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# BOOK OF PROCEEDINGS

# 6<sup>th</sup> SEABC 2020

Sriwijaya Economics, Accounting, and Business Conference  
International Seminar and Conference

**“VUCA 2.0 :  
HOW TO SURVIVE THE UNSTEADY WORLD?”**

**November 18<sup>th</sup>-19<sup>th</sup>, 2020**  
**Faculty of Economics, Universitas Sriwijaya**  
**Palembang, Indonesia**



# 6th Sriwijaya Economics, Accounting, and Business Conference (SEABC) 2020

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## FOREWORD



### **Assalammualaikum Wr. Wb**

Welcome to the Sriwijaya, Economics, Accounting and Business Conference (SEABC). SEABC is scholarly activity consists of international seminar and conference that is expected to give contribution and identify national economic policy, especially in facing ASEAN economic community. In 2020, SEABC is running its sixth year and taking a theme of “VUCA 2.0 : How to Survive Unsteady World ?”.

The Faculty of Economics of Universitas Sriwijaya has organized this important seminar and conference. Many individuals have put that hard work to make this event becomes reality. The papers presented at this conference and included in this proceedings are expected to give contribution to research and technology development (IPTEK).

At last, we would like to thank for all the participants and the presenters that are willing to present their ideas and make this conference possible. We hope this proceedings can be a reference to build our nation and country.

### **Wassalammualaikum Wr. Wb**

**Prof. Dr. Mohamad Adam, S.E., M.E.**

Dean of Faculty of Economics  
Universitas Sriwijaya



# 6th Sriwijaya Economics, Accounting, and Business Conference (SEABC) 2020

## FOREWORD



**Assalamualaikum Wr. Wb**

I am delighted to welcome you to the 6<sup>th</sup> Sriwijaya, Economics, Accounting and Business Conference (SEABC). SEABC is scholarly activity consists of international seminar and conference that is expected to give contribution and identify national economic policy, especially in facing ASEAN economic community. In 2020, SEABC is running its sixth year and taking a theme of “ VUCA 2.0 : How to Survive Unsteady World ?”.

The Economics Faculty of Universitas Sriwijaya have organized this important seminar and conference. This year is special. All of us can't predict this before, the pandemi of Covid – 19. That thing makes all seminar and confence activity do by online. The 6<sup>th</sup> SEABC conference papers were peer reviewed for technical and editorial content by a dedicated committee of referees. We accept nearly 90 papers for oral presentation from 10 countries. These papers were presented in 2 days, 4 sessions each day.

Finally, I would like to thank for all the presenters that are willing to present their ideas and make this conference possible. We hope this proceeding book can give contributes to research and technology development .

**Wassalamualaikum Wr. Wb**

**Agung Putra Raneo, S.E., M.Si**  
Chairman 6<sup>th</sup> SEABC  
Universitas Sriwijaya



# **6th Sriwijaya Economics, Accounting, and Business Conference (SEABC) 2020**

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### Abstract

This study reveals the determinants of faculty members' job satisfaction. The data were collected through survey questionnaires distributed to 32 faculty members of the College of Business Management and Accountancy (CBMA) of Eastern Samar State University (ESSU) – Borongan Main Campus. Both descriptive and correlational methods were utilized to achieve the study objectives. It was found out that the determinants of job satisfaction were age, employment status, and years of work experience. It was concluded that faculty members were very satisfied with their job, however with lesser degree of satisfaction on compensation. It was recommended that the university should consider developing policies that will improve incentives and benefits, will provide opportunities for advancement and promotion, will utilize skills and talents, and adds faculty leisure.

**Keywords:** *Job satisfaction, Faculty, Working condition, Compensation, Work relationship*

### 1. INTRODUCTION

Faculty of a state university plays an important role in human development. They are always at the forefront of developing students to become productive members of society. Job satisfaction among faculty is necessary for them to effectively share their expertise and for the students to attain quality education. Without satisfaction, the faculty can't render the best service to the university.

At present, faculty members are facing many challenges in education and society which may affect their competence, performance, and level of job satisfaction. Issues and concerns regarding the attitude of educators towards their work and their level of job satisfaction and dissatisfaction are all over the news in television and social media.

With the increasing number of enrollments of the college every year, there will be more working pressure on the faculty. This may lead to frustration and dissatisfaction if neglected by top management or authorities. However, it is difficult to apply the incentive measures if we do not know what influence faculty satisfaction.

The success of an institution relies on its academic workforce, the faculty. According to Taskina and Akhler (2009), universities may give more attention to motivate and maintain these human resources to make them more contented and to make the most of their effort by ensuring overall excellence of the organization. Recognizing that job satisfaction of faculty in a university is important, will improve faculty performance through the delivery of quality education to students and will affect the goodwill image of the university. Thus, this research will be conducted.

### Objectives of the Study

1. To determine the personal profile of the faculty.
2. To measure the level of job satisfaction.
3. To determine the best indicator of job satisfaction.
4. To determine if the personal profile is significantly related to the level of job satisfaction.
5. To identify the common suggestions of the faculty to improve their level of job satisfaction.



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## **Significance of the Study**

The intent of this study would be valuable and of great significance to the following, to wit: Top Management. The result of this study will give them positive ideas on the possible action to implement to increase the satisfaction and quality of work of the faculty. This will help them to identify why faculty members are lagging and be able to plan better solutions and assess their needs.

The faculty members. The result of this study is a reflection of how they view fulfillment at work. The support of top management and supervisors may inspire them to be competent faculty and pursue their passion to teach. This will provide practical guidance on how they can overcome obstacles and achieve optimal job satisfaction.

The Future Researchers. This study would serve as a basis in doing the same kind of research undertaken in a wider scope and coverage.

## **2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

The existence of human resources in an organization, in the case of universities the faculty, is of priceless value that management needs to satisfy them to become effective mentors.

Several studies have been conducted to find out which determine job satisfaction and the way it influences productivity in the organization. A significant part of a person's life is dedicated to working and job satisfaction is a crucial indicator of employment (Bota, 2013). According to Buhlev and Scott, as cited in the study of Anju and Sona (2011), modern businesses cannot afford not to make employee satisfaction a top priority.

The job satisfaction of the faculty members plays a vital role in students' education. When teachers are satisfied with their job then only they can perform their responsibilities with more concentration and devotion. Job satisfaction among faculty members is good not only for themselves but for society as a whole. The factors that determine job satisfaction vary according to gender, age, experience and position (Unnamalai, 2015).

Castillo and Cano (2004) found out that faculty were generally satisfied with their jobs. The factor "work itself" was the most motivating aspect for faculty while the least motivating aspect was "working condition". The demographic characteristics were negligibly related to overall job satisfaction.

According to Nifadkar and Dongre as cited in the study of Unnamalai (2015), to ensure a high level of job satisfaction of teachers there is a need to enhance their salary. This is needed to satisfy the pay need of the teachers and also improve the public image and self – esteem of teachers. Teachers working conditions should also be improved to ensure that highly qualified and very experienced teachers are retained in the schools.

It was revealed by Leelavathy as cited in the study of Unnamalai (2015) that job satisfaction variable were positively related to teacher-student relationships, job involvement and role change while, salary, discipline and work environment were negatively related with job satisfaction among women teachers.

Job satisfaction is also understood as a way of reporting the individual to his work situation and is determined by several factors like age, education, skills, work experience, organizational climate, working condition, policy and organizational management (Bota, 2013).

Flaherly (2018) said that most full-time faculty members across institutions are satisfied with their work. At the same time, many professors report an increase in their workload and dissatisfaction with increasing levels of bureaucracy.

Interpersonal relationships among employees serve as a source of support, comfort, advice, and assistance to the individual group members and it will have a positive impact on job satisfaction. Incentives provided to employees based on their performance boosts the morale of the employees (Anju and Sona 2011).



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Bozeman and Gaughan (2011) found out that faculty members are more satisfied with their job when they perceive that their colleagues respect their research work and they are paid what they are worth. Women tend to be less satisfied and the tenured are more satisfied.

Kadtong, Unos, Antok, and Midzid (2017) revealed that the majority of the teachers are somewhat satisfied with school policies, supervision, interpersonal relations, opportunities for promotion and growth, working conditions, work itself, achievement, recognition, and responsibility. This result implies that a teacher satisfied with their job is also productive. If the teachers are contented with their jobs, they develop and maintain a high level of performance. The age, highest educational attainments, and length of service were significant to job satisfaction while sex, civil status was noted having significant difference to job satisfaction.

It was concluded by Taskina and Akhler (2009) that faculty members are overall satisfied with their present condition except on training facilities, some physical facilities, and distribution of courses. It was also revealed that there is no significant difference between male and female faculty members' job satisfaction.

This study is based on the Motivation theory of Herzberg, Mausner, and Syndermeen (1959), as cited by Castillo and Cano (2004) that jobs had specific factors that affect job satisfaction and dissatisfaction. These factors which are considered as determinants of job satisfaction and dissatisfaction are policy and administration, supervision, salary, interpersonal relations, and working conditions. This will help assess employee's level of satisfaction on the different aspects of their work and will serve as a guide in realizing this present study.

### 3. RESEARCH METHODOLOGY

This chapter is composed of research design, the locale of the study, respondents, data gathering procedure, and statistical treatment of data. The study uses both descriptive and correlational methods to achieve the research objectives. This was conducted at the College of Business Management and Accountancy located at Eastern Samar State University-Main Campus, Maypangdan, Borongan City. The college offers five programs namely, Bachelor of Science in Accountancy, Bachelor of Science in Business Administration, Bachelor of Science in Entrepreneurship, Bachelor of Science in Hospitality Management and Bachelor of Science in Tourism Management. The respondents were asked to answer the interview questionnaire honestly. The researchers personally administer the questionnaire to faculty respondents.

The data was analyzed through the R Commander to realize the objectives of the study. The data gathered were tallied, tabulated and analyzed using statistical measures like mean, frequency count and percentage to present the personal profile of respondents and to identify the common suggestions of the faculty to improve their level of job satisfaction. Weighted mean was used to determine the level of job satisfaction which was given qualitative description using the scale below.

Scale	Descriptive Rating	Qualitative description
4.21 – 5.0	Extremely Satisfied	The faculty is extremely satisfied in doing his job
3.41 – 4.20	Very Satisfied	The faculty is very satisfied in doing his job
2.61 – 3.40	Satisfied	The faculty is satisfied with doing his job
1.81 – 2.60	Dissatisfied	The faculty is dissatisfied with his job
1.0 – 1.80	Very Dissatisfied	The faculty very dissatisfied with his job

To find out the best indicator of job satisfaction ranking method was used. Furthermore, inferential statistics like Spearman Rank, Kruskal Wallis, and One-way ANOVA were used to test if the personal profile is significantly related to the level of job satisfaction.



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## 4. RESULTS AND DISCUSSIONS

This section presents a discussion of the results of the study. The responses are presented in tabular form and are analyzed and interpreted according to the sequence specified in the objectives. The profile of the faculty members as respondents consists of age, years of work experience, present rank, employment status, and educational attainment.

**Table 1: Profile of the respondents**

Variable	Mean	Minimum	Maximum
Age	38.91	25	60
Years of Work Experience	11.10	.25	35

The table above presents the profile of the respondents according to age and years of work experience. The respondents consisted of 32 faculty members of the college. The mean age for faculty was 38.91 or 38 years and 11 months old while the mean number of years of work as a faculty was 11.10 or eleven years and 1.2 months. Further, this agrees to the study of Unnamalai (2015) that aside from gender and position, age and experience are factors that determine job satisfaction.

**Table 2: Profile of the respondents**

Variable	Frequency	Percentages
<b>Present rank</b>		
Associate Professor V	1	3.12
Associate Professor III	1	3.12
Associate Professor I	1	3.12
Assistant Professor III	1	3.12
Assistant Professor II	2	6.25
Assistant Professor I	1	3.12
Instructor III	3	9.38
Instructor I	19	59.38
Lecturer	3	9.38
<b>Employment Status</b>		
Permanent	21	65.62
Temporary	8	25
Lecturer	3	9.38
<b>Educational Attainment</b>		
Bachelor's Degree with MA units/CAR	10	31.25
Doctorate Degree	5	15.62
Master's Degree	6	18.75
With Doctorate units/CAR	11	34.38

Table 2 presents the profile of respondents according to present rank, employment status, and educational attainment. It shows that majority of the respondents (59.38%) belong to the Instructor I rank followed by the Instructor III and Lecturer position, 9.38%; Assistant Professor II, 6.25%, followed by those respondents having the position of Assistant Professor I, III and Associate Professor I, III and V with only 3.12% distribution respectively. The data implies that most of the respondents belong to the lowest rank. This means that most of the faculty members are making less income or salary. To enjoy reclassification or promotion of rank the respondents need to earn points in instruction, research and extension for a higher rank in National Budget Circular (NBC) 461 evaluation. A faculty with very satisfactory performance in all functions will earn points for NBC 461 and may be promoted to a higher rank and correspondingly enjoy a higher salary.

Table 2 also shows that the majority of the respondents (65.62%) are permanently employed followed by faculty respondents with temporary status, 25%; and lecturer faculty respondents 9.38%. This trend shows that most respondents are receiving indirect benefits and incentives aside from the basic salary.



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They will feel secure to do their best work and need not worry and stress about the possibility that they could be replaced anytime. With the faculty development program offered by the university, the temporary and lecturers respondents may avail of the scholarship for them to earn a master's degree and be permanently appointed.

The data also show that most of the faculty members (34.38%) have earned doctorate units and/or certificate of academic requirements followed by bachelor's degree with master's units and/or certificate of academic requirements, 31.25%; master's degree respondents, 18.75; and with doctorate respondents 15.62%. These findings disclose that most respondents are pursuing further studies leading to a higher degree and so would be expected to deliver effective instruction, conduct research and participate in the extension activities of the college.

**Table 3: Level of job satisfaction**

<b>Level of Job Satisfaction</b>	<b>Means</b>	<b>Interpretation</b>
<b>Working Condition</b>	<b>3.80</b>	<b>Very Satisfied</b>
No. of hours worked	3.88	Very Satisfied
Location of work	3.97	Very Satisfied
Flexibility of work	3.78	Very Satisfied
Leave credits	3.56	Very Satisfied
<b>Compensation</b>	<b>3.23</b>	<b>Satisfied</b>
Salary	3.18	Satisfied
Benefits/Incentives	3.12	Satisfied
Recognition for work accomplished/achievement	3.16	Satisfied
Opportunities for advancement/promotion (training & further studies)	3.44	Very Satisfied
Security of tenure	4.03	Very Satisfied
<b>Work Relationships</b>	<b>3.91</b>	<b>Very Satisfied</b>
Opportunities to utilize skills and talents	3.75	Very Satisfied
Fair treatment of superiors/higher authorities	3.78	Very Satisfied
Getting along well with colleagues	4.18	Very Satisfied
<b>Work Activities</b>	<b>3.74</b>	<b>Very Satisfied</b>
Variety of job responsibilities	3.66	Very Satisfied
Degree of independence associated with work roles	3.87	Very Satisfied
Interesting and enjoyable work activities	3.68	Very Satisfied
<b>Overall Level of Job Satisfaction</b>	<b>3.67</b>	<b>Very Satisfied</b>

Based on a five-point Likert type scale with responses ranging from very dissatisfied (1) to extremely satisfied (5), the result of the overall level of job satisfaction was 3.67 (n = 32). This shows that the faculty members of the college are generally very satisfied with their work. The highest job satisfaction level is seen in work relationships with 3.91 interpreted as very satisfied. This implies that most faculty members like their colleagues. Work relationships especially getting along well with fellow faculty members is the top indicator that positively affected their overall job satisfaction. This finding supports the study of Anju and Sona (2011) that interpersonal relationships among employees serve as a source of support, comfort, advice, and assistance to the individual group members and it will have a positive impact on job satisfaction.

The findings also show that compensation matters but it is not everything as evidenced by the result of 3.23 interpreted as satisfied. However, this suggests that providing the faculty enough compensation may further increase their level of job satisfaction. The result of the study agrees with the findings of Castillo and Cano (2004) that faculty were generally satisfied with their jobs. However, it contradicts the findings that the factor "work itself" was the most motivating aspect for faculty while the least



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motivating aspect was “working condition”. This study also finds support from the study of Calvin Mzwenhlanhla Mabaso and Bongani Innocent Dlamini (2017) that there is a significant effect of compensation to job satisfaction.

**Table 4: Ranking of indicators of job satisfaction**

Level of Job Satisfaction	Means	Rank
Work Relationships	3.91	1st
Working Condition	3.80	2nd
Work Activities	3.74	3rd
Compensation	3.23	4th
Overall Level of Job Satisfaction	3.67	

Table 4 shows the ranking of indicators of job satisfaction. The first rank is work relationships, followed by working conditions as the second rank, the third rank is work activities and the last rank is compensation. The findings suggest that the best indicator of job satisfaction is compensation. Pay and benefits may not always be the biggest motivator for faculty as in this study, they are satisfied with their compensation, but by paying faculty enough to sustain their needs will certainly help them to be productive and work harder to demonstrate that they deserve the pay they receive. The findings of this study confirm the study of Nifadkar and Dongre as cited in the study of Unnamalai (2015), that to ensure a high level of job satisfaction of teachers there is a need to enhance their salary. This is needed to satisfy the pay need of the teachers and also improve the public image and self – esteem of teachers. Further, Anju and Sona (2011) confirms that incentives provided to employees based on their performance boost the morale of the employees.

**Table 5: Relationship of respondents’ profile to their level of job satisfaction**

Independent Variable	Dependent Variable	P-value	Correlation/Diff. in Mean	Interpretation
Age	Job Satisfaction			
	Working Condition	.11	-.29	NS
	Compensation	.06	-.32	NS
	Work Relationship	.26	-.20	NS
	Work Activities	.06	-.34	NS
	Overall Job Satisfaction	.03	-.36	S
Rank	Job Satisfaction			
	Working Condition	.82	-	NS
	Compensation	.80	-	NS
	Work Relationship	.29	-	NS
	Work Activities	.49	-	NS
	Overall Job Satisfaction	.75	-	NS
Employment Status	Job Satisfaction			
	Working Condition	.11	-	NS
	Compensation	.00	Temporary > Permanent	S
	Work Relationship	.29	-	NS
	Work Activities	.49	-	NS
	Overall Job Satisfaction	.00	Temporary > Permanent	S
Years of Work Experience	Job Satisfaction			
	Working Condition	.17	-.25	NS



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	Compensation	.00	-.47	S
	Work Relationship	.12	-.28	NS
	Work Activities	.05	-.35	S
	Overall Job Satisfaction	.02	-.40	S
Educational Level	Job Satisfaction			
	Working Condition	.772	-	NS
	Compensation	.174	-	NS
	Work Relationship	.890	-	NS
	Work Activities	.268	-	NS
	Overall Job Satisfaction	.588	-	NS

Table 5 shows the relationship of respondents' profile to their level of job satisfaction. The hypothesis was tested at .05 level of significance and test of normality was done using Shapiro Wilk. Spearman rank was used to test if age and years of work experience are correlated to the faculty's job satisfaction. On the other hand, One-way ANOVA and Kruskal Wallis were used accordingly to test if rank, employment status, and educational level are factors of job satisfaction.

Based on the analysis, age was found out to be negatively related to job satisfaction ( $\rho = -.36, p < .05$ ). This implies that younger faculty members are more satisfied than the older ones. This finding is similar to the finding of Unnamalai (2015) stating that age is one of the factors that influence job satisfaction.

Employment status was also found to be a variable that influences job satisfaction. The difference lies in compensation between temporary and permanent faculty. Temporary faculty members have shown higher job satisfaction than the permanent ones. This only means that temporary faculty members are more satisfied with their compensation than the permanent faculty.

Years of work experience was another factor found to be negatively correlated with job satisfaction ( $\rho = -.40, p < .05$ ). Specifically, it is negatively correlated to compensation and work activities. This result means that faculty with few years of experience are more satisfied with their compensation and work activities than those with long years of experience. It can be inferred that new entries and those with just a few years of teaching experience were more contented with their compensation and enjoy their work activities at higher degree compared to those who have more years of teaching experience.

However, rank and educational level are variables not found to influence the level of faculty job satisfaction. This result contradicts the findings of Guo (2017) that professional rank is the most important factor for teachers in the university.

Further, the result of the study revealed that younger faculty even with temporary status and with few years of teaching experience has shown higher satisfaction because at first a faculty or any employee for that matter is motivated to work to satisfy basic physiological needs for survival before moving to a higher level need. As a person grows older, his wants and needs change and increase thus, resulting in a decrease of a certain level of satisfaction from his job if some of his wants and needs are not satiated.

**Table 6: Suggestions of faculty to improve the level of their job satisfaction**

Suggestions	Frequency	Rank
Provide additional benefits/incentives like healthcare and others	9	1
Increase salary	5	2
Develop work activities to utilize the skills and talents of faculty	3	3
Lessen reportorial works/paperwork	2	4.5
Provide more opportunities for professional advancement	2	4.5

Table 6 shows the consolidated suggestions of faculty that will help in improving their job satisfaction. The first in rank suggestion having the highest frequency was "provide additional benefits/incentives like healthcare and others". The second was "increase salary", followed by "enhance work activities to



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utilize skills and talents of faculty". The last in rank suggestions were "Lessen reportorial works/paperwork" and "Provide more opportunities for professional advancement".

Based on this result, it is revealed that suggestions on improving job satisfaction fall on improving compensation. The findings confirm the study of Calvin Mzwenhlanhla Mabaso and Bongani Innocent Dlamini (2017) that higher education institutions must improve their compensation strategy to boost employees' dedication that will enable commitment, while efficiently deliver outstanding results. Indicators like salary, benefits/incentives, recognition for work accomplished/achievement, opportunities for advancement/promotion (training & further studies) were suggested to be taken into account. Work activities that will utilize faculty's skills and talents and lessening of reportorial works/paper works were also disclosed to improve the faculty's job satisfaction.

It can be inferred from this result that faculty members highly value compensation, skills and talents, and leisure time.

### 5. CONCLUSION

This study analyses the level of job satisfaction of CBMA faculty members as well as the factors determining it. The result showed that faculty members have a mean age of 38 years and 11 months, with an average of 11 years and 1.2 months of work experience. The majority of them are Instructor I, with a permanent position, and with Doctorate units/CAR. They were very satisfied with their job, however with a lesser degree of satisfaction on compensation which was found to be the best indicator of their job satisfaction.

Age, employment status, and years of work experience are the factors found to influence job satisfaction, specifically compensation. On the other hand, rank and educational level do not influence the faculty's job satisfaction. The top suggestions direct on improving compensation, work activities, and leisure.

Based on the analysis of the findings of this study it is concluded that CBMA faculty members are very satisfied with their job, however with lesser degree of satisfaction on compensation which is determined by age, employment status, and years of work experience.

### LIMITATION AND STUDY FORWARD

This study is conducted to measure the level of job satisfaction of CBMA faculty members and to find out the best indicator of job satisfaction to identify what could improve their level of satisfaction. Further study is suggested to understand the determinants of faculty members' job satisfaction to improve their productivity.

### ACKNOWLEDGEMENT

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## OVERCOMING THE COVID-19 PANDEMIC CRISIS IN KOREA: MAJOR LESSONS AND POLICY IMPLICATIONS

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### Abstract

This paper examines the impact of the Covid-19 pandemic crisis on the Korean financial market and economy and the policies of government and the Bank of Korea for the first half of 2020. It also tried to evaluate their economic performance. For this purpose, it investigated the recent movement of several financial indicators and production indices and compared them with those of 2008-09 Global Financial Crisis. First, Korea was one of the first countries where the pandemic crisis occurred keeping allowing foreigners from all around the world to come. Second, the financial market instability in Korea was caused not by the rise of the number of positively tested cases in Korea but by the turmoil of the international financial market made by the rise in western countries. Third, the size of the impact of the pandemic crisis on the Korean economy was less than those of other countries of western Europe or US. However, it was quite like that of the Global Financial Crisis. The pandemic crisis failed to bring the bankruptcy of any financial institutions in Korea. Fourth, these impacts of the pandemic crisis were different across the sectors and industries. And finally, the Bank of Korea and the Korean government applied several policy instruments to minimize the negative influence from the turmoil of the international financial market and finally achieved much of its purpose.

**Keywords:** *Pandemic Crisis, Korean economy, Financial Market, Epidemic Covid-19, The Bank of Korea*

### 1. INTRODUCTION

Korea has been undergoing the pandemic crisis of COVID-19 since the first positively tested cases was reported in January 24, 2020. It was widely expected that Korea would experience this Covid-19 pandemic crisis from the early days of outbreak of Covid19 and Korea should eventually pay a very high price for it. Korea was very adjacent geographically to China where the pandemic crisis was originated, and its economic structure was widely open to all over the world. Despite all these arguments, Korea successfully managed the pandemic crisis by reducing its damage on economy within a certain limit for the first half of 2020.

As of June 30, 2020, the five months after the outbreak of Covid-19 in Korea, the number of cases of the tested positively for Covid-19 amounted only 12,800, and that of death did 282 respectively. Considering that the number of cases of the tested positively for Covid-19 in the world was more than 10 million and that Korean government made the Covid-19 tests as many as 1,273,766, it can be said that not many number people are tested positively in Korea. Furthermore, Korean government did not declare any nationwide lock-down nor Korean people did not suffer from a substantial drop of economic activities except for some sectors. In other words, despite all these unfavorable conditions, Korea was regarded as one of the least affected countries from the pandemic among high-income countries.

This study examines the effects of the Covid-19 pandemic crisis on the Korean economy and attempts to analyze the policies of the Korean government and the central banks. The main analysis in this study are as follows. First, it examines the development process of the pandemic crisis in Korea and its effect on the national economy. In particular, the size of the shock from the pandemic crisis is compared with those of other countries, and those of Korea during 2008-09 Global Financial Crisis. It extensively examines the two financial markets of the stock market and the foreign exchange market and industrial production by industry and by sector.

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Second, it investigates the policies of Korea government and central bank to overcome this pandemic crisis. The recent Korean government's policies are largely made of the public health policy to prevent Covid-19 and the economic recovery policy to reduce its damage on economy. This study mainly focuses on the latter. It extensively examines the economic policy such as monetary policy and fiscal policy to reduce the contraction of the economy after the outbreak.

Third, it attempts to explain why Korean economy outperformed those of other countries by the above analysis. It evaluated recent development of Korean economy in connection with the policy of Korean government and Korea's political and economic characteristics. In addition, it presents the reasons why the Korea and Korean government were ready to overcome the recent economic crisis

This study did not take any rigorous econometric analysis such as estimating any regression model or time series analysis. Instead, it tries to describe the movement of economic indicators and policy measures made by Korean government and the central bank. The aim of this paper is not to test or check any economic theory applying the data of Korea but to find policy implications and lessons by examining the impact of the pandemic crisis on Korean economy and policy response of Korean government and the Bank of Korea.

This paper is made of four chapters. Chapter 1 is an introduction while Chapter 2 examines the development process of Korea's pandemic crisis, the movement of the economy and government policies. Chapter 3 evaluates the economic performance and government policies and derives some policy implication and lessons. Chapter 4 presents the concluding remarks of the study.

## **2. Pandemic Crisis and Korean Economy**

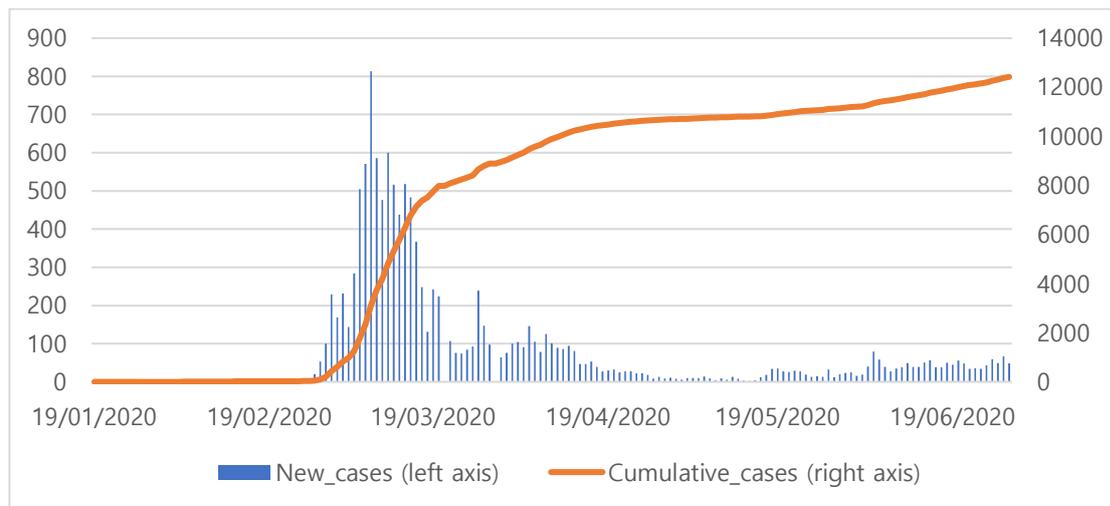
### **Outbreak of the Pandemic Crisis in Korea**

The first positively tested case of Covid-19 in Korea occurred on the day of 20<sup>th</sup>, January 2020. The positively tested person was a 35-year-old Chinese traveler from Wuhan, known as the place, where the Covid-19 outbreak occurred for the first time in the world. When she entered Incheon International Airport on the 19<sup>th</sup>, a high fever was detected during the quarantine process and then he was transferred into the designated hospital for the Covid-19 patient. Afterwards, a coronavirus infection test was conduct on her and she turned out to be the positively tested in the morning of the 20<sup>th</sup>. The second positively tested case was the Korean who returned home from Wuhan on January 22<sup>nd</sup>. He also received a quarantine guide at the airport because of high fever, and after being checked for Covid-19 at a local health center on the 23<sup>rd</sup>, he become the first Covid-19 tested positive person on the 24<sup>th</sup>. As such, the first group of infected people were checked at the initial quarantine stage. For the next four weeks, one or two daily new tested positive cases were reported and as a result, and it did not take much public attention in Korea.

However, the number of daily new cases increased very rapidly from the 19<sup>th</sup> of February, when a mass outbreak occurred in a certain religious group called Sincheonji in the inland city of Daegu with a population of 2.5 million. The epidemic spread at a large rally among believers who attended some special religious activities. In addition, the number of deaths substantially increased as very rapid speed when it spread into the near-by elderly nursing home. On February 29, the number of new occurrences per day reached a maximum of 813, and the total number of positively tested cases increased to 3,150 as shown in Figure 1. Afterwards the number of newly positively tested cases began to decrease gradually and reach to 76 people on March 15 and to 8 people on April 18. During May and June, the average number of people of the daily newly positively tested remained as 23 and 40, respectively.



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Source: WHO, <https://covid19.who.int/>

**Figure 1: The Number of Positively Tested Cases in Korea**

Korea has about 50 million people densely living in a relatively small area of 100,000 km<sup>2</sup>. Particularly, Seoul, the center city of politics and economy with 10 million people was regarded as one of the most densely populated cities. As a result, there was a very high risk that Korea might have numerous casualties and economic downturn in the event of an epidemic. Nevertheless, the number of positively tested for Covid-19 and dead people in Korea turned out to be much smaller than those of other countries with similar populations and size of the economy. At the end of June, the number of positively tested cases and the death are reported as 12800 and 282.

The most important characteristic of Korea's case is that the transmission of the virus to the general public was not large. Instead, it penetrated a specific group. For example, as of the end of March, when the number of positively tested case was the highest, the total number of positively tested case was 9887, of which 8260 or 83.5% of them were related to a specific religion group called Shincheonji. For this reason, many people thought that the epidemic could be resolved if each person was more careful on his personal health. Korean government did not take any extreme measures such as nationwide lockdown or regional blockades to prevent the spread of Covid-19. Most of the people did their daily activities, and only special administrative recommendations were made for specific groups or specific places. The openings of elementary, middle, and high school in the new semester of 2020, scheduled for March 2, were delayed to May 13, and the most lecture of universities were also replaced by online one. This is because the examination for Covid-19 and the quarantine for the positively tested people were implemented very systematically. The transparency of system and strong public trust on the system also contributed to it, too.

Several reasons may explain this relatively mild and slow expansion of Covid-19 in Korea. The Korean government took a very aggressive and diverse policy in the early stages to prevent the spread of Covid-19. For example, the Prime Minister established a temporary office in the city of Daegu where epidemic occurred. He hosted semi-cabinet meetings, showing his enthusiasm and willingness to take care of this crisis. In addition, Korean government selected volunteers of medical doctors and nurses from all over the country and made them work at the local hospital in Daegu from the early stage of the pandemic crisis. It also made several new experiments such as separating mild patients from severe patients and placing the mild ones in nearby accommodations which has relatively not well-equipped with medical devices. In addition, it showed the world-first drive-through Covid-19 test lab. It implemented Covid-19 test on potentially infectious people by a very large scale to find infection one.

Second, Korea was well-prepared for the epidemic at the time of outbreak. The diagnostic kits were adequately provided, and Covid-19 related facilities and national manuals for outbreak were prepared to some extent. It was an outcome of the outbreak of MERS in 2015 which costed the death of 39 people.

Third, people actively cooperated with the guidance of the government. People did not hesitate from wearing the medical marks on their face and from stopping their outdoor activities. Social distanced actively were observed across the country. This was also related to the customs of Korean people of the past. Almost every spring, the yellow dust blow from China for thousands of years, making it difficult for people to breathe. Moreover, the recent fast economic growth in China put various environmental pollutants into it. As a result, Koreans used to wear a facial mask for sometimes. This could greatly reduce the spread of infectious diseases among Koreans.

It was quite surprising that Korean government did not take any strong nationwide infection prevention measures such nationwide lock-down or banning of foreigner incomer during the time of the pandemic crisis. In the early days of the outbreak, some argued that government should ban the entry from China or later it should block the entry from US when the epidemic was the most prevalent in the United States. Korea is a country which has achieved its economic development with export-oriented development strategy with foreign partners. Its ratio of trade over GDP has been as high as 80 percent. As a result, Korean government could not afford the risk of economic or political isolation from other major trading partners. Furthermore, this policy of openness policy is in line with the current government's political stand. The current president and ruling party claimed that the government and its policy should be transparent, and it should disclose its information as much as possible. At the early days of the pandemic crisis, several questions and argument were raised about these policies, but over time, many people recognized the excellence of these policies, which in turn led to good results.

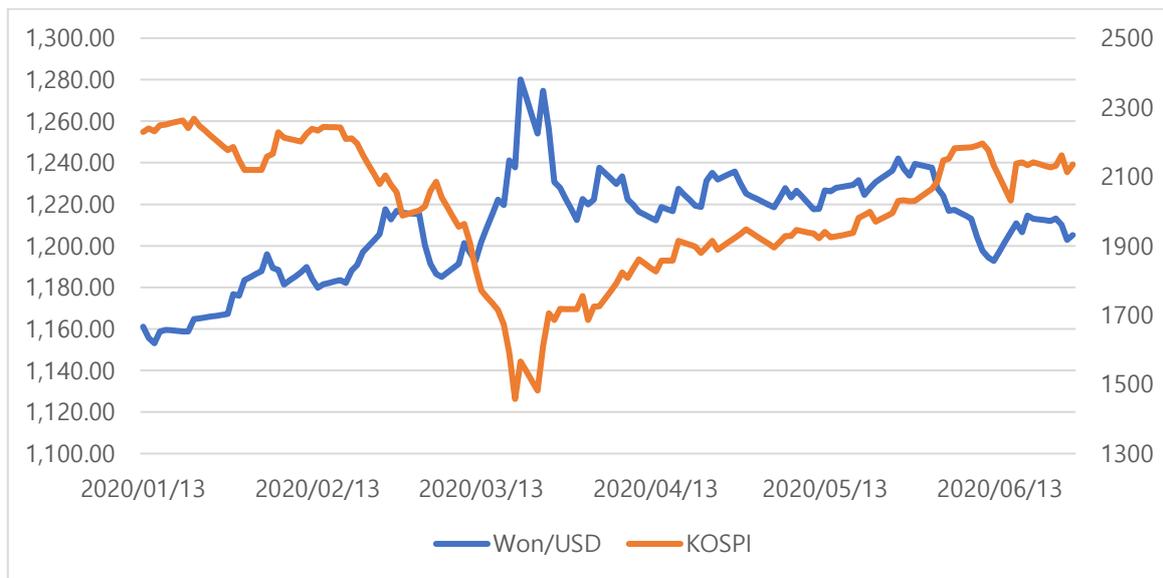
### **The Pandemic Crisis and Financial Market and Industry**

It was the stock and foreign exchange markets which showed the first response to the Covid-19 pandemic crisis in Korea. As the number of positively tested cases increased in February 20, KOSPI (average stock price index of Korea Stock Exchange) began to fall very quickly. As shown in Figure 2, KOSPI dropped to 1457.6 on March 19<sup>th</sup>, which was lower by 31.4 percent than that of the end of January. Afterwards, KOSPI has shown a gradual upward trend and finally reached to 2108.3 as of end of June like that of the end of January.

Meanwhile, the Won/Dollar exchange rate in the Korean foreign exchange market showed a similar but different movement. After the pandemic crisis occurred in March, the Won/Dollar exchange rate rose very quickly but has stabilized soon and move at a relatively stable level for months. It moved at the level of 1170 won throughout January but began to rise very sharply from February 20 and finally reach to 1280 won on March 20, but quickly turned to a downward trend and moved from 1200 to 1230 since then.



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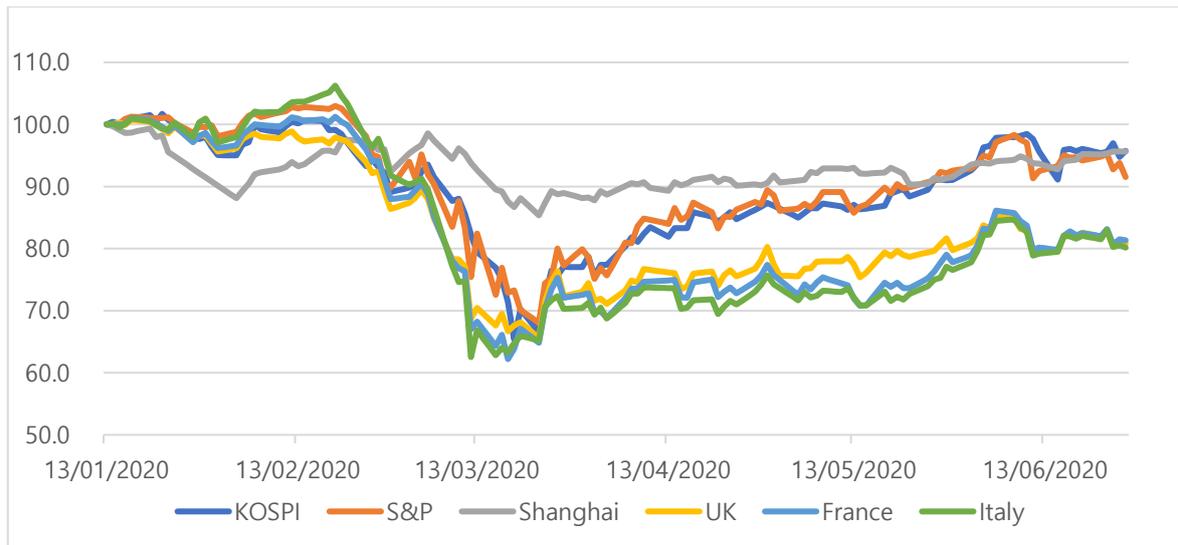
Sources: BOK Statistics website, [ecos.bok.or.kr](http://ecos.bok.or.kr)

**Figure 2: Trends in Korea's share price and US dollar exchange rate**

Several interesting facts were noticeable in the financial market. First, the movement of Korea's stock price and exchange rate were substantially affected by the rise and fall of the number of domestic positively tested cases at the early stage of outbreak. As the number of daily new positively tested cases increased rapidly one to 20, 53 and 100 from the 19<sup>th</sup>, 20<sup>th</sup> and the 21<sup>st</sup> of February and finally reached to the maxim level of 813 on the date of 29<sup>th</sup> of February, the financial market responded immediately. In particular, the KOSPI fell from 2208.8 on the 19<sup>th</sup> to 1992.2 at the 28<sup>th</sup> and the exchange rate rose from 1188.1 to 1215 for the same times. Afterwards the number of daily new cases decreased and at the same time, KOSPI also turned upward and the exchange rate did downward. On March 5, KOSPI recovered to 2085.3 and the US dollar exchange rate to 1185.0 won.

Second, the instability of international financial market caused by the pandemic crisis did give bigger shock to the Korean financial market than the number of domestic positively tested cases. During the two weeks since March 6, the number of daily newly positively tested cases in Korea had steadily decreased. However, the instability of the financial market had further increased, causing the KOSPI to drop and the exchange rate to rise sharply. In the end, KOSPI fell 1457.6 on March 19, recording about 31.2% decrease from the end of January.

To check these in more detail, the stock prices index of Korea and indices of world's major stock markets were examined as in Figure 3. Their values were standardized to 100 to those on the date of January 13 when the first cases of Covid-19 are known in China. It is easily seen that KOSPI moved very closely to those of the developed countries. The stock prices indices of major countries and KOSPI showed almost the same pattern in terms of the time of reaching the local trough and the time of recovery. Moreover, it is quite surprising that the degree of drop compared to the previous high point of these indices was generally similar at 35%. After all, it can be said that the biggest influence on KOSPI was not the number of newly positively tested persons in Korea, but the movement of the stock price indices of global financial markets. Furthermore, the co-movement among S&P500 and KOSPI are quite noticeable among those of other indices. Their types of fluctuation, speed of decrease or increase or the date of turning direction were quite the same.



Source: Yahoo finance, <https://finance.yahoo.com/world-indices>

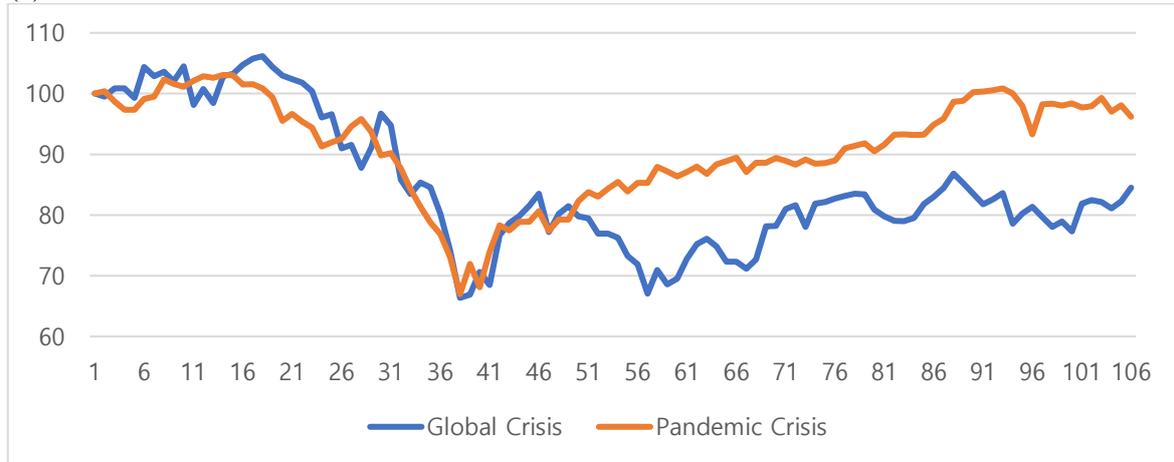
**Figure 3: Stock index of major global stock market**

Fourth, Korea's Won/Dollar exchange rate rapidly depreciated due to turmoil in the international financial market since March 6. However, it became quickly stabilized after the announcement of the \$60 billion value of currency-swap agreement between the Bank of Korea and the Federal Reserve Board (Fed) of the United States on March 19. It only took one week that Won/Dollar exchange rate went back to the level before the Crisis. It was a quite contrast that KOSPI took about the three months to reach the level of the pre-pandemic crisis.

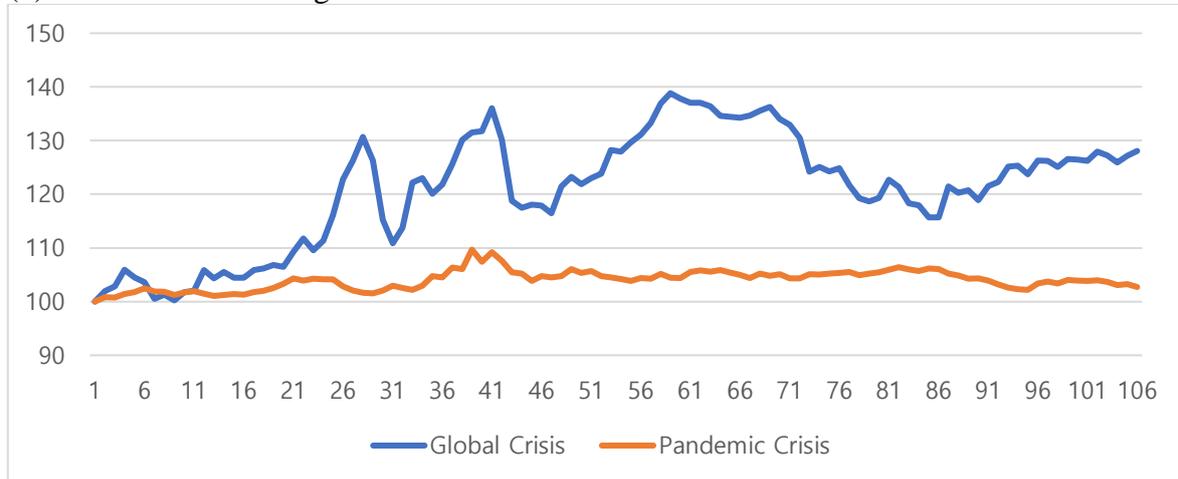
Fifth, the size of impact of the pandemic crisis on KOSPI looks similar to that of 2008-09 Global Financial Crisis but the recovering speeds are quite different. Figure 4 shows both the movement of Korea's stock price and exchange rate during the pandemic crisis in 2020 and the Global Financial Crisis. In these graphs, the values of KOSPI and Won/Dollar exchange rate were expressed as indices. The first day of outbreak or crisis was set up as a basis day when the indicator are set as 100. As a result, the beginning time at the global financial crisis and Korea's pandemic crisis was set as September 1, 2008 and January 28, respectively.<sup>1</sup> Surprisingly, the difference between the maximum level and the minimum of KOSPI of Global Financial Crisis and the pandemic crisis were quite similar as 37.3% and 34.9%, respectively. However, the values of KOSPI during the recovery period are quite different. Three months after passing the minimum point of KOSPI at each crisis, KOSPI of Global Financial Crisis recovered only up to 80 percent level of the pre-crisis while that of the pandemic crisis did almost all the pre-crisis level.

<sup>1</sup> The Lehman Brothers filed for Chapter 11 bankruptcy protection at September 15, 2008 and thereafter, the stock prices of New York Stock Exchange and other ones fell very rapidly. On the 24<sup>th</sup> of February 2020, the first Korean was tested positively for Covid-19. 28<sup>th</sup> of February was the first working day after the 24<sup>th</sup>.

(a) KOSPI



(b) Won/Dollar Exchange Rate



Note: the horizontal axis represents the number of days after the basis dates of two crises of Global Financial Crisis Of 2008-09 and pandemic crisis of 2020. They were September 1, 1998 and February 28, 2020.

Source: Yahoo finance, <https://finance.yahoo.com/>

**Figure 4: KOSPI and Won/Dollar Exchange Rate during the pandemic crisis and Global Financial Crisis**

Sixth, the effect of the pandemic crisis on the foreign exchange rate was substantially smaller than that of Global Financial Crisis. At the time of Global Financial Crisis, Korean won depreciated up to around 40% while that at the pandemic crisis did only up to 10%. At the same time, the speed of rate of recovery was much faster during the pandemic crisis than the Global Financial Crisis.

### Pandemic Crisis and Macroeconomy and Industry

The Covid-19 Pandemic crisis brought a very severe economic difficulties in Korea Like most of the other countries, its production activities rapidly fell and economic recession came. This paper investigated the movement of major economic indicators such as Korea's monthly industrial production index and service production index to see the impact of the pandemic crisis. To evaluate the size of the impact, it compared it with that of the Global Financial Crisis of 2008-09.

Figure 5 shows the monthly industrial production indices right after the crises of the pandemic crisis and Global Financial Crisis of 2008-09. These values are also normalized by the level at the time when the crisis occurred.<sup>2</sup> Several interesting implications can be derived from it. First, Korea's industrial production index has declined continuously since February 2020 when the outbreak occurred. They all took a downward trend for more than five months and moreover, their sizes of decrease are not much different from with each other. However, it was quite different from that of financial indicators such as KOSPI or Won/Dollar exchange rate, which showed a sudden and rapid change only during the March and turned into a recovery trend. This difference is easily understandable if we accept that the financial market adjusts more quickly than the real economy. Second, the amount of decrease of the industrial product index of all industry during the pandemic crisis was less than that of Global Financial Crisis. For the four months during the pandemic crisis in Korea, industrial production index felt by 7.3 percent while it did by more than 9.2 percent during the same periods of the Global Financial Crisis. Third, negative impacts across the industries during these two crises are quite different. In Global Financial Crisis, the industrial production index of manufacturing industry fell more than 21.7 percent for the first four months after the crisis occurrence. However, in the pandemic crisis, it did only by 12.0 percent for the same period. On the contrary, industrial production index of service industry decreased more during the pandemic crisis. During the first three to four months after the pandemic crisis occurrence, the index of service production decreased by 7.7 percent. However, those of Global Financial Crisis, it did only by 2.3 percent.

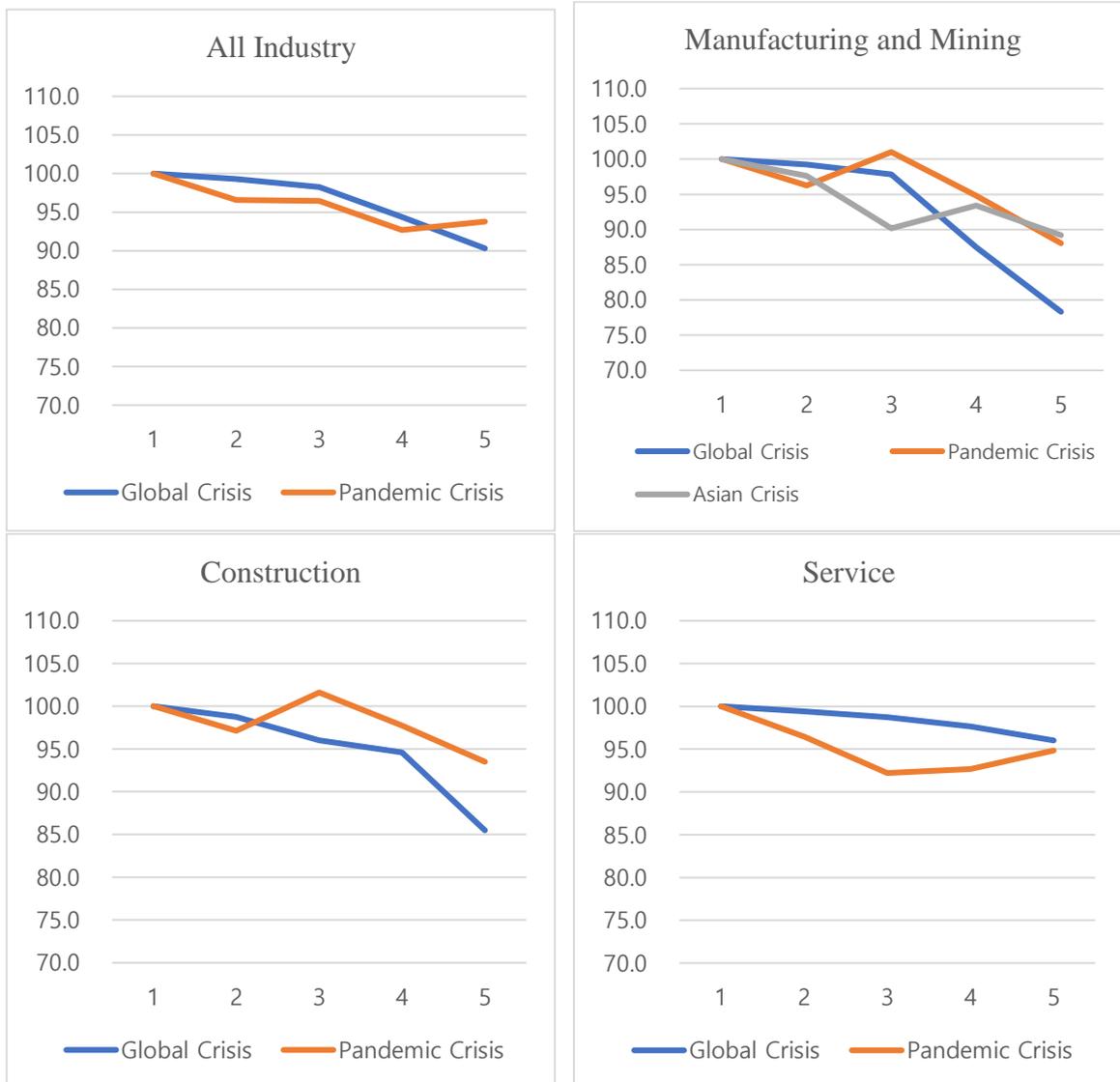
In order to examine this difference in more detail, we checked the production indices of 13 subsectors of service industry as shown in Figure 6.<sup>3</sup> They are also standardized like industrial production indices in Figure 5. It shows that the impact of the pandemic crisis on subsectors of service industry are quite different from each other. For example, some industries of (1) arts, sports and leisure related service industries, (2) lodging restaurant businesses, (3) assessed to be associations and organizations, repair and other personal service industries are severely negatively impacted. In particular, the service industry related to arts, sports, and leisure fell as high as by 50.3% for the several months. The production indices of lodging and restaurant businesses, and transportation warehouses also decreased by 25.2 percent and 20.0 percent for the same period, respectively.

This is also easily understandable if we checked the cause of the recent crisis. The pandemic crisis was expanded through the contagion of the Covid-19 and consequently, people were advised either to stop or at least to reduce their outdoor activities and social meetings. In addition, a nationwide social distance campaign also discouraged such activities. As a result, various conferences and meetings were canceled and even the opening of school was delayed for almost two months. It is no wonder that the service sector of travel, lodge, retail, and restaurants had experienced such a rapid shrink of their demand.

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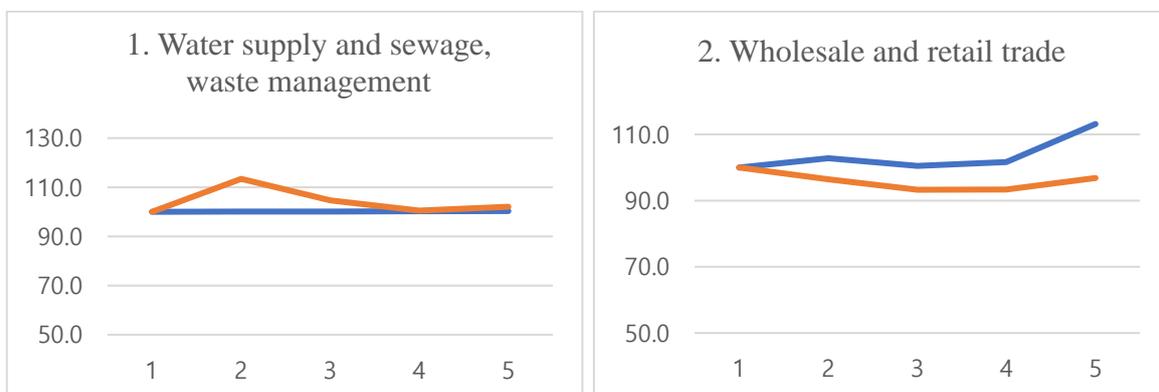
<sup>2</sup> The value of the monthly industrial production index of September of 2008 was set to 100 in the case of 2008-09 Global Financial Crisis while that of January 2010 was done in the case of the pandemic crisis of 2020.

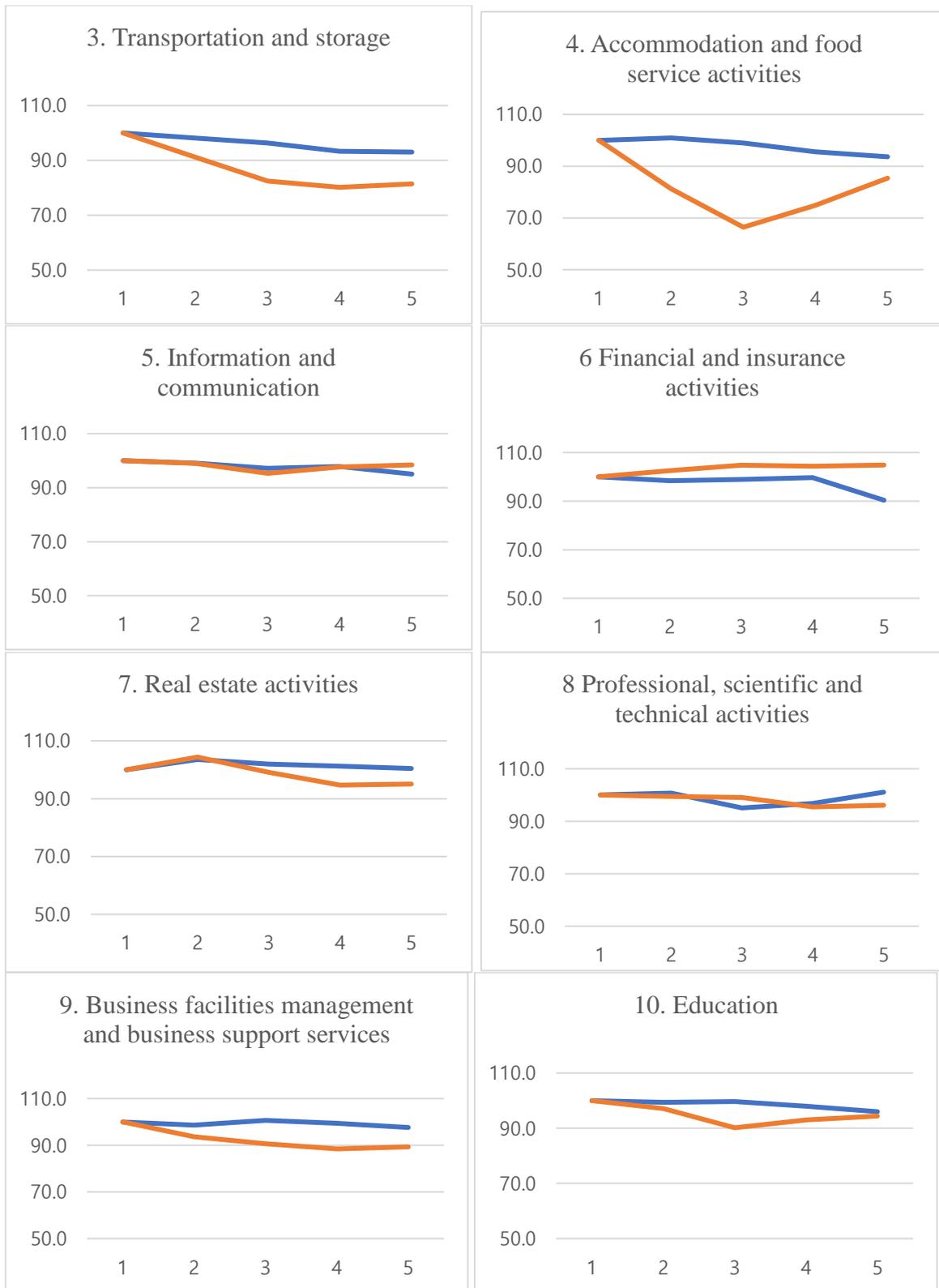
<sup>3</sup> Service subsectors are as follows: ① Water supply; sewage, waste management, materials recovery, ② Wholesale and retail trade, ③ Transportation and storage, ④ Accommodation and food service activities, ⑤ information and communication, ⑥ Financial and insurance activities, ⑦ Real estate activities ⑧ Professional, scientific and technical activities, ⑨ Business facilities management and business support services; rental and leasing activities, ⑩ Education, ⑪ Human health and social work activities, ⑫ Arts, sports and recreation related services, ⑬ Membership organizations, repair and other personal service

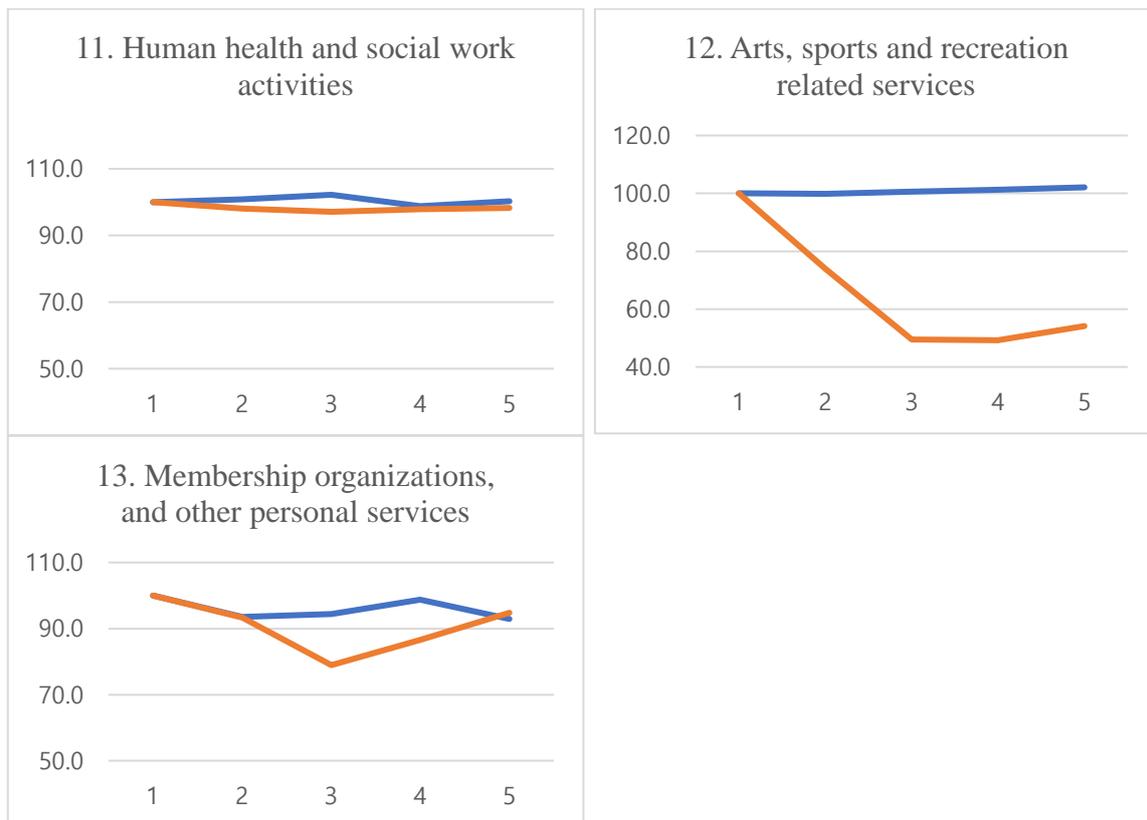


Source: Korea Statistics, <http://kostat.go.kr/portal/eng/index.action>

**Figure 5: Industrial Production Indices of Korea After the Occurrence of Crisis**







Source: Korea Statistics, KOSIS data base <http://kosis.kr/eng/>

**Figure 6: Industrial Production Indices of Service Sector After the Occurrence of Crisis**

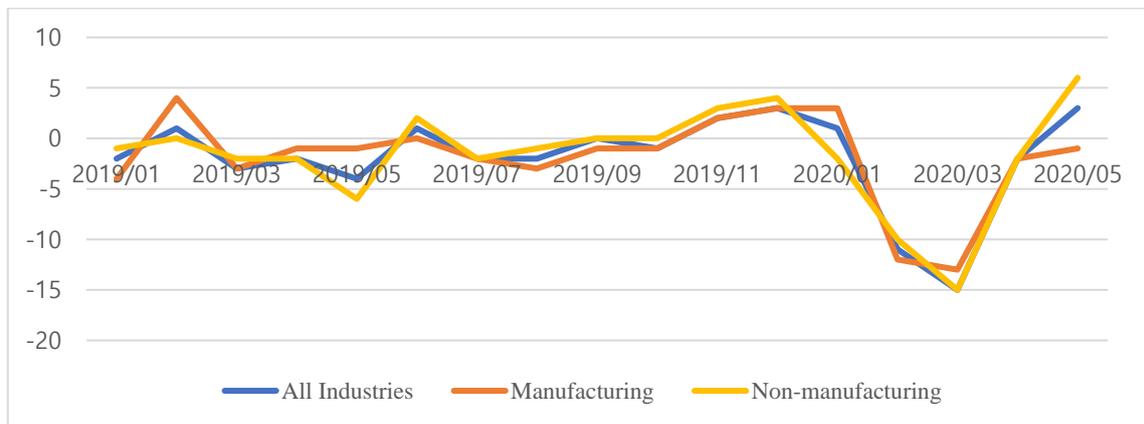
Meanwhile, we examine the impact of the recent drop of production more in detail by estimating the unexpected shock from overall production index.<sup>4</sup> For this purpose, we compare actual value of business survey index and the one month ahead forecast value of business activity of business survey index from January to May of 2020. Figure 7 shows the difference of actual values of business survey index and its one month ahead expected value while Figure 8 and Figure 9 show their cumulative values from February to May after the outbreak by sectors. These figures present the following important features.

First, the difference between actual value and forecast value of BSI sharply fell into negative values from February to April as shown in Figure 7 and become stabilized at May. The cumulative value for all industries during the three months from February to April amounted to 25 percent. It means that for these three months, business sector received very large unexpected shocks and four months later finally they were able to adjust their business activities into a new era.

Second, Figure 8 and Figure 9 shows the cumulative value of difference of actual value and predicted value of BSI for four months from February to May. They indicate that the cumulative value of all industry reached to 25% for four months from February to May and those of manufacturing sector and non-manufacturing sectors are not much different. However, if look at the value of each sector in more detail, they were substantially different from each other. Small-sized companies in manufacturing and exporting sector turns out to receive more unexpected shocks than other types of companies. Within the

<sup>4</sup> According to Lucas and other economists, it is the unexpected shock which made a substantial economic impact on the business activities of the economic agents. (Mishkin, 1982)

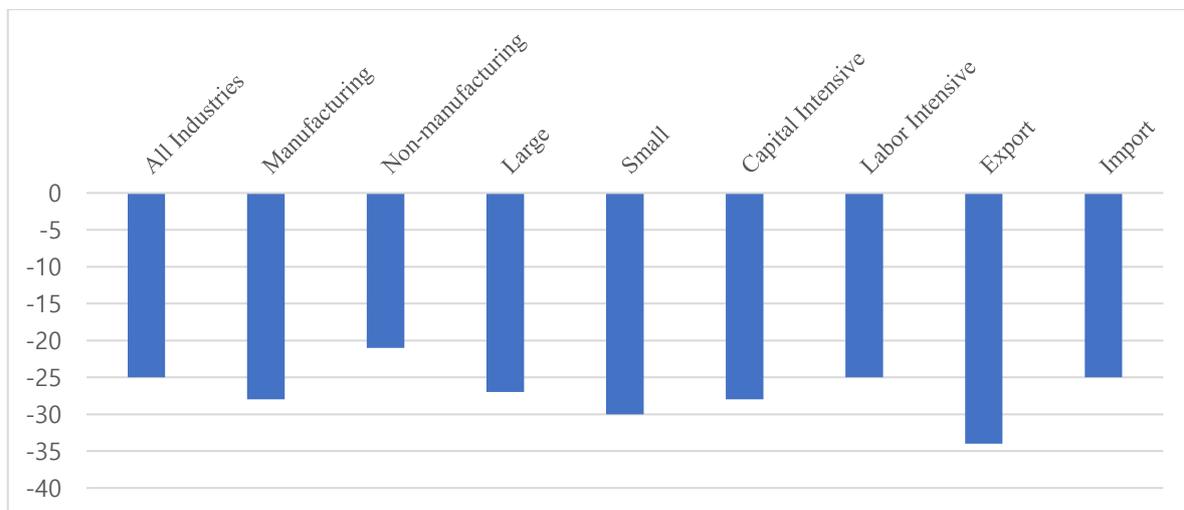
manufacturing industry, the automobile, clothing, medical equipment, and wearing apparel sectors took more unexpected shocks as shown in Figure 9. In particular, the cumulative amount of unexpected shock reached up to 50 percent in the automobile sector and medical equipment sector. The accommodation sector had the largest unexpected shock among the non-manufacturing industry. In addition, transportation service and art and sport service sectors are also shown to take the very large unexpected shock.



Note: the positive value means that the actual economy is better than their one-month ahead forecast. Vice versa.

Source: Korea Statistics, KOSIS data base <http://kosis.kr/eng/>

**Figure 7: Difference of Actual Value – Forecast Value of BSI**



Note: the negative value means that the actual economy is worse than their one-month ahead forecast. Vice versa.

Source: Korea Statistics, KOSIS data base <http://kosis.kr/eng/>

**Figure 8: Cumulative Value of Difference of Actual Value – Forecast Value of BSI.**

Finally, we check the pandemic shock on external trade sector of economy. For this purpose, we examine the export and import growth rates and trade balance of Korea up to June of 2020 as in Figure 10. It shows that Korea's imports and exports did not change much until March 2020 but began to fall after April. The export and import decreased by 19.9% and by 16.1%, respectively, from April to June. Therefore, we may conclude that the pandemic crisis greatly reduced Korea's foreign transactions. Meanwhile, the trade balance deteriorated from April to June. Rapid contraction of the export sector made trade balance turn from surplus to deficit in April. As a result, the trade surplus in Korea in

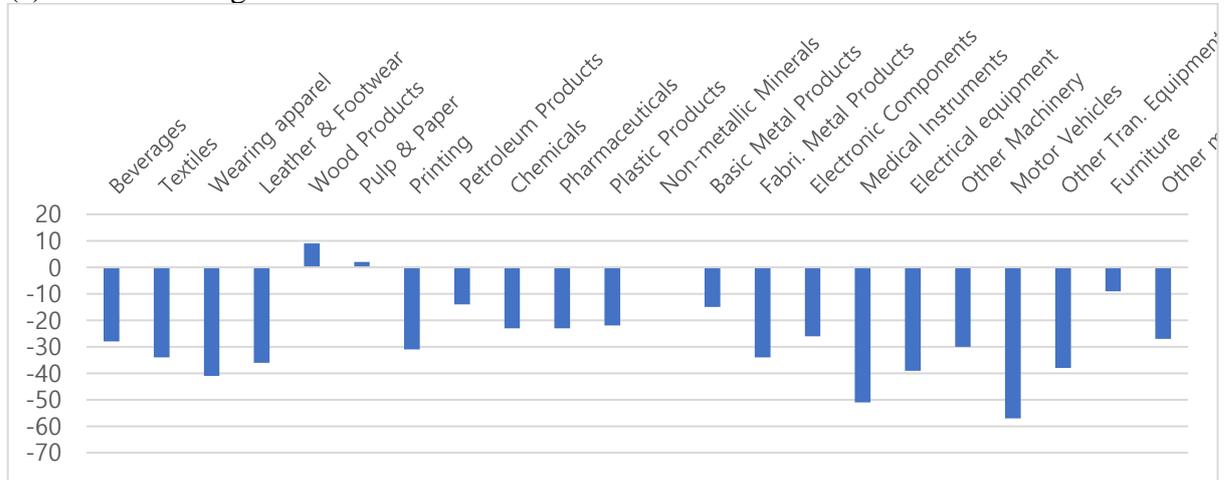
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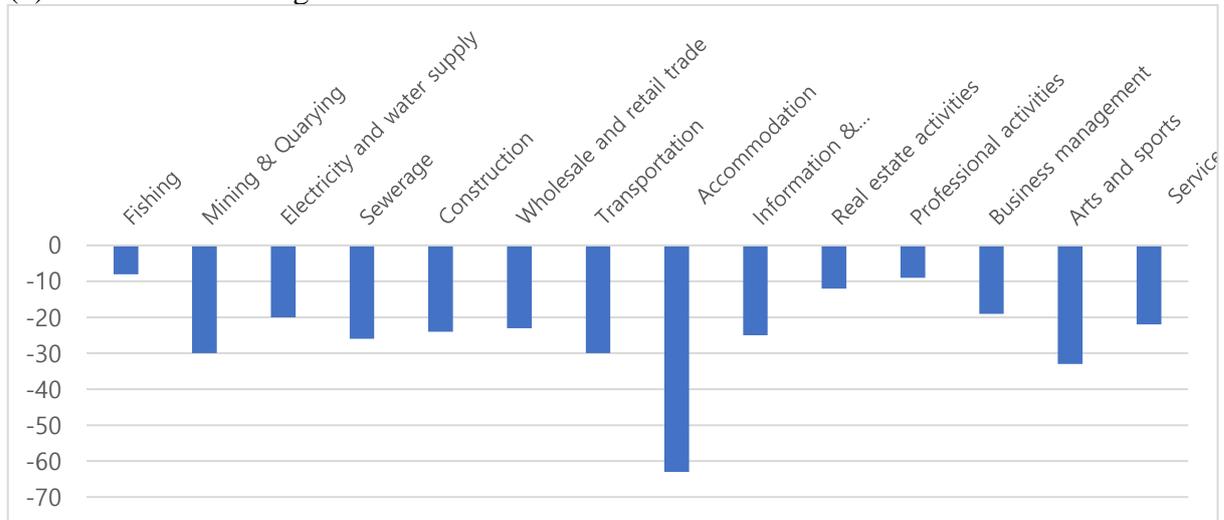
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January-May recorded \$10.7 billion, a significant decrease from \$25.0 billion of 2118 and \$18.6 billion of 2119.

## (a) Manufacturing



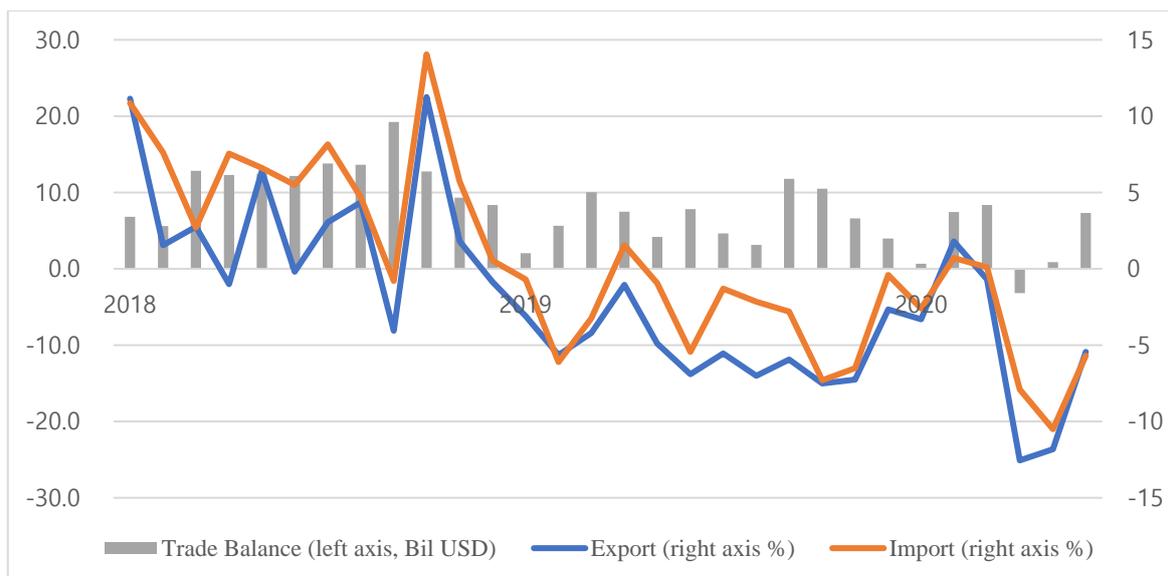
## (b) Non-manufacturing



Note: the negative value means that the actual economy is worse than their one-month ahead forecast. Vice versa.

Source: Korea Statistics, KOSIS data base <http://kosis.kr/eng/>

**Figure 9: Cumulative Value of Difference of Actual Value – Forecast Value of BSI by Sectors**



Source: Korea Customs Service, trade data base of Korea, <https://unipass.customs.go.kr/ets/>

**Figure 10: External Trade of Korea**

### The Pandemic Crisis and Monetary Policy

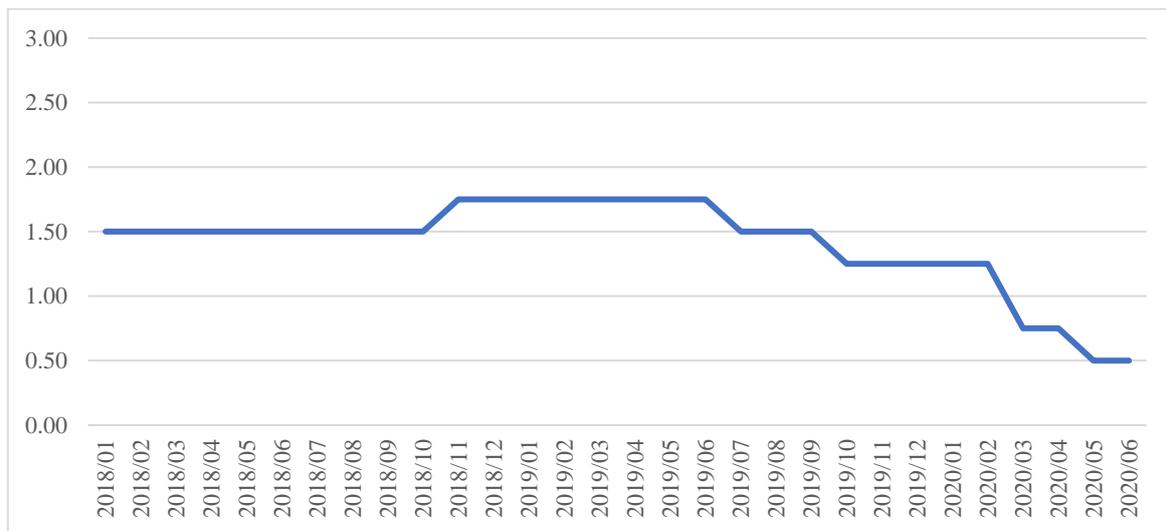
The Bank of Korea, a central bank of Korea, has been very active to reduce the pandemic crisis shock on Korean economy. As Korea's stock price fell and the exchange rate rose in March, the Bank of Korea in charge of monetary policy responded immediately. The policy instruments adopted by the Bank of Korea at this time were largely classified as following three ones such as (1) interest cut, (2) expansion of credit supply and (3) rise of foreign exchange supply. First, the Bank of Korea cut the Bank of Korea Base Rate by 0.5%p from 1.25% to 0.75% from March 17 and another 0.25%p to 0.5 from May 28 and remained unchanged until the end of June. As shown in Figure 11, it was the lowest interest rate since the Bank of Korea began to implement a monetary policy by way of managing the Bank of Korea Base Rate in 1998<sup>5</sup>.



<sup>5</sup> The Bank of Korea Base Rate is the reference policy rate applied in transactions between the Bank of Korea and financial institutions, such as repurchase agreements (RPs) and the Bank's liquidity adjustment deposits and loans. It is called the Base Rate for short. The Bank of Korea began to use the Bank of Korea Base Rate as a major monetary policy instrument in 1998 when it adopted the inflation targeting system.



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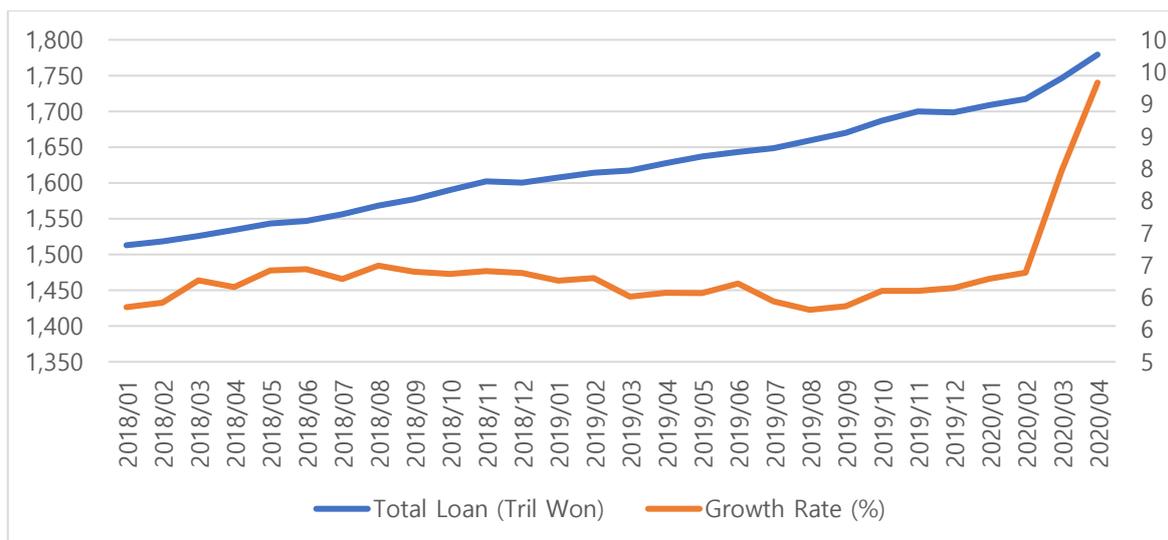


Source: BOK Statistics website, [ecos.bok.or.kr](http://ecos.bok.or.kr)

**Figure 11: Bank of Korea Base Rate**

Second, the Bank of Korea expanded liquidity supply to the commercial banks in various ways. The Bank of Korea increased the ceiling on the Bank Intermediated Lending Support Facility from 25 trillion won to 30 trillion won on February 27 and to 30 trillion won to 35 trillion won on May 15. It intended to support extra financial resource for the trade finance, SME loan stabilization program, and local SME support program. It aimed to extend financial assistance to small business owners and to small or medium-sized enterprises (SMEs) affected by COVID-19. Also, on March 12 and April 10, the Bank of Korea decided to broaden the eligible collateral for banks loans from the Bank of Korea and eligible securities for the open market operation, respectively.<sup>6</sup> The extension of the scope of eligible collaterals helped commercial bank to be able to access the financial resources from the Bank of Korea, if necessary. The expansion of securities for open market operation aimed to induce smooth provision of credit to the real sector if financial unrest deepens by supporting the financial institutions. On March 26, it announced to expand the range of institutions and securities eligible for RP transactions. Thanks to these policy measures, deposit banks were able to increase their loans from 1708.7 trillion won at the end of January to 1799.3 trillion won at the end of April, as shown in Figure 12, eventually reducing the financial burden on the industry.

<sup>6</sup> As a result, many new bonds in addition to the existing government bonds such as monetary stabilization bonds and government-guaranteed bonds, debentures issued by the Korea Development Bank, the Industrial Bank of Korea and the Export-Import Bank of Korea, as well as MBSs issued by the Korea Housing Finance Corporation, could be recognized as eligible collateral for lending facilities when the commercial bank got loans from the Bank of Korea.



Source: BOK Statistics website, ecos.bok.or.kr

**Figure 12: Outstanding Loans from Commercial Bank**

Third, the Bank of Korea succeeded in reaching a US60 billion dollars value of currency swap agreement with the Federal Reserve Board of the United States of America in March 19. It was very meaningful because just before this agreement, the foreign exchange market had substantially depreciated and reached to the highest point.<sup>7</sup> The news of currency swap agreement with FRB was very effective to stabilize the foreign exchange rate. Within a week after its announcement, the foreign exchange rate went back to the pre-crisis level. The Bank of Korea's prompt decision-making and policy implementation is considered to very successful to have stabilized the Korean foreign exchange market.

### The Pandemic Crisis and Fiscal Policy

The Korean government proposed comprehensive and systematic measures to reduce the impact of the pandemic crisis from the early days of outbreak. The Ministry of Strategy and Finance, which oversees economic policy in Korea, held the first Ministerial Meeting to prepare for the pandemic crisis on the 27<sup>th</sup> of January, just the three days after when the first positively tested Korean case was reported on the 24<sup>th</sup> of February. Eight ministers and other major government official who oversaw the economic policy attended it.<sup>8</sup> These meetings were held 11 times more until March 8, announcing many countermeasures against the pandemic crisis. It was renamed and extended to the Crisis Management Meeting and Meeting of the Central Economic Policy Headquarters later. The Crisis Management Meeting was held five times more and Meeting of the Central Economic Policy Headquarters was done eight times more. In addition, the president also held the five emergency cabinet meetings from March 19 to April 22. All these numerous meetings and events help to find the right direction of government

<sup>7</sup> The Bank of Korea announced its currency swap agreement with FRB on the 19<sup>th</sup> of March and subsequently, on March 31st, it carried out a \$12 billion foreign currency transaction by the first competitive bidding method, using the currency swap funds with the US Fed.

<sup>8</sup> They included the ministers of Ministry of Government Administration and Home Affairs, the Ministry of Education, Culture and Energy, the Ministry of Agriculture and Food, the Ministry of Industry, the Ministry of Land, the Ministry of Land, Transport and Maritime Affairs, the Ministry of Land, Transport and Maritime Affairs, the Minister of Food and Drug Affairs. The chief of Economic Affairs of the president office and the directors of the Korea development Institute, and the International Financial Center are invited. It was the largest meetings of ministers except a cabinet meeting organized by the prime minister or the president.



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policy and its scale.

From early days of the pandemic crisis, Korean government recognized the importance of the fiscal expenditure and prepared for the supplementary budget. As a result, the government was able to submit the supplementary budgets for three times to the National Assembly on March 4, April 16 and June 3.

The three supplementary budgets were designed to serve the different purpose. The first supplementary budget is proposed to finance the new expenditure of 11.7 trillion won mainly used to minimize the impact of the Covid-19 on the economy. For example, it covered the medical cost for the Covid-19 testing or healthcare expenditure for the patient. 7.6 trillion won of the second supplementary budget is proposed solely to finance the emergency relief payment to the people. It was distributed to the people by the guidance. Finally, 35.3 trillion won of the third supplementary budget is suggested to reduce the damage of the pandemic crisis and to prepare for the post-corona era of the economic crisis. The total increases in the government expenditure by three supplementary budgets amounted to 59.26 trillion won, making Korea's budget deficit of 2020 and its ratio over GDP rise from 30.5 trillion won to 76.4 trillion won and from -1.5% to -4.0%, respectively. As a result, national debt of Korea will also increase from 805.2 trillion won to 840.2 trillion won and its ratio over GDP will do by 5.7%p from 39.8% to 45.5% as in Table 1.

The first supplementary budget aimed to finance 'the Public Welfare and Financial Stability Package Program to accommodate the Covid-19' announced on February 28. It took care of the cost to operate the appropriate quarantine system and to provide the adequate medical equipment and instrument such as the facial mask. It also enabled to carry out large scale Covid-19 tests on the people or to isolate and to cure positively tested persons properly. In addition, it aimed to help certain group of people and companies who economically suffered from the pandemic crisis including small and medium-sized enterprises. It was also supposed to assist to operate an emergency regional economic support system of Daegu in which Covid-19 had rapidly spread.

The second supplementary budget was used only for the emergency relief payment to the citizen. In early April, Korean government decided to give every citizen emergency relief money up to one million won for four-member family to assist their economic activities as in Table 2. In principle, it was designed to help the small business of retail or travel related sector by raising their sales. The relief money can be used mainly through the credit card, check card, local gift certificate or local prepaid card. Cash delivery was limited only to a special group of people receiving basic pension, and disability assistance.<sup>9</sup>

**Table 1: Supplementary Budget of 2020**

(Trillion Won)

	2019 Original Budget	2020 Budget				Change (D-A)
		Original (A)	Supplementary (B)	Supplementary (C)	Supplementary (D)	
Total Revenues (y-o-y, %)	476.1 (-6.5)	481.8 (-1.2)	481.6 (-1.2)	482.2 (-1.3)	470.7 (-1.1)	-

<sup>9</sup> The number of people of this group is estimated to be approximately 2.7 million.

Total Expenditures (y-o-y, %)	469.6 (-9.5)	512.3 (-9.1)	523.1 (-11.4)	531.3 (-13.1)	547.1 (-16.5)	34.8
Consolidated Fiscal Balance (% to GDP)	6.5 (-0.3%p)	-30.5 (-1.5%)	-41.5 (-2.1%)	-48.9 (-2.5%)	-76.4 (-4.0%)	-45.9 (-2.5%p)
Consolidated Fiscal Balance without Funds (% to GDP)	-37.6 (-1.9)	-71.5 (-3.5)	-82.0 (-4.2)	-89.4 (-4.5)	-112.2 (-5.8)	-40.7 (-2.3%p)
Government Debt (% to GDP)	740.8 (-37.1)	805.2 (-39.8)	815.5 (-41.2)	819 (-41.4)	840.2 (-43.7)	45.0 (3.9%p)
Increase in Government Debt	32.6	64.4	74.7	78.2	99.4	-

Source: Press Release.

**Table 2: Amount Given to the Individual Household by Household Emergency Relief Program**

	(Unit: Korean won)			
Number of Members of Each Household	1	2	3	Above 4
Amounts	400,000	600,000	800,000	1,000,000

Source: Press Release,

Third, the third supplementary budget announced on June 3 was different from the previous two supplementary ones in some ways. Its size of 35.3 trillion won was far bigger than those of two previous supplementary ones of 11.7 trillion won and 7.6 trillion won. In addition, it included the restructuring cost to prepare for a post Covid-19 era as well as the expenditures to overcome the pandemic crisis. It aimed to prevent the decline in the growth rate caused by the pandemic crisis or to promote the newly promising business such as a digital and mobile industry in a post Covid-19 era.<sup>10</sup>

### **The Pandemic Crisis and Korean economy**

The pandemic crisis made a very big shock to Korean economy during the first half of 2020. The above sections provide a very comprehensive explanation on it. This section may summarize them as follows. First, the Korean financial market lost its stability as a large-scale Covid-19 positively tested cases occurred in Daegu on late February. However, it soon became stabilized as the number of newly cases substantially decreased. When the number of positively tested cases in Europe and America increased, and consequently, the instability of international financial markets such as New York and London rose, the Korean financial markets showed a very strong signs of synchronization. As a result, it may be said that the instability of Korean financial market was mainly caused by the external factor rather than domestic ones. Particularly Korea's stock price index moved in line with S&P500 of New York Stock Exchange.

Second, the size of the impact of the pandemic crisis on the Korean stock market is like that of the Global Financial Crisis. When we examined the movements of stock price index of Korea after the two crises of the pandemic crisis and global financial crisis, they look quite similar. However, recovering speed of stock price of the pandemic crisis was far faster than that of Global Financial Crisis.

Third, while Korea's Won/Dollar exchange rate depreciated very sharply in mid-March due to rise of the anxiety in the international financial market, it soon entered into a stable phase after announcement of \$60 billion currency swap agreement between the Bank of Korea and the US Federal Reserve Board.

<sup>10</sup> Korean government called it as the Korean version of the New Deal.



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The rate of depreciation of the Korean won during the pandemic Crisis did not reach that of the Global Financial Crisis. During the pandemic crisis period, the exchange rate depreciated only up to 10% and soon it recovered to the pre-crisis level. On the contrary, it did up to 33% during the Global Financial Crisis and recovered at a very slow rate.

Fourth, Korea's macro-economy shrank sharply from February 2020 when many cases of positively tested of Covid-19 were reported. The movement of industrial production index tells that the speed and depth of contraction of economy of the pandemic crisis looked quite similar with that of Global Financial Crisis.

Fifth, the pandemic crisis hit the service industry more than the manufacturing industry. when comparing movement of the industrial production of the Global Financial Crisis of 2008-09, the East Asian financial crisis of 1997-98 with the recent one, the manufacturing sector received a similar sized shock as that of the East Asian financial crisis but the smaller one than that of the Global Financial Crisis. However, the service industry got more severe shock during the pandemic crisis than those of previous crises.

Sixth, some service sectors such as (1) arts, sports and leisure-related service industry, (2) lodging and restaurant business, (3) associations and groups, repair and other personal service had the most difficulty in their business during this pandemic crisis. Particularly, the productions of arts and sports sector fell by 50.3% cumulatively for the four months after outbreak. The leisure and lodging and restaurant businesses also did by 32 percent cumulatively for three months.

Seventh, Korean business sectors received a very large scale of unexpected shock in early days of Crisis of February and March and they were able to recognize them from April. In addition, it turned out that the manufacturing sector received bigger unexpected shock than the non-manufacturing sector did. The automobiles, medical precision equipment, clothing, and electrical equipment sectors of manufacturing industry and accommodations, arts and sports, and leisure sectors of non-manufacturing industry had to take big unexpected shock than other sectors did.

Eighth, the pandemic crisis reduced external trade of Korea. Both exports and imports declined quite substantially from April to June 2020.

Meanwhile, the central bank and the government of Korea have been very aggressive to minimize the impact of the pandemic crisis. The Bank of Korea cut interest rates to the lowest level in history and raised the liquidity supply to the market. It also succeeded in making bilateral swap agreement with Federal Reserve Board and eventually in stabilizing the Won/Dollar exchange market. Korean government announced several policy measures to reduce the negative shock on the economy. Many emergency cabinet meetings and ministers meetings were organized, and three supplementary budgets were submitted into National Assembly during the first half of 2020. For the first time ever, emergency disaster relief funds were also distributed to every citizen across the nation. And finally, the stimulus policy was designed to prepare for the Post Covid-19 era.

### **3. Evaluation and Critique on Korea's Economic Performance and Policy**

The above analysis clearly showed that the pandemic crisis made a very large negative impact on the Korean economy. The stock price plunged, and foreign exchange rate rapidly depreciated. The industrial production index fell substantially after the outbreak. Despite of all movement of these indicators, Korea is regarded to have a relatively less negative impact from the pandemic crisis and its damage are controllable. The Korean currency regained its pre-crisis value just after the two weeks of instability and KOPSI rose to the pre-crisis level after three months of recovery. It is more obvious if comparing the major economic indicators of the pandemic crisis and previous financial crisis of Global Financial Crisis. Several reasons explain why Korean economy showed such a good performance.

First, Korean government was very successful to control the spread of Covid-19. It was well- equipped with good preventive and treatment medical system for the infectious disease such as the COVID-19. At mid-February, when the number of positively tested cases increased very rapidly among members of a special religious group in a city called Daegu, people worried its expansion to the whole country. However, the well-designed national healthcare system succeeded in keeping it within the city and prevented its expansion. As a result, Korea can be protected from a national disaster. For this reason, Korea did not have to conduct an extreme measure such as a national lock-down. It is widely known that Korea's experience in MERS (Middle East Respiratory Syndrome) of 2105 helped it prepare well for the similar typed disease like Covid-19.<sup>11</sup>

Second, Korean financial institutions and markets were very sound before the crisis and consequently, it prevented the turmoil of the stock market and foreign exchange market from expanding to the overall financial crisis. When the pandemic crisis occurred, stock prices and exchange rates fluctuated very much. However, this instability failed to deteriorate the asset and liability of commercial banks and other major financial institutions. As shown in Table 3, the non-performing loans ratio of commercial banks was less than 1% by end of 2019 and loan provisions ratio remained above 100% at the same time. As a result, the commercial banks were financial very sound before the pandemic crisis. Furthermore, it did not change much in March even one month after the pandemic crisis occurred.

Several reasons may explain why Korean commercial banks were not so vulnerable to the external shocks. It is mainly from Korea's unique experience of East Asian Financial Crisis in 1997-98 and Global Financial Crisis in 2008-09. Korea was one of the most damaged countries of East Asian Financial Crisis. It spent several years to overcome the crisis and restructured the sound and efficient financial and economic system. The newly organized financial supervisory system of 1998 also helped Korean commercial banks to prepare for the crisis thereafter.

**Table 3: Non-performing Loans Ratio of Commercial Banks**

(Unit: %)

Indicators	2017	2018	2019	March, 2020
Non-performing Loans Ratio	1.19	0.97	0.77	0.78
Loan Loss Provisions Ratio	93.7	104.2	112.1	110.6

Source: Financial Supervisory Service, Website

Third, the Bank of Korea were also well-prepared for the turmoil of the foreign exchange market. When the pandemic crisis occurred in January 2020, the Bank of Korea accumulated as large as \$4,096.5 billion of foreign exchange reserves. As seen in Figure 13, it was the largest amounts of foreign exchange reserve in the history of Korea, equivalent to 20.0 times and 1.67 times bigger than that of at the end of 1997 currency crisis and that at the end of August 2008 of the Global Financial Crisis. As a result, it did not have much problem to supply a large amount of foreign currency in the foreign exchange market.

Fourth, very quick and effective policy measures were announced and implemented by the Bank of Korea and the government. For example, the Bank of Korea cut the interest rates by 0.5%p to stabilize the financial market unrest on March 17 and sequentially announced the agreement of \$60 billion valued of currency swap agreement with the Federal Reserve Bank on March 19. These are very unprecedentedly fast movements for the Bank of Korea to take. In addition, the Emergency Cabinet Meeting for Covid-19 with the President was held five times from March 18, and the Ministerial Meeting with the Minister

<sup>11</sup> A 68-year-old man who had visited Bahrain via Saudi Arabia, etc. arrived at Korea infected with of MERS on May 19, 2015. With ill treatment and ignorance on it, 186 people get infected and 39 people died. It was regarded as one of the worst cases of infectious disease in modern history of Korea. Afterwards, Korean government made a new law on prevention on infectious disease and accordingly set up a systematic manual for it. It made more emphasize the importance of the public health.

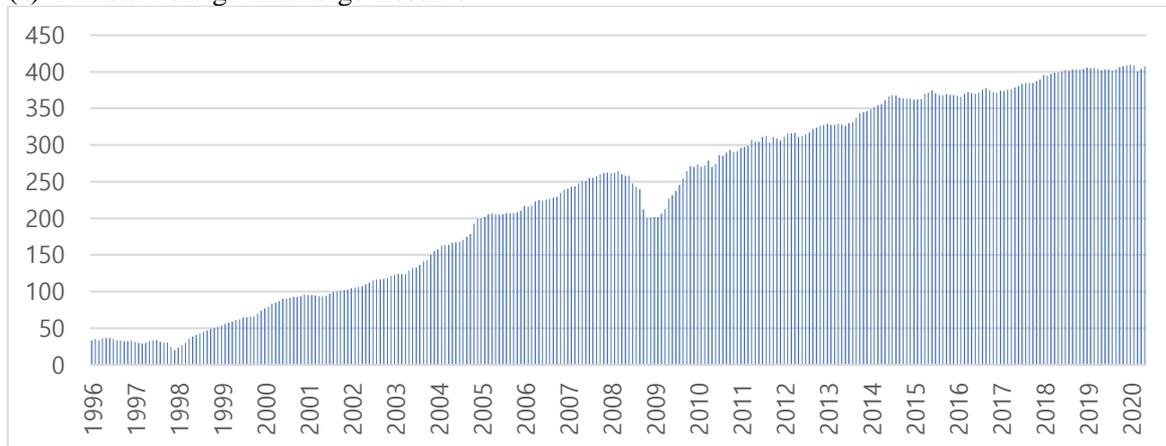


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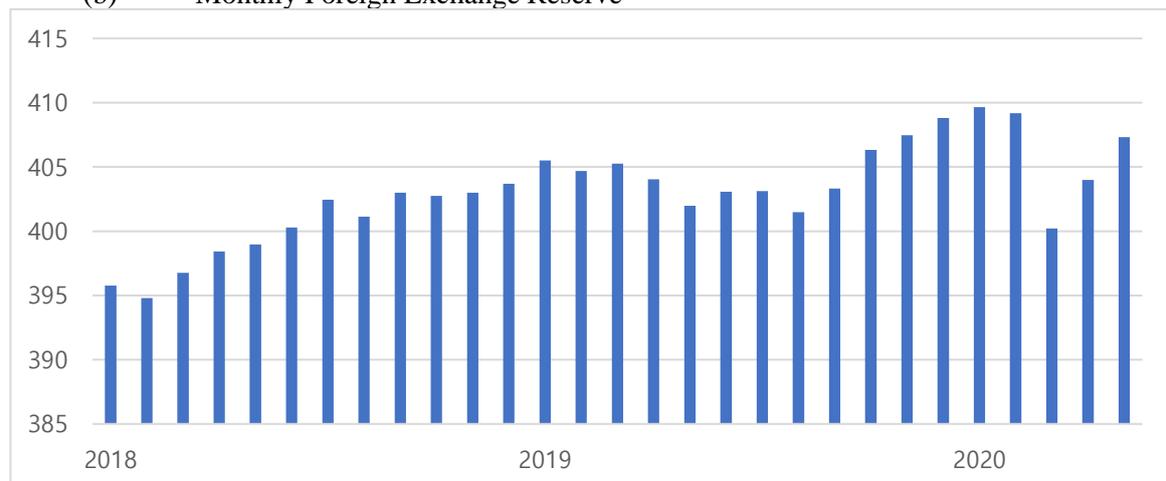
of Economy has been held by 23 times since February 27. The supplementary budgets are proposed three time into the national assembly. Compare with those of 2008-09 Global Financial Crisis or that of 2015 MERS crisis, it was a very quick and a very systematic approach.

In particular, the emergency relief payment to the citizen implied in the second supplementary budget was very effectively enforced. This relief payment aimed to help local merchants and small business owners that directly suffered from this pandemic crisis. To take this purpose, its way of payment and place to spend was designed very carefully. For example, the relief money was only used by designated electronic payment methods such as the credit debit cards or prepaid cards and its usage on the place and area were also limited. For example, it could be used only in the local stores and restaurants in the area where the residents lived. The large department store or restaurants with national chain was excluded from its usage. Furthermore, it was very quickly implemented. On April 30, the government approved the budget and spent some day to finish the required administrative preparation. Finally, it began to distribute them from May 11. On May 11-June 7, a total of 21.11 million households or 99.5% of all eligible households received 13,59.08 billion won of relief payment from the government. It made an immediate boost in consumption. This quite achieve was attributed to the national medical insurance system and the development of fintech services in Korea.

### (a) Annual Foreign Exchange Reserve



### (b) Monthly Foreign Exchange Reserve



Source: BOK Statistics website, [ecos.bok.or.kr](http://ecos.bok.or.kr)

**Figure 13: Foreign Exchange Reserve**

Fifth, the Korean government and the Bank of Korea have been very flexible either to design their policies or to change them. At the early stage of the pandemic Crisis, the Korean government considered

the pandemic crisis as a temporary event and design the related policies accordingly. As a result, its main policy objectives were to prevent Covid-19 from expanding across the country or to take care of the medical cost for the patients. The Bank of Korea also focused on providing appropriate liquidity to the financial market or reducing the financial burden on firms and households affected by pandemic crisis. As a result, major amount of money in the first two supplementary budgets were allocated into such sectors. However, since May, the Korean government has recognized that Covid-19 Crisis might continue for a considerable period in the future and then it began to switch its policy direction to minimize its long-term economic damage or to improve the structure of the industry. In other words, Korean government expected that business conditions and consumer behaviors after the pandemic crisis would be different from those before it. Then it decided to help Korean business sector to prepare for these new economic environments.

Of course, there are some critiques on Korean economic policy and the performance of Korean economy. Not all government policies were done properly. First, many people argued that the sizes of the fiscal deficit and the government debt rose too fast by too much for this period. The three supplementary budgets widened Korea' budget deficit by 45.9 trillion won and raised the government debt/GDP ratio from 39.8% to 43.7%, making less room for the future fiscal policy. If this pandemic crisis continues for more than a year, Korean government may not be able to implement any new stimulus packages. One of the important reasons why the Korean economy had been successfully able to overcome the 1997-98 crisis and the 2008-09 crisis was the fiscal soundness of the government. It enabled Korean government to implement the large-scale stimulus policy when needed. Even afterwards, Korean government had been very cautious to raise the budget deficit and finally successfully maintained its national debts less than 40 percent of GDP for the more than past two decades.

Second, the expansionary policy might bring a real estate or financial bubble in near future. The recent record low interest rate and fiscal expansion may accelerate the speculation on the asset markets. Indeed, as the end of June 2020, stock prices index and foreign exchange have already reached to the level of pre-crisis. Furthermore, real estate prices rose so fast that government had to announce some preventive measures for speculation. As a result, there are some worries that the recent expansionary policy may extend a divergence between the financial economy and the real economy and eventually bring another asset bubble in the future.

Third, the efficiency of government budget may fall soon. The largest shares of supplementary budgets were allocated to help the specific sectors such as local retail stores, food suppliers and restaurants. As a result, it did not contribute to the improvement of the productivity of economy but to assist many non-sustainable companies to survive. In addition, a large amount of funds was used in a very short period. As a result, it is highly likely that the misallocation and financial fraud may occur.

#### **4. CONCLUSION**

This paper examines the impact of the Covid-19 pandemic crisis on the Korean economy and the government and central bank's policies for the first half of 2020. For this purpose, it investigated the movement of several financial indicators and production indices. Finally, it tried to evaluate its economic performance by comparing those of 2008-09 Global Financial Crisis. It did not include the analysis on the healthcare and medical policy related to the pandemic crisis. Rather it only focuses on the economic aspects of the pandemic crisis.

The following conclusions were made from the above analysis. First, Korea was one of the first countries where the Covid-19 pandemic crisis occurred keeping allowing foreigners from all around the world to come. It was because Korea's geopolitical location and its widely open economic structure. Korea was one of the countries adjacent to China, the originated place of Covid-19. Furthermore, Korea had a very close political and economic relationship with China for years. In addition, Korea lead its economic growth by adopting market opening economic system for a very long time. As a result, Korean government was unable to announce the prohibition of entry from foreign countries where many positively tested cases of Covid-19 were reported. For example, when the number of cases surged very



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rapidly in Europe and the United States, Korea did not ban its entrant from these countries. It only had to minimize the damage by establishing a very good prevention system in response to the pandemic crisis.

Second, the first shock on the financial market occurred in early March, when the number of positively tested cases rose very rapidly among a small religious group in a specific region in Korea. The stock price fell, and Korean currency lost its value. However, the well-designed disease preventive system successfully reduced the number of positively tested cases and finally stabilized the financial market soon. Stock price and foreign exchange rate went back to the pre-crisis level soon. However, the turmoil in international financial market raised the instability of Korean financial market immediately. Particularly, the KOSPI moved very closely with S&P500 of New York Stock Exchange. Therefore, it can be said that the financial market instability in Korea was caused not by the rise of the number of positively tested cases in Korea but by the turmoil of the international financial market made by the rise in western countries.

Third, the size of the impact of the pandemic crisis on the Korean economy was less than those of other countries of western Europe or US. However, it was quite like that of the Global Financial Crisis. The pandemic crisis failed to bring the bankruptcy of any financial institutions in Korea. It is because Korean financial institutions maintained their soundness and efficiency before the crisis and the Bank of Korea and Korean government prepared well for the crisis. The non-performing loans ratio of commercial was very low, and the foreign exchange reserve of the Bank of Korea was very large.

Fourth, it was also observed that these impacts of the pandemic crisis were quite different across the sectors and industries in Korea. Particularly, some sectors such as accommodations, arts, sports and leisure-related service industry and lodging and restaurant business had been severely damaged financially.

Fifth, the Bank of Korea and the Korean government applied several policy instruments to minimize the negative influence from the turmoil of the international financial market and finally achieved some of its purpose. For example, the signing of a currency swap between the Bank of Korea and the US Federal Reserve Board immediately helped stabilize Korea's foreign exchange market. In addition, the immediate implementation of the emergency relief payment successfully reduced the business burden on the most severely damaged group of economic agents such as the local stores and restaurants from the pandemic crisis

During May and June 2020, approximately 22.7 to 44.4 cases of daily new Covid-19 positively tested are reported on average and the Korean government is still emphasizing social distancing policy, keeping business open and in-work activities. It is far from overcoming the pandemic crisis. Furthermore, major economic indicators for the first half such as GDP or industrial production index are not announced yet. As a result, it may be too early to evaluate the impact of the pandemic crisis on the Korean economy and the performance of government and the central bank' policy on it now.

Despite all these arguments, this paper may be valuable in some senses. As well-known, Korea, neighboring with the Covid-19 originated country of China fell into the 999 earlier than any other major industrial countries of Europe and America. It is also widely open economy having a very close relationship with major economies around the world. As a result, it is quite surprising that Korea did not experience any drastic measures of lock-down nor massive economic contractions. Instead, it made a very good preventive action on the Covid-19 pandemic Crisis and achieved a relatively safe living conditions for people. Furthermore, it is also quite impressive that Korean economy had a relatively better performance and Korean government and central bank implemented very quick and appropriate policies.

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## THE INFLUENCE OF SOCIO- POLITICAL ON IRAQ ACCOUNTING SYSTEM IN IRAQI BANKS

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### Abstract

**Purpose:** The objective of research display the influence of social and political factors on the uniform accounting system for the transition to the International Financial Reporting Standards.

**Research Methodology:** This research will interview key personnel involved both in the decision to transition and its possible implications (Sale et al, 2002). The transcripts of these interviews will be coded for the main themes relating to opportunities and challenges of effect the Socio-political factors and transitioning from the UAS in Iraq to IFRSs, we used a qualitative phenomenological approach. In addition, NVIVO software program will be used to arrange and sort the data and coded themes

**Results:** A clear result is seen on the influence upon accounting procedures and disclosures in Iraq we found old accounting systems cannot provide this relevant information, there for its important transition to IAS/IFRS in Iraqi Banks. Also the socio -political factors will effect on accounting system according to interviewers' answers.

**Limitations:** The limitations of the main study are that it is not possible to conduct interviews with important figures in the government, as well as that the body that works to coordinate standards with the accounting environment in Iraq is not specified.

**Contribution:** The study provides a contribution to researchers as well as specialists in applying international accounting standards in Iraq in order to advance the accounting reality in Iraqi banks.

**Keywords:** Socio- Political, unified accounting system(UAS) , IFRS.

### 1. INTRODUCTION

It is known that accounting system represents the reflections of socio- political environment and economics system in any country ( Nobes& Robert ,2016 ). Therefore, the Iraqi economy has been characterised since the inception of the Iraqi State in 1921 by being a centralized system as most of the State resources were subjected to the central government's control. We can determine two different periods that affected on an Iraqi accounting system across the recent history of Iraq that started 1921. The first period in relation to the British colonies that described as a significant example of accounting system growth, especially, independence auditing, development of accounting education, establishment of a stock market and Iraqi accounting and auditing union. This period continued after the British colonies left Iraq, and 1970 considers the end of the period. The second period started after 1970s, which described as standardised accounting system age, had many events in different aspects that affected on Iraqi socio-political environment. Firstly, nationalisations of oil which can be drawn upon as a pivotal event among these events, in that respect, the highly increasing of oil prices after 1973 wars.

In political aspect, the domination of Arab Baath socialist party on political situations in Iraq led to essential transformation in accounting and auditing structure. The government gave unlimited authority to the Board of Supreme Audit to draw the financing and auditing polices, in addition to his traditional role that is controlling of public finances. Since 1976s the Iraqi Board of Supreme Audit issued Iraqi standardised accounting system. This research aims to present and discuss the cultural and political factors that affect the accounting environment through a unified accounting system approved



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in Iraq and the transition to the International Financial Reporting Standards IFRS that is important to attract private capital and investments to Iraq and contributes to the support of the economy. The Iraqi legislature sought to realize the goals of broader through issued the standardised accounting system. For instance, to help central government for collecting information and data required for planning, implementation and monitoring. There for, the accounting environment had changed due to the power role which gave to the board of supreme audit. Consequently, the roles of the accounting and auditing union, accounting professors in the universities and others accounting departments in public or private companies became deficient or weak. The above influence of standardised accounting procedures and disclosure in Iraq leads to major problems that do not afford the flexibility required for accountants and auditors to deal with a new situation after the 2003 war, the unified accounting system in Iraq is considered the basis of work accounting for many years, so the transition to the International Financial Reporting Standards IFRS is not easy, especially since there are cultural, social and political factors, the transition to IFRS in Iraq is still suffering from this transition at the present time.

**What is the influence of social and political factors on the uniform accounting system in Iraqi banks .**

### 2. LITERATURE REVIEW HYPOTHESIS DEVELOPMENT

Jaafar and McLeay (2007) examine whether accounting differences between companies are mainly influenced by a company's country, size, sector or number of stock exchange listings. They find that all these factors have some effect, but that country is far more important than all the other factors. Jaafar and McLeay's research is set in the context of national accounting systems (Nobes & Robert, 2016). Since the 1970, the international accounting standards (IAS) and international financial reporting standards (IFRS) have become necessary for developing the economies for all countries. The adoption of these standards by public and private firms around the world is one of the most significant financial accounting and reporting occurrences in accounting history. Up to 2007, over 100 countries have either implemented IAS and IFRS or at least taken steps to adopt these standards in the future (Baker and Barbu, 2013). Other studies like (Bahaa & Rasheed al et, 2020) found there's a political and legal impacted on accounting quality in Iraqi private banks, when (Hovart & Korošec, 2015) explained role of accounting in a society as an activity of independent and unbiased measurement and presentation of real economic phenomena with the extended view on accounting as a socio-political practice and ideology, also there's many factors that effect on accounting systems according to international financial reporting standards (IFRS) by economic environment, the political environment, the legal and tax environment, the professional environment, the business environment, the cultural factors, the level of education, and the international factors including past colonization, as influential factors that affect the financial reporting standards and practices (Alia & Branson, 2010). The economical expansion to new markets propelled the design of a common international accounting system so there are factors affecting on the IFRS adopting like Legal System, Taxation system, Provider of Finance and the culture. Also we are analyzing in depth the Nobe's, (1998) model (Tasos, Stergios, 2019). The accounting system of each country is affected by different influential factors. As there is a very small possibility that influential factors of two countries will be equal, they can also be considered as generators of national specificities. The level of differences of each influential factor between countries implicates the intensity of accounting differences at the international level. The actuality of international accounting harmonization issues imposes the need of consideration and detailed examination of factors that influence the development and accounting system in one country. Considering the different classification of factors mentioned above, as well as factors which are extracted or specially emphasised in literature, some of them are described. The study by (Černe, 2009) explained the relationships between the influences of cultural factors on the accounting environment have been examined in the literature from many different perspectives. In regards to study of cultural relativism in international accounting. In relation to culture and corporate finance declared his allegiance of significations, social understanding, values, believes and considered socio-political factors as a component part of culture to be often an expression of norms; values and customs within a defined social grouping that reflect typical behavioural characteristics. Indeed, humankind is



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itself a social phenomenon he also believes that culture is formulating and is created by those elements (social institutions, social phenomena and humankind) that have been reflected on accounting authority, disclosures and procedures. So the hypothesis is :

H<sub>a</sub>: There is on effect of Socio Factors on accounting system in Iraqi banks.

A primary focus has been on the diverse of international practices, that is casual relationships have been sought.(perera,1995).Many Studies found that accounting practices were different within countries. However, the national differences were noted, diverseness tabulated, classed, and choices were generally attributed to the political and economic consequences of accounting policies. Professional accounting business firms produced numerous publications cataloguing the different accounting practices to be applied by clients to abide overseas requirements. There were considerable grounds that national differences existed (Askary, 2001).

### **Socio-political Factors**

There are many studies that showed the cause of the impact of various factors on the accounting systems in the countries, can also have an effective role in the accounting environment, the political system, economic and legal sources of funding and others, have an impact on the accounting profession, which represents education, culture and level of economic development and the situation. The legal system, tax system, the source of finance and accounting profession. However, we should specify that the contribution of each factor is the development of the accounting system can vary from one country to another. (Elita, 2009) social science, accounting for the environment in which they operate is affected, but at the same time, is one of the factors that affect the environment itself. This is the reality that refers to the interdependence between the accounting and environment. A accounting system in any countries affected by the country through a variety of historical, social and economic - cultural and institutional, and other non - represent factors, so it is highly unlikely factors affecting to be exactly the same thing. Therefore, it can be logically assumed that the factors affecting the development of the accounting system in the country are also generators of special national qualities, and thus, the generators of the differences between the accounting systems at the international level. After all, just as countries have different histories and order or even the value of the political and legal systems, and therefore accounting systems have more or less different development model operating (Ćerne, 2009)

#### **a) Social Factor**

The accounting authority is considering a good example to the reflect of social effective on the accounting system. With the development of an accounting authority structure is those entities primarily concerned and provision of a framework and standards, values and principles applicable to accounting within a country. The influence of behaviour and decision processes in corporation has a strong relationship with accounting authority structure. The authority structures as a sub component of social organization accordingly in this investigation will be analyse (Smith, 2001). Riahi-Belkaoui (1990) identified the eight components of the business: Culture environment as language, religion, values and attitudes, education, technology, politics, law and social organisation. Authority structures lie within the social organisation component of the culture environment. According to Hofsted (1980, 1983) accounting authority structures exert their influence as experienced organizational structures in the area of accountancy. However, rather than accounting authority structure, there are many kinds of accounting authorities and finance structures in countries such as securities commissions, stock exchange and central banks, accounting and auditing unions and various trade organisations. This research will focus on entities responsible for accounting frameworks, policies and accounting standards.

#### **b) Political Factor**

Many surveys in the literatures which emphasis on the political factors influencing accounting articulated policies. Therefore. Political influence is one of the institutional factors are affecting the level of financial disclosure institutions. , Said the quality of financial (FRQ reports) are identified among other reasons, through the interaction between incentives and forces the relative expressed by a

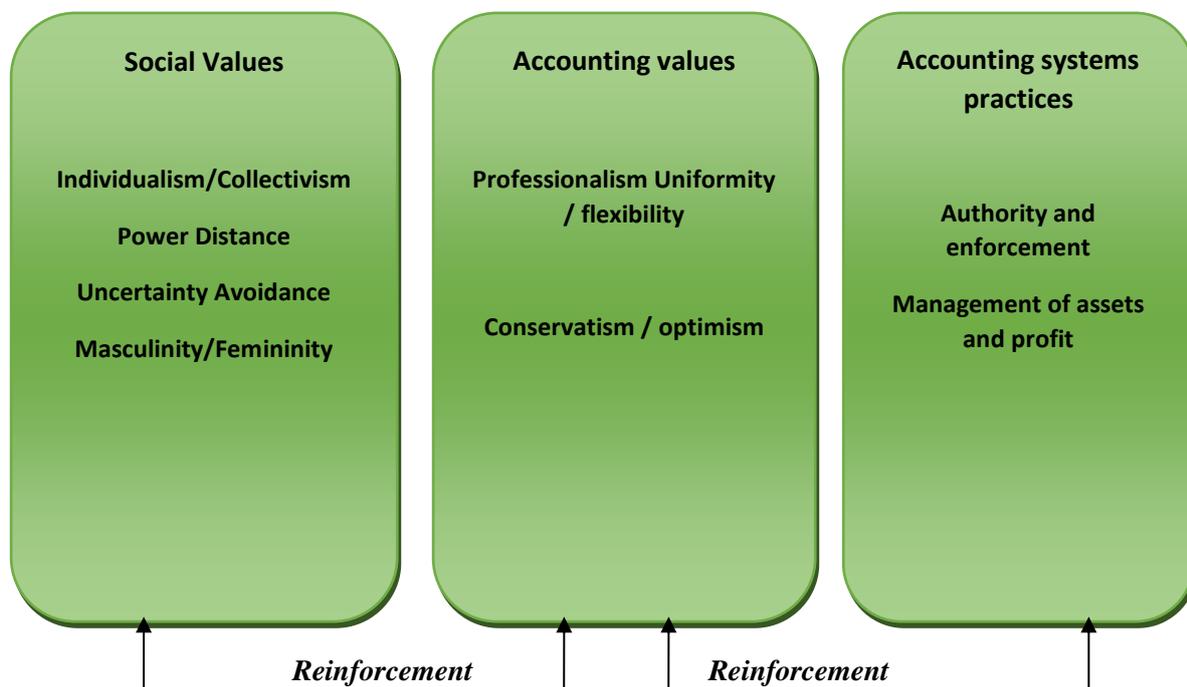
particular user group, from the authors of the organizations account include local key participants involved in the financial reports of government authors (bureaucrats) and citizens (voters) , political officials, legislative bodies and local government officials and private groups such interests, however, depends on the level of political awareness and composition of the relevant departments. (Mustapha al et,2018).

The different measures used by previous studies to activate the variable political influence as shown above, particularly among government departments, suggest that contextual differences and judicial considerations interact to determine the results of relevant studies. However, historical cost financial statements are still the standard in most countries, in a highly inflationary economy, such as Brazil's; a system has had to be established for monetary restatement.. In some countries, accounting is regulated by statute law and policy, while in others the accounting profession plays a greater role; the U.S., the Netherlands, and the U.K. are in the later category , Accounting in France, Japan, and Germany is more government-controlled in some less developed countries; disclosure of financial information to outsiders is irrelevant because they have no equity markets or public shareholders

### c) Different Factors

Different studies explained financial reporting practice has developed in each country based on the role of its capital market and the level of economic development (Saudagran ,2004). While (Nobes,2016) found that the Legal and tax system, and the regulatory enforcement regime, social-political, and the economic factor, the degree of inflation the status of accounting profession and the accounting quality of education, among others. So here we have to ask are there major reasons for differences in accounting practices? There is no obvious way to explain the reasons for differences in accounting system among countries according to Wallace and Gernon who criticised these conclusions .

**Figure 1: GRAYS Accounting Dimension, Measurement and Disclosure**



Source: Radebaugh & Gray, *International Accounting and Multinational Enterprises*,2006.

### The Influence of the Socio-Political Environment on the Iraqi accounting system:

It is known that the accounting procedures and policies are affected by the countries' political and economic systems, and the Iraqi economy has been characterised since the inception of the Iraqi State in 1921 by being a centralized system as such of the State resources were subjected to the central



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government's control, and these policies have widely overshadowed the accounting systems adopted at the State of Iraq. Iraq is one of Arab countries; this area consists of Egypt, Iraq, Libya, Saudi Arabia, Kuwait, United Arab Emirates and Lebanon. This sample involved Gulf countries, North Africa and the Mead terrain. These areas of great cultural diversity have a big difference in natural resource. For example, from among the richest like Kuwait and poorest like Egypt. The effects of colonisation on individuals within this group are likely to have been diverse excluding Saudi Arabia was never colonized, directly Iraq, Egypt and Kuwait were influenced or colonized less by the British (Nabil and Roger, 1995). The accounting authority structure of Iraq has been had entities that are responsible for the accounting and auditing policies and procedures.

- a) **Board of Supreme Audit (BSA):** this organisation represents in Iraq the high level accounting authorities those have always been keen to preserve the public funds, overseeing spending, providing support and activating the controlling and accounting history in Iraq. The Board of Supreme Audit is responsible for controlling all Iraqi public and private organisations to adapt the standardised accounting system. Iraqi private and public companies are subjected to the standardised accounting system, which is: "the group of processes and procedures for collecting information and data required for planning, implementation and monitoring and "it" includes recordkeeping according to accounting manual and accounting practice procedures adopted in preparing consolidated financial statement" (Standardised Accounting System, 1987). The accounting system designers think that "it" helps in the following advantages:
- I. Facilitation of data and information collection, standardisation and provision at a level more comprehensive than the company or the economic unit.
  - II. Facilitation and rapidity of issuing instructions and adjustments
  - III. Focusing the standardized accounting system on achieving the national plan objectives without concentrating on profit or loss for the company or the economic unit.
  - IV. Accounting system gives importance to some expenditure elements and shows them separately, e.g., salaries and wages and raw materials.

These features were not, in fact, free of obvious disadvantages touched by the system designers, including the following:

- 1) The compliance of companies and economic units to accounting treatments and procedures which may not be consistent with the country's circumstances.
  - 2) The compliance of companies with different activities to prepare consolidated financial statements at the end of the fiscal year.
  - 3) Implementation of standardised accounting system on the simplified standard costs, whereby only two deviations are identified: one concerns production's actual costs deviation from the planned costs, and the other concerns actual sales deviation from the planned sales.
- b) **Local Accounting Standards Committee:** this committee was established by Board of Supreme Audit. It has eight members three are university professors, three members are from the accounting and auditing private professions and two are from Board of supreme Audit. The chief of this committee is the president of the Board of supreme Audit. The Iraqi legislative authorities have recently been directed towards trying to intercommunicate with international accounting organizations, as they have begun to establish a committee for developing local accounting standards, and the committee has already developed 14 standards and considered them to be local criteria. (Board of Supreme Audit)

The reality of the accounting situation in Iraq shows a very large impact of the standardised accounting system on the accounting profession and the greatest impact, according to the researcher's viewpoint, is represented in freezing the accounting thought and lacking the flexibility required to keep pace with various political and socio-economic variables. With regard to the Local Accounting Standards Council, its composition and standards development method are inconsistent with the

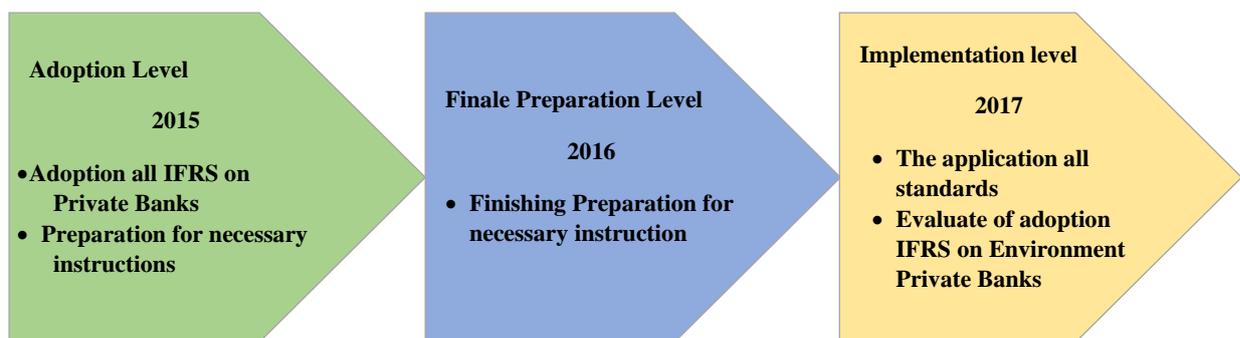
nature of the work required to be achieved, as the 14 criteria (rules) prepared by the Council so represent verbatim translation of the international accounting standards that these procedures and applications will not help Iraqi accounting entities to deal with the current situation in transformation from centralised system to decentralised system and market economy and foreign investments (Board of Supreme Audit).

- c) **Iraqi Accounting and Auditing Union:** this organisation represents the Iraqi people who work in accounting and auditing sector. The role of this union is organising the accounting and auditing private sector. This union follows the procedures and instructions that are issued from Board of Supreme Audit [www.ifac.org/aboutmember-body/iraq](http://www.ifac.org/aboutmember-body/iraq).

## 6. International Financial Reporting standards Adoption in Iraq

Recently, the government of Iraq had obligated the Iraqi private banks (IPB) to proceed with the IFRS as the accounting standards to improve the quality of financial reporting. The reason for doing that is accounting standards are changing and disclosing more financial information to the banks may increase the comparability and transparency of the financial information. (Bahaa&Rasheed.,2020 )The following exhibits the roadmap of IFRS adoption in Iraq:

**Figure 2: Roadmap of IFRS conversancy in Iraq**



Prepared by the researchers according to Central Bank of Iraq (CBI) Instructions 2015

On April 1, 2004, the companies in Iraq were urged to implement a more open market economy. The CPA and Iraqi Governing Council seven issued a modified version of the Companies Law of 1997 for all foreign and domestic investors. The law stated the permission for international investors to own 100% of the businesses in any sector besides the natural resources sector. Subsequently, in November 2009, the Law had changed and it had allowed the international investors to invest in the oil sector. The CPA led by the US had issued the Interim Law on the Securities Markets In April 2004. Therefore, there are a few matters that need to be highlighted to acknowledge the Iraqi Governing Council’s aspiration to significantly alter the country’s economic system and the hope to recover the capital markets in Iraq.

### 3. RESEARCH METHODOLOGY

This research will interview key personnel involved both in the decision to transition and its possible implications (Sale et al, 2002). The transcripts of these interviews will be coded for the main themes relating to opportunities and challenges of effect the Socio-political factors and transitioning from the UAS in Iraq to IFRSs, we used a qualitative phenomenological approach. In addition, NVIVO software program will be used to arrange and sort the data and coded themes.

This section analyses the primary data collected by in-depth semi-structured interviews. Each interview was based on open-ended questions related to Iraq’s current accounting system with key personnel, particularly personnel who are or would be involved in the decision for Iraq’s transition



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from its UAS to IFRSs. The open-ended questions particularly focused on the Banks Sector. Interview transcripts were coded for themes using a phenomenological approach the data was analysed through content analysis which for this study is informed by the perspectives of institutional theory.

Data was sorted and classified using NVIVO (Altheide, 1996; Bryman & Bell, 2011). As the interviews were mainly conducted in Arabic, the interview questions and transcripts have been reviewed by an independent translator, the focus was on interviewing the top management in the organizations responsible for the structures and policies of the accounting system and c in Iraq. To understand the need for transition and its implications on the accounting industry, interviews were also conducted with personnel from organisations likely to lobby the accounting authorities in relation to accounting standards, particularly standards that impact on the Banks Sector. Interviewees came from the following categories:

- a) Board of Supreme Audit (BSA), and Members of the Iraqi Local Accounting Standards Committee;
- b) Professionals accountants and auditors, and accounting faculty in Iraqi Universities;
- c) Representatives of the World Bank and IMF;
- d) Big 4 accounting firms.
- e) Employees' in banks managers in departments' such as (finance, credit, compliance, audit.....)

We used in this research unstructured interviews, the key research question was supplemented by further research questions which are used for reporting the interview outcomes in the following sections. While the interviews were focused on the above research questions, to gather in-depth information, ten interview questions were used. Thirty interviews were conducted over a period of six months from February 2019 - July 2020. The interviews were undertaken personally and conducted by the researcher. Twenty of the 30 interviews were recorded. Five interviewees provided written answers, and the researcher took notes for five interviews as they did not give permission for recording. The researcher made notes both during the interview and immediately after each interview.

Each interview lasted from a minimum of 30 minutes to a maximum of 90 minutes, with a mean of approximately 44 minutes, The Respondents in this study were managers in Banks, consultants, CFO, CAO, and associate professors and professors, who have been involved both in the decision to transition and its possible implications for Iraq's accounting system to move to IFRSs by adopting, harmonizing or convergence and what Socio-political factors that effect on UAS. The transcripts of these interviews were coded for the main themes relating to opportunities and challenges for Iraq to transition to IFRSs and socio-political factors affect on UAS.

### **Benefits and Opportunities of Adopting IFRSs**

The first question asked of the interviewees related to the opportunities that a change to IFRSs might bring to Iraq. This is a key aspect of this study. Two respondents (R6 and R7) did not see any benefits for Iraq in adopting IFRS. For the remaining respondents comments were divided into three aspects relating to development of the economy, development of financial policy and accounting system, and development of peoples' lives and their personal skills. Because banks contributes to 10% of GDP which in turn impact other economy, six interviewees thought adoption of IFRSs might increase foreign direct investment (FDI) and might also develop Iraqi companies and Baghdad's stock market.

Related to the postulated growth in the economy, interviewees thought that growth in the economy should increase living standards, working opportunities with international companies, and the development of personnel skills. Further, accountants and auditors in Iraq would be able to develop their career and be able to work in any country by using international accounting and auditing standards. Most respondents from the BSA and Iraqi banks think that the adoption of IFRSs will help the BSA to understand IOC's financial statements and solve issues between them. They though that



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adopting IFRSs could lead to globalizing Iraq, with better foreign investment and knowledge sharing in accounting. By developing an international accounting system in Iraq, BSA's staff and other accountants and auditors will be exposed to and gain experiences in understanding IFRSs. This would lead to providing sufficient disclosure in financial statements for all users which in turn could help to attract foreign investments. Furthermore, it will help the tax office, because under Iraq's tax law, taxpayers are required to attach approved financial statements to their tax statement. Currently the IOCs and other foreign companies need to change their reported financial results according to UAS for tax purposes.

Adopting IFRSs will attract foreign investments according to the majority of respondents and would also help the IOCs currently operating in Iraq. Interviewees believed that the current IOCs and new investors would lead to the further development of Iraq's economy because the financial statements will have the required disclosure and provide sufficient information for investors in taking investment decisions. In addition, some respondents have strong support for the IOCs' presence in Iraq as it has led to economic growth of 9%. This growth without IFRSs provides evidence that there is no strong relationship between the accounting system and economic growth. In addition, this example shows how global institutions use terms such as global uniform financial statements to persuade emerging and developing economies to adopt IFRSs so that developed countries can more easily dominate their resources and markets. A minority of respondents were of the view that adopting IFRSs would enable comparisons of financial reports and bench marking with other countries.

Interviewees were divided in their opinions whether adoption of IFRSs would benefit Iraq's vital banks sector. Some respondents (R1, R2, R3, R5, R9, R11, R14, R17, R22, R23, R25, R28, and R29) opine that adopting the IFRSs will develop Iraqi bank sector and make it a part of the global market, which, in turn, will have a positive impact on all economy sectors in Iraq. The alternative view (R10, R12, R16, R4, R13, and R15) is that the procedures and managerial practices adopted by qualified non-Iraqi staff within IOCs, will serve as a motivator for the Iraqi staff to develop themselves. Three respondents from BSA were of the view that adopting IFRSs may improve cost accounting systems.

Despite a questionable understanding of what adoption of IFRSs will bring, almost all respondents displayed an earnest desire to adopt any measure that may develop Iraq's economy in the people's interest. They reasoned that the Iraqi people would get indirect benefits because of the development in an accounting system which would help to attract foreign investments. Increases in foreign investments would in turn develop the economy and improve standard of living for the people. The lack of understanding of what adoption means for a country is reflected in the view of a respondent who stated that Iraqi people by becoming familiar with international accounting and auditing standards will develop their international skills by communicating with foreign companies. All respondents agreed that organizations such as the WB and the IMF need enough data/information to help them not only in their decisions about either loans and grants already given as well further offerings of loans and advances, but also in understanding the country's economic and financial situation. Additionally, all agreed that it is important for Iraq to provide sufficient information to these organizations because many foreign investors build their decisions for investments on the reports of these international funding organisations. Adopting IFRSs would enhance their ability to gather information from Iraqi sources. For the Big 4 accounting firms, the overall comments can be summarised as *new clients and a big market*. Despite their negative comments about the UAS and their inability to understand it, interviewees from the Big 4 accounting firms highlighted that the Big 4 accounting firms are currently assisting IOCs to prepare financial reports according to UAS's chart of accounts and rules for tax purposes.

### **UAS is not Effected by Socio-political factors in banks Sector.**

Respondents agreed that the Socio-political factors on UAS is not robust enough as an accounting system to account for Banks sector. However, the reasons given differ. The reasons can be summarised into four perspectives. Each is discussed in turn.



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### **UAS is an Old System without Regular Updates**

The UAS was developed in 1980s and since 1982 there has been no update to the UAS other than in 2011, when the BSA issued a report about an updated system. As pointed out by R19 (Manager in BSA) and R20 (public inspector in Ministry of Culture and a previous member of Iraqi Local Standards Committee) *the updates in 2011 were in the tables of depreciation ratios, which were separately annexed with UAS.*

There has been no real update to UAS accounting system which means that important environmental variables and globalization have been ignored. According to R30 (Representative of World Bank),

*the local accounting standards are not in compliance with internationally recognized accounting standards like IFRSs. There a need for a gap analysis between the local accounting standards and IFRS but there would be many gaps between the two standards if analysed.*

### **UAS is designed to serve a Central Economy Concept**

That the UAS was designed to serve the Iraqi central government that had a socialistic view so that it was not designed for a market economy was supported by eight interviewees. Therefore, these objectives of UAS to focus on only government requirements means that UAS according to R8 (Dean of Iraqi CPA), does not *have enough flexibility to be in line with current environmental changes in Iraq's government and economy.* While 22 interviewees implied that the financial statements prepared according to UAS are not flexible enough for the move to a market economy, this may be a temporary situation as *current efforts are being undertaken to develop the UAS* (R6, and R7). This confirms that a move to international accounting standards is not happening soon.

### **Other Accounting Issues**

Stressing the lack of compliance with international accounting standards, the interviewee from the World Bank saw a *need for gap analysis between the local accounting standards and IFRS but there would be many gaps between the two sets of standards that would have to be investigated.* Such an analysis needs to reconcile the goals for accounting. The reconciliation of the goals for accounting is another issue hampering the decision of whether to adopt international accounting standards. Currently the UAS focuses on macroeconomic goals so that it directs the basis of the accounting recognition and measurement to achieve those macroeconomic goals, thereby making disclosure less transparent. For example, there is no need to disclose the accounting policies used by companies so that in-depth comparisons of companies in the same industry are problematic. This may have to change because as one interviewee pointed out, Iraq has become a member of the Extractive Industries Transparency Initiative (EITI).

### **Training of Iraqi Accountants**

Any major change in the accounting system will entail huge costs in terms of training and development and it must be done by an institution with authority to conduct the training. The majority of the respondents agreed that training should include the BSA as it has the authority and budget, and is responsible for accounting policies and procedures in Iraq and for academic accountants in universities and professionals in accounting and auditing. Most agreed that the training of the Iraqi staff in IFRSs will be a big project needing funds, time and a strategic plan. This would have to be done by a special committee. The Board of Supreme Audit respondents indicated that any training of accountants and auditors within Iraqi ministries and offices legally would have to be done through the Board of Supreme Audit (BSA). Other respondents agreed; four respondents from the Big 4 accounting firms and a few academics, because this organization has a big budget and authority from the government. On another hand, other academics are of the view that this project on training should be conducted only with the assistance of Big 4 as they have the required experience and qualified



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staff, who can deal with such a project. That the interviewees from the Big 4 thought that the Board of Supreme Audit should financially support the training supports comments in the literature that the Big 4 make money from training accounting staff in countries that adopt international accounting standards. According to two respondents (R30 and R13), the training should be done by Ministry of Finance as it works with World Bank and IMF, and it has continuing projects with World Bank for adopting IFRSs in Iraq's banking sectors. Most interviewees did not speculate on how long the training would take if Iraq decided to adopt IFRSs. However, one interviewee (R25) thought that such a project would take a long time, perhaps two to four years.

### Challenges of Adopting IFRSs

The biggest challenge to adoption of IFRSs is resistance to change. The UAS has operated in Iraq for more than 30 years. Any change from the UAS to IFRSs would be difficult not just for the BSA's staff, and also for other Iraqi staff in public and private sectors for many purpose, and hence may face resistance from staff. This was confirmed by a partner in one of the Big 4 (R1) operating in Iraq. The partner has had close working relationships with Iraq's accounting and financial sectors in the last few years: Current users such as BSA, Iraqi local companies, accountants and auditors union, tax authorities, central bank of Iraq resist the change as they are not familiar with IFRSs. There is a fear of job loss due to lack of knowledge of international accounting standards. This fear is accompanied by the fear generated by the wars and sanctions of the last three decades that such a transition would entail the need for electronic media which are foreign to most of the Iraq's people who are disadvantaged in this area. Most respondents agreed that there will be resistance to change particularly from existing BSA staff to any change from UAS to IFRSs. They thought this resistance arises from many factors such as unfamiliarity with IFRSs, belief that the UAS is comprehensive system, and obstacles generated by language and communication skills.

Reflecting the view of the Big 4 partner, staffs of the BSA, the key player in the accounting system of Iraq, are against the change. Some respondents such as R6 and R7 were completely against this change because they believe that the UAS is based on international accounting standards so that there are no big issues that require changing. If there was a need, the system could be updated. However, other BSA respondents (R11, R18, R19, and R21) and professionals (R14, R26, and R27) stated that while they do not agree with changing from UAS to IFRSs, they acknowledge that the UAS needs updating or adopting relevant IFRSs.

### Training

Resistance to change turns to concerns about training if Iraq decides to adopt IFRSs. Wars and UN sanctions closed Iraq so there was no change or update in the accounting system and in universities' curriculum. This lack of change has generated concerns about the training that will have to be undertaken with current accountants and auditors. As noted above, responsibility for the training is not clear. Most academics in the accounting departments including the Deans (University of Baghdad, Al Mustansiriya University, Postgraduate Institution of Accounting and Finance, Babel University and Iraqi CPA) and some accounting and auditing department's managers in Banks >

### Routine, Organizational Structure, Laws and Legislation

Iraq still has sectors under control of the government (R21, R25) and it is not clear whether the government wants to go along the path of a market economy, even though foreign investments and the private sectors are growing slowly. On the other hand, the long-term impact of the previous regime on Iraqi's economy is felt by respondents from IOCs and Big 4 accounting firms. Other Iraqi respondents believe that the old laws, old routines and old legislation are still working, although current procedures through government offices take a long time, delays that will act as obstacles for both the



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private sectors and foreign investments: *Sometimes decisions are not promptly taken and legislatures and executive bodies work slowly* (R15).

### Other Challenges

In addition, there is the challenge of using an electronic system in financial accounting and cost accounting, especially for accountants and auditors in this industry currently in Iraq. The World Bank's representative highlighted many of the problems already noted. These include the training of personnel in Iraq, the availability of qualified people to properly apply IFRSs standards if adopted, and their ability to cope with internationally recognized accounting standards (like IFRS) continuous change and establishing an enabling accounting and auditing environment. The academics who were interviewed suggested that enhancing accounting and auditing curricula at universities' level in accordance with international best practices was the way to go to prepare qualified professionals in the future. Respondents (R1, R3, and R9) focused on some challenges to the Iraqi economy, one of which was the transition period. They were of the view that it would take between one to three years or more. This long period together with the ambiguity between central and market economy will be a real challenge in the change process. A challenge related to this is an issue raised by R13 that the public do not have a good understanding of the uses of an accounting system and how to read financial statements because there were no opportunities for people to invest because all big companies were public companies controlled by the central government with very little participation of the private sector.

### Should Iraq Change from the UAS to IFRSs

Out of the 30 respondents, 22 (73%) agreed that there was a need to change from Iraq's UAS to the IFRSs. They stated several compelling aspects to support their opinion. The first is the move to a market economy; the UAS was not designed to serve such a market. Another aspect is the absence of accounting for banks in the UAS, although banks accounts for over 10% of Iraq's GDP. The interviewees appear to be ignorant of the controversy that has followed the formation of a standard for this industry because they believe there is a need to adopt IFRSs to provide "proper" accounting in the extractive industry. The third aspect is that disclosure in UAS does not provide sufficient data and information to help users in their investment decisions.

Only eight respondents are of the opinion that Iraq not changes its UAS to the IFRSs. Not surprisingly that of the eight who are not in favour of the move from UAS to IFRS five are members of the BAS, two are academics and one is an independent professional. Their main argument is that the UAS has been working well for over 30 years without problems and it has been an effective way to control public funds. They also state that the UAS is designed for all Iraqi sectors which creates uniformity across all Iraqi companies in all sectors and so provides comparative information to help the government and other users in their decisions. In addition, the process of change from a well-established 30 year old system to a new accounting system will not be easy. There are many factors to be considered. Currently, Iraq is in a transition period with urgent need to make changes in its laws and legislation, universities and curriculum, accounting and auditing practices and its entire political system. Further, the cost of training of accounting and audit staff personnel and the cost of changing manual records, computer systems, and software will have to be carefully considered. As an academic commented: *Iraq does not have qualified academics and professionals for adopting all the IFRSs at once, so we would need to start with extractive industries firstly.* However, all respondents are disagree with the change from local accounting system (UAS) to IFRS they acknowledged that UAS needs to be updated especially in relation to the extractive industry.



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### 4. RESULTS AND DISCUSSIONS

Most of the respondents agreed that the current accounting system used in Iraq(UAS) is not suitable for accounting for banks in Iraq. Many reasons were proffered such as the age of the accounting system and political factors, its focus on serving central government, and the lack of a specific standard for the banks. The respondents also agreed that the BSA can force UAS on Banks but disagreed about the reasons. The case of banks in Iraq reflects the perspective of mimetic isomorphism. These banks have not experienced staff and advanced technology which highlights the poor state of technology in Iraq and the Iraqi's lack of experience in both technology and international matters and hence implicitly persuades Iraq to modify its economic, legal and financial legislation.

The trauma of the past decade has left Iraq with uncertainty so that the majority of the respondents see modelling their accounting system (seen as old, inappropriate) on what appears to be a successful accounting system (IFRSs).

Differing views over any training created by a change to IFRSs also can be viewed through the lens of institutional theory. While all interviewees thought that the BSA should be responsible for training there was no consensus on who should conduct this training. Some thought the training should be the responsibility of the Big 4 accounting firms, while the Big 4 representatives thought they should not be involved. This is normative isomorphism whereby the Iraqis wish to adopt the structures and procedures (training) advocated by the Big 4 (Moll, Burns, et al., 2006) After a short period in Iraq, these Big4 firms are in a position to impose their style on the accounting and auditing environment in Iraq. As Scott (1995) commented; the stabilising impact of the norms of the Big 4 are internalised, creating looking forward of values that have gained general acceptance by the interviewees. The opportunities and benefits of IFRSs adopting in Iraq from the respondents' point of view can be analysed from three perspectives: the development of the economy perspective; the financial policy and accounting system perspective; and the development of the life and skills of the Iraqi people.

The respondents' answers reflect mimetic isomorphism as they are of the view that the Iraqi banks will be best developed by imitating the same organizational structure and procedures used in the International banks. The difficult matter for Iraq is the move to a market economy. The move is generated by pressure from external institutions which have been coercively pressuring the government of Iraq since 2003 via agreements such as those with the institutions ( UN, IMF and World Bank).

### 5. CONCLUSION

According to responses that obtained, it becomes clear that the socio-political factors directly affect on the unified accounting system in Iraq, and also, the transition to the International Financial Reporting Standards (IFRS) is affected by the factors that were mentioned previously, and this indicates that the accounting system in Iraq needs continuous development. Then will be reflected on the economic system and attract foreign investment, Iraq may need a transfer to the capital market in order to solve the economic problems it has faced for a long time. Foreign investments require high-quality information from the accounting system to operate within any country's old accounting systems, and this relevant information cannot be provided. Therefore, the Iraqi accounting system needs to find a way to solve this problem and provide sufficient information to attract multinational companies to invest in Iraq. This research has concluded that the unified accounting system in Iraq needs a lot of work to develop and such kind of work needs support from the state. And the bodies responsible for regulating the accounting profession (unions, the Iraqi Office of Financial Supervision). The transition to international accounting standards in Iraq faces many difficulties, especially in Iraqi banks, which were required to be applied in 2015 by the Central Bank of Iraq.



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## LIMITATION AND STUDY FORWARD

The study was not able to determine the duration of the influence of other non-political and social factors on the unified accounting system after the transition to international accounting standards. Therefore, researchers have to behave towards implementing standards in Iraqi banks and know what other factors affect the transition to international accounting standards.

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## DETERMINING THE RELATIONSHIP BETWEEN INFORMATION TECHNOLOGY AND LEADERSHIP STYLE

(Case Study: Navy Research Institute of Bandar Anzali in Northern of Iran)

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### Abstract

The environment of future organizations are complicating day by day. Organizations are going to be multi cultural and global or at least in less develop countries; they are beyond of one city or province. The leaders of these organizations have to work with cultured diversity effectively any they use different styles of leadership. One of the concepts about this subject is conditional leadership which was brought up by "Paul Hersy" and "Kent Blanchard". This model Forms based of employees, readiness and suggests that one of the important factors of readiness is knowledge; and for this reason today's organizations value knowledge and educated employees. The basis of knowledge is information and the way of recording, storing, reminding, and receiving of information is changing which is named information Technology. In this research based on conditional leadership theory, it is expected to see a relationship between Information Technology and leadership style in organizations; therefore this relationship has been investigated in Navy Research Institute of Bandar Anzali. The output of questionnaires was analyzed by use of SAS software then the hypotheses were examined by use of correlation test and by 90 percent assurance it seems that there is a meaningful relationship between information technology and leadership styles and in research Institutions like Bandar Anzali Navy research institutions, this relation is important in strategic information level.

**Keywords:** *Leadership Style, Participative style, Despotic Style, Information Technology.*

### 1. INTRODUCTION

Nowadays, Information Technology has been transformed by use of computers, Satellites, telephone, Television and it has influenced on scientific, industrial, cultural and social life of people. This technology affects a families too in a way that in purchasing decisions, they collect their required information through communication devices, for example in first step they call to their friends or relatives and ask question about quality, price.

Technology is one of the most important subjects in Management and it is considered as one of the strategic management tools. In Strategic Management, recognition the external and internal environment of organization is necessary – without correct and enough information, the organization will be plunged in a sea of uncertainty and thing which can decrease uncertainty is information.

Information lacking or plentitude could makes decision making simple or complicated, in a way that information is much, decision making is followed by confusion and in information lacking making process is not complete and it won't be scientific [3].



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Decision making in organizations could be personal or by group, and this matter depends to the scope of delegation in organization. The delegation scope to lower categories is called decision making model or leadership style which can be influenced by applied information or information technology in organization [12].

### 2. PROBLEM DEFINITION AND RESEARCH BASIC QUESTION

The ever-increasing wave of information technology use in recent years has involve Iran too; so searching in this matter is essential and the effects of information technology in organizations should be analyzed. And the thing which is important is that the expected results and use of this technology would become effective and the cost of its performance and application could be justified [6]. These are the reasons of doing this research and the basic question which will be answered in this research is that:

"What is the relation between the level of information technology and applied leadership style?"

### 3. SUBJECT IMPORTANCE

The concepts of organization and future have been discussed very much and consultants and proficient analyzed, examined and rebuilt the organization from different dimensions. It seems that in all of these discussions, author's consensuses at least on 2 points [8]:

- 1- Organization should change in order to survive in a changeable environment.
- 2- Future is a distinct period of time which the changes should be emerged on that.

Organization is a group of people who are working in a specialized structure for a distinctive objective and they make capital turn over possible for financial suppliers. The point which should be added to this definition is the role of empathies and feelings in handling organizations and people [7].

Managing on workers is something more than job definition or salary determination. Manager should consider the behavior of people and recognize the subtle points of their actions and behaviors. "Human is the axis of the management styles which were brought up by strategists and authors. Human Resource Managers have to use computerized software services and with correct management on productivity, education and planning; produce new statistics and diagrams which will cause humanistic work place.

### 4. RESEARCH HYPOTHESES

1. There is a meaningful relationship between Information Technology and Participated leadership style.
2. The is a meaningful relationship between Despotism Leadership style and information technology.

### 5. RESEARCH OBJECTIVES

The original objective of this research is to show a relationship between leadership style of an organization and information technology and this important could help manager in applying and using information technology and inform them about the related subjects in organization management and leadership based on multi cultural organizations, therefore three main subjects of this research are as follows:

- 1- Examining the situation of information technology in organizations.
- 2- Examining the varieties of leadership styles in organizations.
- 3- Examining and determining information technology requirements in order to suitable use of



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information.

### 6. RESEARCH TERRITORY

#### A) Subject Territory

The subject territory of this research is information technology and leadership styles in organizations.

#### B) Place Territory

The place territory of this research is Navy research institute of Bandar Anzali. This office is managed by Top managers, middle manager and supervisors. These people are about 45 persons.

The applied information technologies in this institute are:

Financial Reporting System, Salary and Fees System, Industrial Accounting System Warehousing system, computerized designing system, personnel Administrative system, Project control system Intranet, and Internet.

### 7. RESEARCH METHOD

The method which is applied in this research is a combination of field and library research. Library research is mainly used for subject literature and research background, it also used for preparing a suitable framework for this subject. In research literature part, the main focus of research is on the Persian and Latin books and articles and post graduate theses. In the field method of this research, the required data was collected through questionnaire and after analyzing, obtained information was used to accept or reject the research hypotheses.

### 8. WORDS AND EXPRESSIONS DEFINITIONS

The main and key word which is used in this research and their definition is essential are as follows:

#### - Management style

A mixed of qualities, skills and manners which managers use to interact with their employees, in other words management style is stable behavioral models which managers use to work with others [12].

#### - Participative style

It is a collection of work process and operations which participate workers and subordinates in decision making procedure [5].

#### - Despotic style

In this style, leader is the only one who decides and has strict supervision on workers, activities [5].

#### - Information Technology

In this technology, recording, processing, transferring and receiving of information is done faster and better by using computer networks, for away communication systems and microelectronics.

### 9. THEORITICAL BASIS

#### Examining the validity and Reliability of collected data

##### Validity

The validity of questions could be justified based on valid questionnaires in organizational leadership researches [9] and examining the effects of information technology on organization structure [4].

##### Reliability

In order to examine the reliability, runback Alpha method was used and in two of questions



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(management and information technology), the correlation matrix was calculated individually with following formula:

$$a = \frac{N\bar{P}}{1 + \bar{p}(N-1)}$$

In this formula,  $\bar{P}$  is the average of correlation numbers between  $x_i$  and  $x_j$  as  $(i,j=1,2,\dots,N,j \neq i)$  and  $N$  is the number of variables.

### Factorial Analysis

It is a multi-variable method which tries to justify the correlation model in an observable accidental vector distribution  $x=(x_1\dots x_p)$  based on the minimum numbers of unobservable accidental variables called factors.

Although, the concept of Hidden Factors was proposed by Galten in 1888; Formulation and extension of factors analysis have been sourced from Psychology and relates to spearman. He supposed that the correlation of some of intelligence test grades could be produced by unique liner functions [11].

The calculation of hidden factors coefficient could be done by variant methods which two of them "main generators" and "maximum verisimilar" have the most applications. In this research, maximum very similarity was used. The factorial model which is used here for recognizing the common factors is [1]:

If we suppose that  $x$  is an observable accidental vector, then  $E(x) = \mu$  and  $cov(x) = \Sigma$  is a distinctive positive matrix, and we suppose that each  $x$  could be written as a liner mix of  $m$  unobservable variable which  $m < p$ :

$$\begin{aligned} X_1 - \mu_1 &= a_{11}F_1 + a_{12}F_2 + \dots + a_{1m}F_m + \varepsilon_1 \\ X_2 - \mu_2 &= a_{21}F_1 + a_{22}F_2 + \dots + a_{2m}F_m + \varepsilon_2 \\ X_p - \mu_p &= ap_1F_1 + ap_2F_2 + \dots + ap_mF_m + \varepsilon_m \end{aligned}$$

And in the case of this matrix:

$$X - \mu = AF + \varepsilon$$

With Noticing to the hypothesis and above model and using Normal distribution of  $\varepsilon$ , the amounts of matrix coefficients could be calculated by minimizing the following function:

$$\left[ -\frac{1}{2} tr[\varepsilon^{-1} (\sum_{i=1}^n (x_i - \bar{x})(x_i - \bar{x})' + n(\bar{x} - \mu)(\bar{x} - \mu)')] \right]$$

$$L_i = (M, \varepsilon) = (2\pi)^{-np/2} / \varepsilon^{-n/2} e$$

In order to turning the factors, coefficients which they could be interpreted, Varimax method was used to minimize the following matrix:

$$V = \frac{1}{p} \sum_{j=1}^m \left( \sum_{i=1}^p a^4_{ij} - \left( \sum_{i=1}^p a^2_{ij} \right)^2 / p \right)$$

### The relationship among factors

After calculating the points of management factors and using information technology, the relationship among these factors was examined. Examining this relationship has been done by examining



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correlation coefficient.

In this case, with Pearson correlation coefficients and P=0 Test, we want to answer to this question is there any meaningful statistical between leadership styles and using information technology?!

Zero hypothesis substituting hypothesis and are as follows:

$$\begin{aligned} & \text{Substituting} \\ & \left\{ \begin{array}{l} H_0 : P = 0 \\ H_1 : P \neq 0 \end{array} \right. \end{aligned}$$

$$T = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}} \approx t_{(n-2)}$$

$$P - \text{value} = \Pr(|T| > t_{(n-2),\alpha})$$

## 10. ANALYSIS FINDINGS

### Questionnaire Reliability

After filling up the questionnaires by people, the Cronbach Alpha was calculated and you can see the result in Table (1):

**Table 1: Examining the reliability of questions.**

Questions	Cronbach Alpha
Questions related to leadership style	0.763
Questions related to information technology	0.686

As you can see in Table 1, the questions relates to leadership styles have a suitable reliability (more than 70 percent) and the questions relates to information technology have a good reliability too (more than 50 percent); so the collected data has high internal compatibility.

### Statistical Analysis of Findings

#### A) Questions relates to leadership styles

First as you can see in table (2), meaningful test has been done to examine that if is a common factor among questions or not? And it is observed that the P-value is low. It means that the  $H_0$  hypothesis was not accepted or in other words there are common factors among questions. Then in order to find these factors, table (3) was formed and main factors selection was done until reaching to 0.947 in cumulative ratio.

**Table 2: Meaningful testing of existing common factors based on 37 observations relates to leadership Styles questions.**

Test	Freedom Degree	$X^2$	P-Value
$H_0$ : There is not common factor	55	141.0583	Lower than 0.0001
$H_1$ : otherwise			



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**Table 3: Analyzing the factors of leadership styles questions.**

Cumulative ratio	Ratio	Difference	Special amounts
0.763	0.763	6.411228	8.447828
0.947	0.184	0.94847	2.0366
1.0453	0.983	0.212725	1.08813
1.1243	0.791	0.631603	0.875404
1.1463	0.022	0.174878	0.243802
1.1526	0.0062	0.2112	0.68993
1.1392	-0.0134	0.12078	-0.14828
1.1149	-0.0243	0.064076	-0.26906
1.0848	-0.0301	0.12299	-0.333/3
1.0436	-0.0412	0.26501	-0.45612
1	-0.0436		-48262

Now based on table (4) and with noticing to P-value amount, we can see that  $H_0$  hypothesis has not been rejected.

**Table 4: Meaningful testing of enough selected factors for results interpretation.**

Test	Freedom degree	$X^2$	P-value
$H_0$ : Two factors are meaningful	37	28.7787	0.7214
$H_1$ : more factors are needed			

### A) Nomination of leadership styles data factors

The coefficients of questions for each factor has been shown in table (5).

As it is clear from the questions weights, for the first factor. Questions number 7 and 8, have the minimum weights and for the second factor, these questions have the maximum weights; so it was specified that the first factor could be could "Participative leadership style factor" and the second factor could be caused "Despotic leadership style factor".

These names could be caused as communicational behavior style factor and functional behavior style factor too, but because in this research, the theory of "Paul Hersy" and "Kent Blanchard" was used, so the above names preferred.

**Table 5: Coefficients of turning factors relates to leadership styles questions.**

Question	First factor	Second factor
1	0.57033	-0.15897
2	0.41761	-0.10516
3	0.47831	-0.11632
4	0.50607	-0.35456
5	0.27744	-0.63756



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6	0.35291	-0.55711
7	-0.19968	0.36311
8	0.8083	0.92037
9	0.70207	-0.13457
10	0.72527	-0.13799
11	0.76231	-0.42665

### B) Questions Relates to Information Technology

For these questions, like leadership questions, first the existence of common factors among variables was examined and with a low amount of P-value, it is proved that  $H_0$  hypothesis was not true, based on table (7), we can see that with choosing the first and second factors, which their special amounts are more than one, the cumulative ratio is 94 percent. In table (8), the amount of P-Value is high, it means that  $H_0$  hypothesis could not be rejected so these two factors are enough.

**Table 6: Meaningful Testing of existing common factors based on 37 observations.**

Test	Freedom degree	$\chi^2$	P-value
$H_0$ : There are not common factors	36	68.4315	0.0009
$H_1$ : other wise			

**Table 7: Analyzing the questions relates to Information Technology.**

Cumulative Ratio	Ratio	Difference	Special amounts
0.6953	0.6953	2.868039	4.483984
0.9459	0.2506	642355	1.615945
1.0969	0.151	0.576851	0.97359
1.1584	0.615	0.044637	0.396739
1.213	0.546	0.434	0.352108
1.1515	-0.0127	0.232999	-0.08189
1.0807	-0.0488	0.141726	-0.31489
7	-0.0708	0.63539	-0.45662
	-0.0807		-0.52016

**Table 8: Meaningful testing of enough selected factor for results.**

Test	Freedom degree	$\chi^2$	P-value
$H_0$ : Two factors are meaningful	19	17.8851	0.5301
$H_1$ : More factors are needed			

### C) Nomination of Information Technology data factors

The coefficients of questions for each factor are table (9). In first factor, the weight of question number 13 which shows the supportive information of decision making is remarkable so the first factor caused as " Supportive information technology of strategic decisions factor" and in the second factor, question number 16 has the maximum weight which shows the existence of information in operational level, so it could cawed as " information technology in operational decisions level factor".

**Table 9: Coefficients of turning factors relates to in formation Technology questions.**

Question	First factor	Second factor
12	0.55416	0.01643
13	0.78244	0.29374
14	-0.02202	0.37714
15	0.51484	-0.13713
16	0.10031	0.99496
17	0.19966	0.43987
18	0.42994	0.11915
19	0.56454	0.45238
20	0.22806	0.066

## 11. STATISTICAL ANALYSIS OF HYPOTHESES

Hypothesis (1): "There is a meaningful relationship between Information Technology and Participative leadership style"

Zero hypothesis and Substituting hypothesis are as follow:

$$\begin{cases} H_0 : P = 0 \\ H_1 : P \neq 0 \end{cases}$$

**Table 10: Pearson Correlation coefficient of Technology with Participative leadership style.**

**P=0.P-value Test**

	$X_1$	$X_2$	$Y_1$
$X_1$	1	$\frac{0.02485}{0.8926}$	$\frac{0.4748}{0.006}$
$X_2$	$\frac{0.02485}{0.8926}$	1	$\frac{0.07354}{0.6892}$
$Y_1$	$\frac{0.4748}{0.006}$	$\frac{0.07354}{0.6892}$	1

As you can see in table (10), P-value amount in supportive information technology of strategic decisions is so low but in the second factor it in not like that. So the relation of  $X_1$  and  $Y_1$  is remarkable or in the other words in the level of 99 percent, there is a meaningful relationship between participative leadership style and supportive information technology of strategic decisions, however in the operational decisions level, this hypothesis is not true.

Hypothesis (2): "There is a meaningful relationship between Despotie leadership style and information



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Technology".

$H_0$  And  $H_1$  hypotheses are as follows:

$$\begin{cases} H_0 : P = 0 \\ H_1 : P \neq 0 \end{cases}$$

**Table 11: Pearson Correlation coefficient of technology with despotic leadership style.**

*P=0, P-value Test*

	$X_1$	$X_2$	$Y_2$
$X_1$	1	$\frac{0.02485}{0.8926}$	$\frac{-0.42221}{0.0161}$
$X_2$	$\frac{0.02485}{0.8926}$	1	$\frac{-0.01021}{0.9558}$
$Y_2$	$\frac{-0.42221}{0.0161}$	$\frac{-0.01021}{0.9558}$	1

As you can see in Table (11), P-value amount of supportive information technology of strategic decision is so low but in the second factor it is not like that; so it seems that with 95 percent there is a meaningful relationship between despotic leadership style and supportive information technology of strategic decisions. However this hypothesis in the operational decisions level is not true.

## 12. CONCLUSION

### Hypothesis (1):

This hypothesis shows the relationship between information technology and participated leadership style; It seems that applying information technology in an organization is in a same direct with predicated leadership style. It means that more information technology.

### Hypothesis (2):

By testing this hypothesis, it seems that despotic style makes a background for applying less of information technology or in other words information technology can't be used when the leadership style is despotic.

## 13. SUGGESTIONS

In order to apply information technology:

- 1- The culture of applying it should be stretched in organization.
- 2- The results of this applying should be anticipated.
- 3- Related leadership style should be applied.
- 4- Detailed planning should done in applying processes.
- 5- Before any investment, the need of organization to this technology should be examined.
- 6- The need of organization different parts to different levels of technology should be determined.
- 7- Execution obstacles of hardware, software, communication, and information should be removed.



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## DEVELOPING LECTURER OF NON-PUBLIC UNIVERSITIES IN VIETNAM

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### Abstract

**Purpose:** Human resources management mainly affect the development of resource of lecturers in a university, which can be divided into the 8 functions: Recruitment, arrangement and utilization of lecturers, working environment, human resource development policy, remuneration and compensation policy, training and development, school information communication, and school budget. Find out which factors have the greatest impact on the policy of developing non-public university faculty human resources?

**Research Methodology:** The author surveyed faculty and administrators including administrators and management departments of non-public universities. The total number of questionnaires is 390 votes.

**Results:** Among these 8 factors, recruitment has the biggest influence and human resource development policy has the smallest influence on the development of the university's faculty.

**Limitations:** The study only studied 8 groups of factors, besides there are many other groups of factors that affect the development of non-public university faculty.

**Contribution:** Based on the research results, the author has given some recommendations about managing human to promote the development of faculty in private universities.

**Keywords:** *Development of faculty in non-public universities, Human resources management, Vietnam.*

### 1. INTRODUCTION

Over nearly 30 years of building and development, non-public education in Vietnam has had a remarkable development. Initially, there were only 5 non-public universities, so far there are 60 non-public universities, accounting for 25% of the total number of nationwide universities and institutes (now there are 235 universities, institutes and academies nationwide). The number of students and lecturers was very small, by the 2018-2019, the non-public education system had 15,158 lecturers (accounting for 20.8% of the total number of teachers nationwide) and 243,975 students enrolled (accounting for 13.80% of the total number of students nationwide), contributing to the state budget reached 111 billion dong. If the Government has to spend around 25 million VND per student per year in public universities. However, for the 2018-2019, non-public universities have saved about 6,000 billion VND. The above results show that the non-public education system plays a good role in contributing to the training of high quality human resources for the society. In addition to the achievements, the non-public education system still has many problems.

*Firstly*, lecturers who are belonged to the university are very few, and the qualifications of teachers are limited. Most of the teachers who are highly qualified and have a degree are elderly. They just can teach at non-public universities after retiring from public universities.

*Secondly*, it is very difficult to attract young and highly qualified teachers with degrees to be lecturers.

*Thirdly*, the lecturers at non-public universities are not stable. Many young teachers after a period of striving for higher degrees, they apply to transfer to public universities or quit to work there, so in fact, the faculty at non-public universities is only 20% of the requirements.



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How to change the way to manage human resources at non-public universities, which helps to support the development of faculty to adapt for current requirements. That is a question for human resource management.

The article focuses on analyzing in-depth the impact of human resource management on the development of faculty at non-public universities in Vietnam.

### 2. LITERATURE REVIEW

#### *Human resource management affects the development of lecturers*

Human resources management is affecting the development of lecturers at non-public universities include the following main factors:

#### *Policy for developing human resources of lecturers (CSPTNNL)*

The human resources development policy of a university is a system of perspectives and goals on training, using and developing human resources with specific actions which are affirmed and applied to solve problems by the school's leadership in the process of developing lecturers.

The human resources development policy of a university will fundamentally determine the development of faculty at this university [Mikkelsen, A. and Grønhaug, K. (1999),]. According to [Pellert, A. (2007) and Spottl, G. (2013)], HR development policy for faculty in universities includes the selection of development goals, action methods to achieve the goals and supporting policy for developing faculty at universities.

Many studies have shown that in order to develop faculty, firstly, universities need to have a correct and accurate policy on developing human resources (Verloop, N., Driel, JV, & Meijer, P. (2001), Wiske, S. (2001) .; Mikkelsen, A. and Grønhaug, K. (1999), Verloop, N., Driel, JV, & Meijer, P. (2001). King Abdulaziz and Jamia Millia Islamia (2014) Researches such as [Verloop, N., Driel, JV, & Meijer, P. (2001)] go into depth analysis of the role of goal setting and human resource development strategy in influencing the building faculty of the university.

#### *Remuneration and compensation policy for lecturers (CSDN&TL)*

Compensation is an individual reward which is received to exchange for his or her labor. Remuneration includes something about financial and non-financial (Griffin, GA (Ed.) (1983). Remuneration and compensation policies commensurate with the dedication of faculty which will have a positive effect on the development of faculty staff at the university. The research of Griffin, GA (Ed.) (1983) analyzes the role of remuneration and compensation policies for faculty to attract potential teachers from outside. It is also the motivation for talent people to develop their careers path. Potiyanuwat, P & Wiratchai, N (1999) emphasized the role of material and financial incentives for workers. According to Potiyanuwat, P et al., although making money is not the only motivation for them to develop their talents but it has an important role for them to devote to their full potential because in the end people go to work because of the money. Supporting the idea that universities should increase remuneration and compensation for faculty and see it as an important tool to encourage potential and talented faculty, there are also some researchs such as (Norton, L., J. Richardson, J. Hartley, S. Newstead, and J. Mayes. (2005); Verloop, N., Driel, J.V., & Meijer, P. (2001) .; etc.

#### *The recruitment (TD)*

Recruitment is the process of collecting human who are suitable to the needs of an organization to meet the requirements of performing jobs in that organization. Recruitment is a part of the development of human resources in terms of quantity for the organization and has a significant impact on the quality of the recruited human resources Weick, K. E. (1976) and Werner, J.M .; DeSimone, R.L. (2012). Recruitment has an impact on the development of lecturers of faculty in terms of quantity (increasing human resources from outside to the university) and at the same time affecting



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the quality of the recruited faculty [Khan , I .A. (2012)]; [Griffin, G.A. (Ed.) (1983)]; [Pawar, I.A. & Mouli, S.C. (2008)] .The studies of [Ellis et al., 2012; Hales and Clarke, 2016)]; [Weick, K. E. (1976) and Werner, J.M .; DeSimone, R.L. (2012) said that recruiting new faculty for the university is related to the university's human resources development strategy in terms of both quantity and quality. Authors such as [Khan, I .A. (2012)]; [Griffin, GA (Ed.) (1983)]; [Pawar, IA & Mouli, SC (2008)] analyzed how to recruit to ensure attracting talents for the university while ensuring resonable cost for recruitment. Recruitment must be in line with the university's development strategy in general and the human resources development strategy in particular.

### ***Training and development of faculty of a university (DT&PT)***

The training and development of university faculty is one of the most important factors affecting the development of faculty human resources of universities [(Spottl, G. (2013)]. According to research by Nguyen Van Ha ( 2008) the quality of human resources is the most important measure of the human resources development of an organization and in which training and development plays a key role for creating the quality of human resources of that organization.

Many researches have affirmed the important role of training and development has a significant impact on the development of human resources of university faculty. Some recent prominent studies are [(Spottl, G. (2013)]; [Pellert, A. (2007)]; [Vincent-Lancrin, S. (2011)]; [Vincent-Lancrin, S. ( 2011)]; [Goswami, D. (2010)]; both affirm the role of training and development in relation to faculty development, but the studies all emphasize: training and developing need to clearly define who to be trained, who are trained with prospects or not? Training methods and forms of training, etc. should be flexible, not too rigid.

### ***School budget (NS)***

The budget of a university is understood as all the school's revenues and expenditures made in one year to ensure that the school can operate and perform its educational and training functions. Roger Bennetta\* and Suzanne Kaneb (2014) and IntakhabAlam Khan1 and A.Naseeb Khan2 (2014) also emphasized the importance of school budget related to the development of human resources of the university's faculty. The authors focus on analyzing the effects of finance that affect all activities of the university, including the university's human resources development. The above authors all said that besides there are many tools to develop human resources of faculty, the factor of school budget is important that cannot be skipped. Managers need solutions to increase income for the school through teaching activities, researching applied topics for production and business units, or expand social relations to attract funding from individuals as well as government and non-government organizations.

Synthesizing researches, the author has synthesized activities affecting the development of human resources of university faculty as following table.

**Table 1: Managing activities have effects on development of HR faculty in a university**

No.	Activities	Authors of researches
1	School information communication	Goswami, D. (2010), Griffin, G.A.(Ed.) (1983) và Khan, I. A. (2012). Pawar, I.A.&Mouli, S.C. (2008)); (Griffin, G. A. (Ed.) (1983);
2	Arrangement and utilization of lecturers	của K Akyeampong, K Lussier, J Pryor & J Westbrook, 2013; M Akiba, YL Chiu, K Shimizu & G Liang, 2012; (K Akyeampong, K Lussier, J Pryor & J Westbrook, 2013).
3	Work-place at the university	M Akiba, YL Chiu, K Shimizu & G Liang, 2012; K Akyeampong, J Pryor, J Westbrook & K Lussier, 2013; Kwakman, K. (2003), (M Akiba, YL Chiu, K Shimizu & G Liang, 2012).; Mikkelsen, A. and Grønhaug, K. (1999).), (Kwakman, K. (2003),



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No.	Activities	Authors of researches
4	Human resource development policy	(Verloop, N., Driel, J.V., & Meijer, P. (2001), Wiske, S. (2001).; Mikkelsen, A. and Grønhaug, K. (1999), Verloop, N., Driel, J.V., & Meijer, P. (2001); King Abdulaziz và Jamia Millia Islamia (2014); Verloop, N., Driel, J.V., & Meijer, P. (2001
5	Remuneration and compensation policy	[(Griffin, G.A. (Ed.) (1983)] Pitiyanuwat, P & Wiratchai, N (1999); (Norton, L., J. Richardson, J. Hartley, S. Newstead, and J. Mayes. 2005); [Verloop, N., Driel, J.V., & Meijer, P. (2001
6	Recruitment	[Ellis et al., 2012; Hales và Clarke, 2016)]; [Weick, K. E. (1976) và Werner, J.M.; DeSimone, R.L. (2012); /Khan, I.A. (2012)]; [Griffin, G.A. (Ed.) (1983)]; [Pawar, I.A. & Mouli, S.C. (2008)
7	Training and development	[ (Spottl, G. (2013)].; [Pellert, A. (2007)]; [Vincent-Lancrin, S. (2011)]; [Vincent-Lancrin, S. (2011)]; [Goswami, D. (2010)];
8	School budget	Roger Bennetta* and Suzanne Kaneb (2014) và Intakhab Alam Khan1 and A. Naseeb Khan2 (2014);

*Sources: Synthesis of author.*

### ***Developing human resources of lecturers in universities***

The development of lecturer human resources in a university is the process of developing among quantity, quality and structure of lecturers of a university which is more and more reasonable to meet the development requirements of the university. It is the process of increasing the quantity, improving the quality on the physical, mental, skill and spiritual aspects along with the change in the human resource structure that is increasingly reasonable to meet the teaching requirements of the university.

*Quantitative development:* showing the increase in quantity, but ensuring the structural synchronization in the faculty, including: age structure, gender structure, industrial job structure. Industrial job structure means the ratio of lecturers among divisions, faculties and programs of disciplines. If this ratio is consistent with the prescribed norm, there will be a reasonable professional structure.

*Quality development:* The quality of university faculty shows development in the following 3 basic factors:

*Professional capacity:* is the professional level where the lecturer is trained at the bachelor, master or doctor level.

*Research capacity:* lecturers' scientific research capacity is shown in published scientific works, especially those published in international journals; these researches will enhance the credibility of individuals and organizations, which have an important supportive effect on improving the quality of lecturers and instruction for students about scientific researches.

*Pedagogical capacity* is a psychological capacity, expressing the proficiency and artistic and creative level of teachers in teaching activities, it includes a system of skills: communication skills; pedagogical behavior; writing boards and presenting boards; using teaching technical methods; organize and control students' independent work; convey information to students in a concise, easy to understand way; proficient use of language and non-verbal language; educating and convincing to form beliefs for learners.



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### 3. Research Methods

*The researches are carried out as following steps*

*Step 1:* synthesize documents on managing activities affecting the development of human resources of faculty of the university as a base for building research model.

*Step 2:* From the synthesis of research results, the research model of managing activities affecting the development of faculty of non-public university was initially established.

The results of the synthesis of research documents and initial interview results have identified 80 criteria showing the related factors affecting the development of faculty of non-public university. In order to reduce the number of these observed variables to make the research model simpler and more focused on the research problem, a group of 5 experts was invited to evaluate.

Using the Delphi round 2 questionnaire method to evaluate:

*Round 1:* each expert will evaluate the representativeness of the criteria representing each factor, the criteria that are duplicated or reflect the impact of factors with faintness will be removed.

*Round 2:* experts discuss to give the final assessment of the criteria for which criteria have not been reached. Finally, the criteria are selected which will be added as a scale of the impact assessment model of the factors on the development of faculty of non-public university.

*Step 3:* Based on the evaluation criteria of the scale of the impact of managing activities on the development of faculty of non-public university will be tested through survey evaluation of the subjects as it is mentioned above. The assessment scale of the survey uses a Likert scale of 5 levels: 1: strongly disagree; 2: disagree a part; 3: neutral; 4: agree; 5: strongly agree.

*Step 4:* Set up the questionnaire, determine the sample size.

*Step 5:* Conduct collecting data. Collected data will be encrypted and scanned, then put into SPSS software. Run and process data. Conduct tests, run the results and then analyze the results.

#### **Research design.**

##### *Research sample identification*

- *Sample size:*

The number of survey samples is calculated according to a random formula to ensure the representative of the study. The sample is determined by the formula Slovin as follows:

$$n = N / (1 + N * \square^2)$$

Where n: sample size; N: Overall sample - According to the Ministry of Education and Training's statistics by 2018 the number of non-public university lecturers is N = 15158

□: sample confidence level = 0.05; Result n = 390

- *Subject:*

The sample includes lecturers from non-public universities, managing level: principals, administrators and faculty in departments of the university. Senior lecturers were divided into 4 levels: less than 5 years; 5 - 10 years; 10 - 15 years and over 15 years. With enough qualifications from bachelor to doctorate.



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**Table 3: Descriptive statistic of research samples**

Objects	Ratio	Percentage (%)	Accumulated percentage (%)
(1)	(2)	(3)	(4)
<b>1. Gender</b>			
Male	178	45.6	45.6
Female	212	54.4	100.0
<b>Total</b>	<b>390</b>	<b>100.0</b>	
<b>2. Age</b>			
Under 30 years old	14	3.7	3.7
30 – under 40 years old	129	33.0	36.7
40 – under 50 years old	137	35.2	71.9
From 50 years old	110	28.1	100.0
<b>Total</b>	<b>390</b>	<b>100.0</b>	
<b>3. Qualification</b>			
Bachelor Degree	70	17.8	17.8
Master Degree	66	17.0	34.8
Doctorate	254	65.2	100.0
<b>Total</b>	<b>390</b>	<b>100.0</b>	
<b>4. Position</b>			
Administrators	101	25.9	25.9
Head and vice-head of Field	100	25.6	51.5
Head and vice-head of Subject	118	30.4	81.9
Lecture	71	18.1	100.0
<b>Total</b>	<b>390</b>	<b>100.0</b>	
<b>5. Experience</b>			
Under 5 years	10	2.6	2.6
5 – under 10 years	111	28.5	31.1
10 – 15 years	120	30.7	61.9
Over 15 years	148	38.1	100.0
<b>Total</b>	<b>390</b>	<b>100.0</b>	

*Source: Author's synthesis*

### ***Design a questionnaire for the survey:***

The questionnaire is designed with 3 parts:

*Part 1:* introduce to the respondents about the purpose and meaning of the survey and guarantee the confidentiality of the information they provide.

*Part 2:* Find out the respondent's personal information.

*Part 3:* Find out the extent of the respondents' assessment of statements related to external environmental factors and internal environmental factors and the development of faculty of the university.

The questions (observation) of influencing factors are built to reflect the nature of those factors. To ensure this requirement, the questions are built on the theoretical basis of factors affecting the development of faculty of non-public university together with the consultation of experts.

Survey results, after being collected, will be scanned, encoded, data entered and processed by using SPSS software.

## 4. RESEARCH RESULTS

### *Performing exploratory factor analysis (EFA) of human resource management*

Test results KMO and Barlett's Test showed  $KMO = 0.875 > 0.5$  and  $Sig\ Barlett's\ Test = 0.00 < 0.05$ . Thus, the sample size is suitable enough to conduct analyzing factors. The EFA results show that there are 8 factors extracted from 34 observed variables measuring the properties in a group of managing activities and the observed variables with load coefficients bigger than 0.5 will be accepted. . These 8 extracted factors 61,706% variance and named include: School information communication (TT); Arrangement and utilization of lecturers (BTSD); Working environment (MTLV); Remuneration and compensation policy (CSDN&TL); human resource development policy (CSD); Recruitment (TD); Training and development (DT&PT); School budget (NS). The results of the discovery factor analysis EFA are shown in the table below.

**Table 4: The discovery factor analysis EFA**

The observed variables	Factors							
	1	2	3	4	5	6	7	8
TT1	0,715							
TT2	0,714							
TT3	0,817							
TT4	0,745							
BTSD1		0,753						
BTSD2		0,687						
BTSD3		0,817						
BTSD4		0,634						
MTLV1			0,794					
MTLV2			0,803					
MTLV3			0,76					
MTLV4			0,808					
MTLV5			0,806					
CSDN&TL1				0,783				
CSDN&TL2				0,765				
CSDN&TL3				0,854				
CSPTNNL1					0,672			
CSPTNNL2					0,763			
CSPTNNL3					0,872			
CSPTNNL4					0,765			
CSPTNNL5					0,787			
TD1						0,766		
TD2						0,754		
TD3						0,678		
TD4						0,772		
DT&PT1							0,782	
DT&PT2							0,873	
DT&PT3							0,768	
DT&PT4							0,77	
DT&PT5							0,754	
NS1								0,76
NS2								0,82
NS3								0,65
NS4								0,72

*Source: Data processing results on SPSS software*

### *Test a scale of factors by analyzing Cronbach's Alpha coefficients*

The results of testing the scale of the factors by Cronbach's Alpha coefficients showed that all factors have Cronbach's Alpha coefficients are  $> 0.7$  and observed variables in each factor have correlation coefficients with total variables  $> 0.5$ . Thus, the observed variables in the factors can be used and they represent the properties of those factors.



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**Table 5: Test scale**

Code	The observed variables	Total variables	Cronbach's Alpha
<b>TT. Communication in the university.</b>			
<b>Cronbach's Alpha = 0.853</b>			
TT1	Lecturers always get the information about HR in the university.	0,747	0,790
TT2	Lecturers always get the information about developing of fields in the university.	0,725	0,800
TT3	Lecturers always get the information about improving science-tech.	0,703	0,809
TT4	Lecturers are always answered questions about issues that exist in the school	0,607	0,847
<b>BTSD. Arrangement and utilization of lecturers</b>			
<b>Cronbach's Alpha = 0.742</b>			
BTSDNL1	Arrangement and utilization the right expertise and capacity of lecturers	0,585	0,654
BTSDNL2	The right arrangement creates conditions for lecturers to ask each other to improve their capacity.	0,691	0,707
BTSDNL3	Effective assignment ensures teachers' professional development.	0,553	0,673
BTSDNL4	Encourage lecturers to research in new, specialized fields.	0,513	0,696
<b>MTLV. Working environment</b>			
<b>Cronbach's Alpha = 0.797</b>			
MTLV1	The relationship between lecturers is friendly.	0,545	0,769
MTLV2	Relationship between superiors and subordinates.	0,636	0,740
MTLV3	Lecturers have access to a favorable academic environment.	0,507	0,781
MTLV4	Lecturers have conditions to refer to research materials.	0,652	0,734
MTLV5	Lecturers believe and love teaching.	0,554	0,767
<b>CSDN&amp;TL. Remuneration and compensation policy</b>			
<b>Cronbach's Alpha = 0.902</b>			
CSDN&TL1	Remuneration policy commensurate with work results.	0,716	0,887
CSDN&TL2	Salary and incentive policies encourage to develop teaching.	0,721	0,887
CSDN&TL3	Remuneration policy ensures all parts fairness.	0,756	0,881
<b>CSPTNNL. Policy for developing human resources of lecturers</b>			
<b>Cronbach's Alpha = 0.790</b>			
CSPTNNL1	The university has a detail plan to develop human resources of faculty.	0,545	0,769
CSPTNNL2	Training and management of human resource department of the university always goes with the plan.	0,636	0,740
CSPTNNL3	The university always aims to increase the percentage of highly qualified faculty.	0,507	0,781
CSPTNNL4	The university rules and regulations always afford favorable conditions for the next research lecturers.	0,652	0,734
<b>TD. Recruitment</b>			
<b>Cronbach's Alpha = 0.860</b>			
TD1	Hiring standards are higher.	0,597	0,844
TD2	The university attracts quality lecturers.	0,672	0,834
TD3	Recruitment criteria are clear and specific.	0,621	0,841
TD4	The recruitment process is scientific and objective.	0,636	0,839



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Code	The observed variables	Total variables	Cronbach's Alpha
<b>DT&amp;PT. Training and development</b>			
<b>Cronbach's Alpha = 0.879</b>			
DT&PT1	The university supports training costs.	0,665	0,864
DT&PT2	The university supports research funding.	0,714	0,853
DT&PT3	The university organizes training courses for lecturers.	0,632	0,871
DT&PT4	Organize scientific conferences.	0,822	0,829
DT&PT5	Exchange lecturers with domestic and foreign university.		
<b>NS. School budget</b>			
<b>Cronbach's Alpha = 0.742</b>			
NS1	The university increasingly attaches importance to the budget for the development of human resources of faculty.	0,585	0,654
NS2	School budgets are devoted to develop scientific and technical research.	0,591	0,707
NS3	University development budget	0,553	0,673
NS4	The school budget ensures the life of the faculty.		
<b>Y. Development HR of faculty in the university.</b>			
<b>Cronbach's Alpha = 0.730</b>			
PTNNL1	Education level of higher educated lecturers.	0,544	0,656
PTNNL2	The teaching ability of the lecturers has been improved.	0,577	0,694
PTNNL3	The lecturers's research ability is better.	0,586	0,688
PTNNL4	Lecturers are more and more attached to their careers.	0,578	0,637
PTNNL5	Lecturers are more responsible for teaching.	0,665	0,864
PTNNL6	The number of lecturers increased.	0,714	0,853

*Source: Data processing results on SPSS software*

### **Regression equation of the model**

*Results of the model's regression*

**Table 6: Regression results**

	Model	Unstandardized Coefficients		Standardized coefficient	T	Sig.	Collinearity Statistics	
		B	Std. Error				Beta	Tolerance
1	(Constant)	0,888	0,033		0,027	0,003		
	TT	0,88	0,009	0,077	9,275	0,000	0,763	1,311
	BTSD	0,561	0,023	0,223	9,301	0,000	0,581	1,722
	MTLV	0,112	0,073	0,15	7,67	0,000	0,649	1,542
	CSDN&TL	0,14	0,008	0,386	14,842	0,000	0,609	1,641
	CSPTNNL	0,048	0,009	0,013	15,165	0,000	0,426	2,352
	TD	0,224	0,037	0,55	13,03	0,000	0,556	1,799
	DT&PT	0,164	0,012	0,402	4,211	0,000	0,654	1,528
	NS	0,077	0,013	0,215	17,396	0,000	0,670	1,493

*Dependent variable: Y: Human resource development of non-public university faculty.*

*Source: Results processed on SPSS from author's survey data*



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The results of the Enter method shown in the table that show the accepted model with 8 factors affecting the development of non-public university faculty. The regression equation is written as follows:

$$PTNNL = 0,888 + 0,08 * TT + 0,561 * BTSD + 0,112 * MTLV + 0,14 * CSDN \& TL + 0,048 * CSPTNNL + 0,224 * TD + 0,164 * DT \& PT + 0,077 * NS$$

**Table 7: Summary regression model**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standardized Error of the Estimate	F	df1	df2	Durbin Watson	Sig. F
1	0,842	0,71	0,700	0,548	70,616	6	250	2,085	0,00

a. Prediction: (Constant): TT, BTSD, MTLV, CSDN & TL, CSPTNNL, TD, DT & PT, NS.

b. Dependent variable PTNNL.

### *Perform tests of a regression function*

Tests performed include:

#### *Test the multi-collinearity phenomenon of the model.*

The results in Table 5 show that the VIF of the independent variables are all less than 10, so we can conclude that the model does not have multicollinearity

#### *Test the correlation and autocorrelation phenomenon of the independent variables.*

The results showed that the coefficient Durbin - Watson  $D = 2.085$ . (see Table 6) it can be concluded that the model has no correlation and autocorrelation because according to Trong Hoang and Chu Nguyen Mong Ngoc (2005) in the case when  $n > 200$  does not have a lookup table, it can be applied experimental inspection rules:

When the Durbin - Watson coefficient  $0 \leq D < 1$ , there is a positive correlation.

When  $D: 1 = < D \leq 3$ , there is no correlation.

When  $D: 3 = < D \leq 4$ , there is an inverse correlation.

#### *Verify the model's constant variance.*

In this study, the author uses the Spearman rank correlation test between normalized residuals and independent variables. If the Spearman correlation sig value between the normalized residue (ABSRES) and the independent variables is  $> 0.05$ , it can be concluded that no variance change occurs.

The test results show that all Spearman correlations between the normalized residuals (ABSRES) and the independent variables are  $> 0.05$ . See appendix.

#### *Verifying the suitability of the model with the data set.*

The results of ANOVA analysis table show that sig of the model = 0.00, so the used model is completely consistent with the whole.

**Table 8: ANOVA Analysis Table**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	190,902	10	21,211	70,616	0,00
Residual	78,098	250	0,300		
Total	269	256			

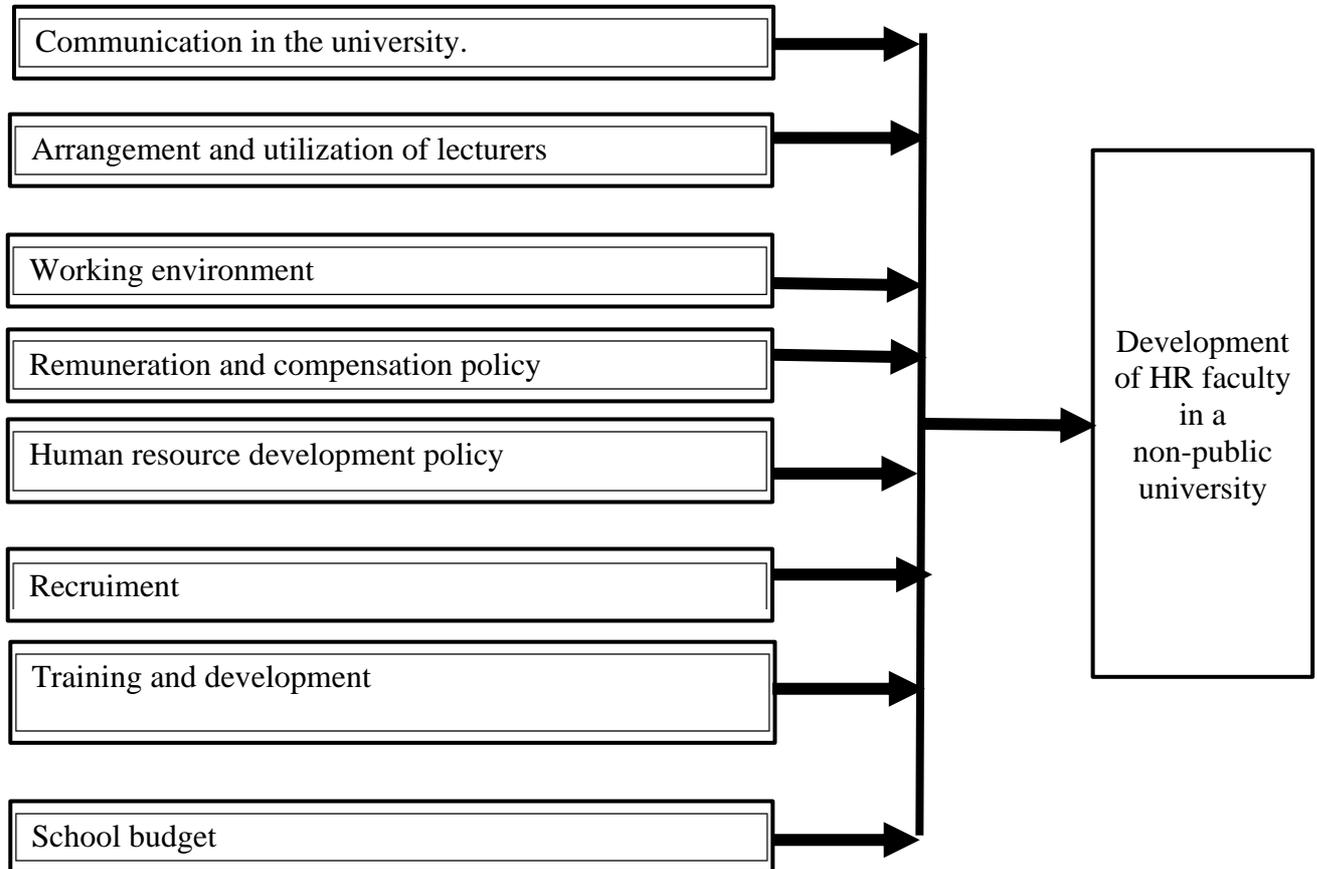
*Source: Data processing results on SPSS software.*

#### *Test the standardized residue of the model*

Performing this test, the author uses P-P Plot diagram, the results show that the dots are concentrated in the form of a diagonal, thus assuming the normal distribution of the residual is not violated. See appendix.

So, after performing the tests of linear regression, the test results are satisfactory, the model can be used. The model of the impact of managing activities on the development of non-public university faculty is shown:

**Formal research model used:**



*Source: Sugestion from the author.*

## 5. CONCLUSION AND IMPLICATIONS

### *Conclusion*

From the regression results in table 5 shows that there are 8 important factors affecting the development of human resources faculty in the non-public university through such factors as: TT, TD, BTSD, MTLV, CSDN & TL, CSDPT, NS. The level of impact of these 8 factors can be explained by 71% ( $R^2 = 0.71$ ) of the change of the agricultural development (Development of human resources of non-public university faculty).

All 8 factors have regression coefficients (+) (see table 5). This proves that all 8 factors have positive effects in the same direction with the dependent variable of Medicine (PTNNL), that means they have a positive impact on the development of faculty human resources of the university.

Based on the Beta coefficient (standardized regression coefficient), see Table 5, we know the strong influence of the factors on the variable agricultural development (Development of human resources of non-public university faculty), respectively:  $TD > \text{DT\&PT} > \text{CSDN\&TL} > \text{BTSD} > \text{NS} > \text{MTLV} > \text{TT} > \text{CSPTNNL}$ . The variable of TD has the strongest and CSPTNNL has the weakest impact.

Given the importance of these variables, managers should focus on variables ranked highly influenced because each change of them will lead to a large variation of the variable Y (PTNNL). In non-public universities, to develop faculty of lecturers, managers should first focus on recruitment (TD). This is



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completely consistent with the current situation of Vietnam, because most of the non-public universities want to have good lecturers, the most important issue is still the initial human resource collecting. This is decisive to the development of the university's lecturers in the future.

### *Administrative implications*

Regression results of the model of factors affecting the development of human resources of non-public university faculty have suggested some of the following issues for managers:

*Firstly*, the development of faculty human resources of non-public universities is mainly based on the internal strengths of each university. This is different from public universities, the development of human resources of faculty mainly depends on the Own Department of the Government (the Ministry of Education and Training), and Government support (from policy, investment, finance, etc.).

*Secondly*, due to recruitment factor (TD) has the strongest influence on the development of human resources of faculty, non-public universities need to focus on doing well this work. To do this, university should step by step innovate and improve the criteria for recruiting staff to the university, ensuring the recruitment of qualified staff, capable of developing university lecturers. Need to complete the recruitment process, recruitment policy.

*Thirdly*, complete the training and development of the university's faculty because it is the most important factor deciding the development of faculty human resources in terms of quality, so non-public universities need to implement. Well, some of the following measures to improve the positivity and minimize the negative effects of this factor on the development of university faculty human resources. In order to do that, non-public universities need to renew training programs and training methods for young lecturers, and need to perfect policies on professional training for young lecturers.

*Fourthly*, improve the working environment for the faculty. There is also a factor that have an effect on the faculty development. Improved working environment includes: improving the relationship between superiors and subordinates; the relationship between lecturers; build a good academic environment to facilitate the ability of lecturers to develop their expertise;

*Finally*, the policy of remuneration and compensation for lecturers. This factor is also very important to attract high quality human resources from outside to university and keep talented lecturers in the school. To improve this factor there are a number of issues to note:

- Improve the material and spiritual life of the lecturers
- Evaluation criteria for lecturers' performance should be specific, clear and transparent.
- Salary policy should be associated with the achievements of the lecturers.

*In additional*, it is necessary to have solutions to increase operating budget in non-public universities. The research results show that this factor also has a significant impact on the development of human resources of non-public university faculty. To increase the budget for the school there are some basic solutions such as:

- Developing scientific research services for production facilities to increase revenues for the university.
- Improving the quality of training to serve as a basis for tuition fees from learners.
- Expand types of training services to increase income for the university.
- Use financial resources effectively, cut unnecessary investments.

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## THE EFFECT OF STRESS AROUSAL AND SUPERVISOR SUPPORT ON BURNOUT IN LOCAL GOVERNMENT INTERNAL AUDITORS

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### Abstract

**Purpose:** The aim of this study is to examine empirically the effect of stress arousal and supervisor support on burnout dimensions.

**Research Methodology:** This study used an online survey method with a questionnaire. The sample of this study is the local government internal auditors in the Regency/City Government Inspectorate in Southern Sumatra Province. The total number of respondents in this study were 163 local government internal auditors from 17 Regency/City Inspectorates in 4 provinces in Southern Sumatra.

**Results:** The results of this study show that stress arousal has a positive effect on emotional exhaustion and depersonalization, but there is no effect stress arousal on reduced personal accomplishment. Furthermore, the results of this study show that supervisor support has a negative effect with emotional exhaustion, depersonalization and reduced personal accomplishment.

**Limitations:** This study only examines the phenomenon of burnout in terms of the influence of stress arousal and supervisor support on the burnout dimension. This study has not examined more comprehensively the effect of these two variables on the burnout dimension in terms of gender differences.

**Contribution:** The contribution of this study extends the external validity of the study (Smith et al., 2017), (Smith & Emerson, 2017), and (Charoensukmongkol et al., 2016) by examining whether the results of their study can be generalized in different organization type. This study will test the research model on local government internal auditors.

**Keywords:** *burnout, stress arousal, supervisor support, local government internal auditors*

### 1. INTRODUCTION

Smith et al. (2007) as cited by (Smith & Emerson, 2017) extend the research model of the relationship between role stress and burnout in accounting by adding a stress arousal variable which is positioned as a consequence of role stress and antecedents of burnout, and testing it as a mediating variable in the relationship between role stress and burnout. The results of his study show empirical support for statements (Smith, Davy, & Everly, 2006) regarding the order of stress arousal and burnout in the accountant stress model. (Smith et al., 2006) state that burnout and stress arousal are both a response to environmental stressors, but stress arousal represents a direct response to environmental stressors so that stress arousal can have a direct effect on burnout in addition to functioning as a mediating influence between elements of work stress and burnout. The results of the study (Smith, Emerson, & Everly, 2017) and (Smith & Emerson, 2017) found a relationship between stress arousal and individual components of burnout.

Social support can come from supervisors, coworkers, family, organizations and so on. (Charoensukmongkol et al., 2016) examined the role of supervisor support and co-worker support on burnout using a sample of supervisors and employees from two universities in South Texas. The results of his study indicate that co-worker support has a negative relationship with emotional exhaustion and depersonalization but not with reduced personal accomplishment, while supervisor support has a negative relationship with all aspects or dimensions of burnout. Employees who feel they receive good support from their superiors tend to report lower burnout (Charoensukmongkol et



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al., 2016). The results of this study (Charoensukmongkol et al., 2016) indicate that supervisor support can be used as an effective strategy in reducing burnout.

This study examines the effect of stress arousal and supervisor support on burnout dimensions. This study extends the external validity of the study (Smith et al., 2017), (Smith & Emerson, 2017), and (Charoensukmongkol et al., 2016) by examining whether the results of their study can be generalized in different organization type. This study will test the research model on local government internal auditors. This study will use a different type of measurement for the burnout variable from previous researchers. Most of the researchers previously used the Maslach Burnout Inventory (MBI) which consisted of 22 question items to measure burnout (Charoensukmongkol et al., 2016; Chong & Monroe, 2015; Sochos, Bowers, & Kinman, 2012). (Singh, Goolsby, & Rhoads, 1994) found that MBI failed to capture the complexity of role-set boundary spanning personnel so they proposed a Multidimensional Role-Specific Burnout (MROB) measure that used 24 items for 3 conceptual dimensions of burnout and 4 target role senders (direct supervisor, top management, colleagues and customers).

The MROB is very appropriate for measuring burnout in local government internal auditors compared to MBI. Internal auditors fill critical boundary spanning roles in their organizations by the way they interact with and evaluate managers throughout the organization and report audit results to top management and the audit committee (Fogarty & Kalbers, 2006). The MROB instrument allows internal auditors to report their potential variable pressures regarding supervisors (direct supervisors), coworkers, top management, and clients (audited managers) (Fogarty & Kalbers, 2006). In the context of local government internal auditors, MROB allows them to report indications of pressure or burnout conditions caused by interactions with direct superiors, colleagues, managers of Regional Apparatus Organizations and top management or the Regent through the Regional Secretary. This suggests that MROB is an appropriate measure of burnout variables for local government internal auditors.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Conservation of Resources (COR) Theory

Conservation of Resources (COR) theory is based on the principle that individuals are motivated to protect their current resources (conservation) and acquire new resources (acquisitions) (Halbesleben, Neveu, Paustian-Underdahl, & Westman, 2014). Resources are defined as objects (for example: tools), personal characteristics (for example: emotional stability), conditions (for example: social support) and energy (for example: money) that are valued by individuals as a means of obtaining and strengthening resources (Alarcon, 2011). COR theory is based on several principles, i.e. (1) the advantage of losing resources and (2) investment in resources (Halbesleben et al., 2014; Hobfoll, 2001).

Based on the COR theory, emotional exhaustion occurs first, then depersonalization appears as a maladaptive coping mechanism to deal with excessive demands and lack of resources (Alarcon, 2011). However, this maladaptive coping style led to reduced personal accomplishment (Alarcon, 2011). This event starts a spiral of resource loss, which is a burnout process (Alarcon, 2011).

### Burnout

Burnout is defined as a psychological syndrome of emotional exhaustion (emotional exhaustion), depersonalization (depersonalization), and reduced personal accomplishment that can occur among individuals who work with other people in certain capacities (Maslach, 1993 as cited (Brouwers, Evers, & Tomic, 2001). Burnout consists of 3 dimensions, namely emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion is a chronic state of physical and emotional depletion resulting from excessive work demands and continuous inconvenience (Wright & Cropanzano, 1998) Depersonalization refers to a negative, unfeeling response, or too detached and indifferent to others (eg. clients, co-workers) (Janssen, Schaufelie, &



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Houkes, 1999; Smith & Emerson, 2017). Reduced personal accomplishment refers to on decreasing one's feelings about competence and achievement success in work (Janssen et al., 1999).

### Supervisor Support

Supervisor support is defined as the extent to which direct supervisors provide encouragement and support employees in their work groups (Griffin, Patterson, & West, 2001). (Charoensukmongkol et al., 2016) examined the role of supervisor support and co-worker support on burnout using a sample of supervisors and employees from two universities in South Texas. The results of their study show that co-worker support has a negative relationship with emotional exhaustion and depersonalization but not with reduced personal accomplishment, while supervisor support has a negative relationship with all aspects or dimensions of burnout. Employees who feel they receive good support from their superiors tend to report lower burnout (Charoensukmongkol et al., 2016).

### Hypothesis Development

H<sub>1a</sub> : *Stress arousal* has a positive effect with *emotional exhaustion*

H<sub>1b</sub> : *Stress arousal* has a positive effect with *depersonalization*

H<sub>1c</sub> : *Stress arousal* has a positive effect with *reduced personal accomplishment*

H<sub>2a</sub> : *Supervisor support* has a negative effect with *emotional exhaustion*

H<sub>2b</sub> : *Supervisor support* has a negative effect with *depersonalization*

H<sub>2c</sub> : *Supervisor support* has a negative effect with *reduced personal accomplishment*

### 3. RESEARCH METHODOLOGY

This study used a survey method with a questionnaire. The survey used is an online survey, which is sending a questionnaire via email or social media. The sample of this study is the local government internal auditors. The object of this research is the auditors of the Regency/City Government Inspectorate in Southern Sumatra Province, consists of South Sumatra Province, Lampung Province, Bengkulu Province and Bangka Belitung Province. The sampling technique was carried out using purposive sampling method with criteria or judgment sampling. The sample criteria of this study are (1) Auditor of the Regency/City Government Inspectorate who has a functional position as auditor (JFA) or a functional position to supervise the administration of government affairs in the regions (JP2UPD) because the two functional positions are assigned to carry out supervisory activities in government agencies and regional institutions. (2) Regency/City Government Inspectorate auditors who have been conducting audit assignments for at least 1 year.

Burnout is defined as a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with other people in certain capacities (Maslach, 1993 as cited (Brouwers et al., 2001). Burnout was measured using 8 question items from the Multidimensional Role-Specific Burnout (MROB) instrument developed by (Singh et al., 1994). Each question was measured using a 5-point Likert scale ('1' = 'never' up to '5' = 'always'). The instrument will be slightly modified to be relevant to the condition of the local government internal auditors. This instrument has been used by several previous researchers and has good validity and reliability (Fogarty & Kalbers, 2006; Fogarty, Singh, Rhoads, & Moore, 2000; Smith et al., 2006).

Stress arousal is defined as sufficient predictable stimulation of the psycho-physiological system (mind-body) in which, if prolonged, can tire or damage the system to the point of malfunction or disease (Girdano and Everly, 1986 as cited (Smith & Emerson, 2017)). Stress arousal was measured using the Stress Arousal Scale 4 (SAS4) developed by (Smith, Everly, & Haight, 2012). The 4-item scale is designed to measure worry and rumination which is a component of stress arousal (Smith & Emerson, 2017). SAS4 is measured using a 4-point Likert scale ('1' = 'rarely or never' to '4' = 'almost always').

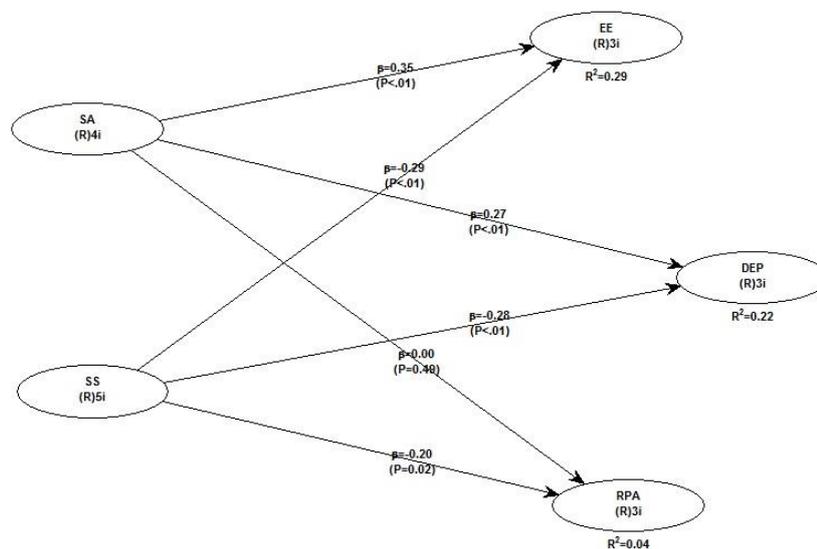
Supervisor support is defined as the extent to which direct supervisors provide encouragement and support employees in their work groups (Griffin, Patterson, & West, 2001). Supervisor support is measured by replacing the term organization with the term supervisor in the Survey of Perceived Organizational Support (SPOS) developed by (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Eight items from 36 items with high loading values were adopted from SPOS to measure supervisor support (Items no 4, 8, 9, 13, 20, 22, 23, and 25; with loading values from 0.66 to 0.84) (Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). Each question was measured using a 5-point Likert scale ('1' = 'strongly disagree' to '5' = 'strongly agree'). This method has also been carried out in research (Khelil, Akrouf, Hussainey, & Noubbigh, 2018) to measure supervisor support using a sample of internal auditors in the company, the loading values for the eight items range from 0.799 to 0.945.

## 4. RESULTS AND DISCUSSIONS

### Respondent Profile

The total number of respondents in this study were 163 local government internal auditors from 17 Regency/City Inspectorates in 4 provinces in Southern Sumatra. The inspectorates consist of 10 Regency/City Government Inspectorates in South Sumatra Province, 4 Regency/City Government Inspectors in Bengkulu Province, 2 Regency/City Government Inspectors in Bangka Belitung Province, and 1 Regency/City Government Inspectorates in Lampung Province.

Most of the respondents in this study were over 36 years old (71.17%), male (49.08%) and female (50.92%), graduated from undergraduate degree (71.17%) and master degree (28.22%) from accounting major (25.15%). Most of the respondents in this study had work experience as auditors or examiners for 1-5 years (56.44%) and 6-10 years (31.90%). Most of the respondents in this study were local government internal auditors who had certification of functional auditor positions (88.34%) and P2UPD (11.66%). Most of the respondents in this study were local government internal auditors who have been involved in audit assignments more than 15 times (81.60%).



### Validity and Reliability Test

#### Convergent Validity

The results of the loading value of several indicators from each construct in this study are above 0.50 with p-value  $< 0.001$  and the Average Variance Extracted (AVE) value for all constructs are above 0.50. These results indicate that all of the research variables have met the criteria for convergent validity. The result of convergent validity shows that most of the construct indicators of stress arousal,



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supervisor support, and burnout meet the criteria of convergent validity. The stress arousal construct consists of 4 indicators, namely SA1, SA2, SA3, and SA4. The supervisor support construct consists of 5 indicators, namely SS2, SS3, SS4, SS6, and SS8, while 3 other indicators are taken out. All burnout constructs consisting of emotional exhaustion, depersonalization, and reduced personal accomplishment met the convergent validity criteria. The emotional exhaustion construct consists of 3 indicators, namely EE1, EE2, and EE3. The depersonalization construct consists of 3 indicators, namely DEP1, DEP2, and DEP3. The reduced personal accomplishment construct consists of 3 indicators, namely RPA1, RPA2 and RPA3.

### Discriminant Validity

The result of the square root value of AVE in the diagonal column is greater than the correlation between constructs in the same column (above or below it). These results indicate that all constructs in this research model have met the criteria for discriminant validity.

### Internal Consistency Reliability

The results of the analysis of the measurement model of this study indicate that all the constructs in this research model have Cronbach's alpha and composite reliability values above 0.60. This means that all the constructs of this research model have met the criteria for internal consistency reliability.

### Hypothesis Testing and Discussion

The results of the analysis using structural equation modeling-partial least squares (SEM-PLS) using WarpPLS show that this research model has an APC value of 0.233 with a p-value <0.001, an ARS value of 0.185 with a p-value of <0.001, and an AVIF value amounting to 1.190. The results of the significant APC and ARS values (p-value <0.01) and the AVIF value less than 5 indicate that this research model has met the criteria for the Goodness of fit model.

The SEM-PLS analysis results also show that the emotional exhaustion construct has an R-squared of 0.29, which means that the variation of changes in emotional exhaustion variables that can be explained by stress arousal variables and supervisor support is 29%, while the rest is explained by other variables outside this research model. The R-squared depersonalization construct of 0.22 means that the depersonalization variable that can be explained by the stress arousal variable and supervisor support is 22%, while the rest is explained by other variables outside of this research model. R-squared for reduced personal accomplishment construct is 0.41 meaning that the reduced personal accomplishment variable which can be explained by stress arousal and supervisor support variables is 41%, while the rest is explained by other variables outside of this research model.

**Table 1. Results of Hypothesis Testing**

Hypothesis	Variable Relationship	Direction	Path Coefficient	p-values
H <sub>1a</sub>	SA – EE	+	0,353	<0,001*
H <sub>1b</sub>	SA – DEP	+	0,274	<0,001*
H <sub>1c</sub>	SA – RPA	+	0,004	0,488
H <sub>2a</sub>	SS – EE	-	-0,285	<0,001*
H <sub>2b</sub>	SS – DEP	-	-0,278	<0,001*
H <sub>2c</sub>	SS – RPA	-	-0,205	0,017*

\*\*\*level of significance 10% (p-value < 0.10)

\*\*level of significance 5% (p-value < 0.05)

\*level of significance 1% (p-value < 0.01)

H<sub>1a</sub> and H<sub>1b</sub> states that stress arousal has a positive effect with emotional exhaustion, depersonalization and reduced personal accomplishment. The results of SEM-PLS analysis in Table 1 show that stress arousal has a positive effect with emotional exhaustion (path coefficient = 0.353, p-value <0.001) and stress arousal has a positive effect on depersonalization (path coefficient = 0.274,



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p-value <0.001). Meanwhile, stress arousal had no effect on reduced personal accomplishment (path coefficient = 0.004, p-value 0.488). This means that H1a and H1b are supported, while H1c is not.

H2a to H2c states that supervisor support has a negative effect with emotional exhaustion, depersonalization and reduced personal accomplishment. The results of SEM-PLS analysis in Table 1 indicate that supervisor support has a negative effect on emotional exhaustion (path coefficient = -0.285, p-value <0.001). Supervisor support has also a negative effect on depersonalization (path coefficient = -0.278, p-value <0.001). Furthermore, it is also found that supervisor support has a negative effect on reduced personal accomplishment (path coefficient = -0.205, p-value 0.017). This means that H2a, H2b, and H2c in this study are supported.

### CONCLUSION

This study aims to examine the phenomenon of stress arousal and supervisor support against burnout in local government internal auditors. Based on the results of the SEM-PLS analysis, it shows that most of the hypotheses are supported. H1a, H1b, H2a, H2b, and H2c are supported, while H1c is not. The results of this study indicate that stress arousal has a positive effect on emotional exhaustion and depersonalization, while stress arousal has no effect with reduced personal accomplishment. The results of this study also indicate that supervisor support has a negative effect with emotional exhaustion, depersonalization and reduced personal accomplishment.

### LIMITATION AND STUDY FORWARD

This study only examines the phenomenon of burnout in terms of the influence of stress arousal and supervisor support on the burnout dimension. This study has not examined more comprehensively the effect of these two variables on the burnout dimension in terms of gender differences. Future studies can analyze burnout from gender perspective using this research model.

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## FINANCIAL LITERACY AND RETIREMENT PLANNING: A DESCRIPTIVE STUDY

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### Abstract

**Purpose:** The aim of this study is to see descriptively the characteristics of individuals related to their financial literacy and their ability to do retirement planning.

**Research Methodology:** This study is a descriptive-survey research aiming to know the extent of which people plan for their retirement and its relation to financial literacy. The data is obtained through questionnaires and the number of sample in this study is 173 respondents.

**Results:** The results show that women are tend to be successful in planning for retirement. There is also trend in education meaning that the higher the education there is a higher likeliness that the individual will succeed in planning. Furthermore, we are fail to see the trend in the age group. We are enable to see whether the older and the closer someone to the retirement age, the better they will be in planning their retirement.

**Limitations:** This study only employ descriptive analysis to see the association between characteristics of individual and financial literacy as well as retirement planning. Further studies are suggested to examine the causal relationship between the variables.

**Contribution:** The contribution of this study includes adding to the financial literature on the characteristics and individual's ability to make financial planning for retirement. The research results are expected to be used as input for the government in reducing the number of sandwich generation

**Keywords:** *retirement planning, financial literacy, descriptive analysis*

### 1. INTRODUCTION

Sandwich generation is a term in finance that describes the financial burden of taking care of children and parents or other family members at the same time. Sandwich generation is an expression given to generations who are married and have children but at the same time have to pay for their parents who no longer have income. One of the causes of sandwich generation, among others, is the inability of parents to save part of their funds for pension funds or weak planning for retirement (Aulia, Yuliati, & Muflikhati, 2019; Lusardi & Mitchell, 2005) thus, gives burdens to children financially.

According to data from BPS, 79.91% of elderly household financing sources come from working household members and only 0.67% come from investment. This shows that there are still many elderly people who are not ready financially to pay for their old age. According to (Prast & Soest, 2016) this occurs due to several factors such as the low involvement of parents in the issue of pension and in reading information about pension funds. Moreover, many of these age groups are not interested in pension funds and only prepare for these funds shortly before they retire.

Furthermore, (Prast & Soest, 2016) states that many retiring parents cannot predict their income after retirement and they also do not know how to improve their standard of living after retirement. This shows low financial literacy among this age group because financial knowledge is needed to make financial decisions about pension funds where individuals who have better financial knowledge have the possibility to be successful in planning their retirement (Lusardi & Mitchell, 2005).



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There is still very little literature that discusses whether a person's higher financial knowledge will affect their success in managing resources during retirement (Lusardi & Mitchell, 2014). Knowledge and ability about financial concepts in making effective and efficient financial decisions can be measured by the level of financial literacy. Therefore it is important to know the effect of the level of financial literacy on the planning ability of retirement. Many studies on financial literacy discuss the determinants of financial literacy in general or by age group. Several studies have found that financial literacy is closely related to education level, gender and age (Albeerdy & Gharleghi, 2015; Grohmann & Schoofs, 2018; Lusardi, Mitchell, & Curto, 2010; Morgan & Trinh, 2017; Potrich, Vieira, & Kirch, 2015; Sekar & Gowri, 2015).

Research from (Hasler & Lusardi, 2017; Hussain et al., 2015; Morgan & Trinh, 2017; Potrich et al., 2015; Sekar & Gowri, 2015) found that gender has a significant effect on literacy levels, wheremen have higher literacy level. So that if it is related to planning abilities, men have better planning abilities than women. However, research from (Bongini & Trivellato, 2015) did not find a gender gap in calculating the level of financial literacy at students, so it is necessary to examine whether there is an influence between gender and financial planning ability in old age (retirement).

Furthermore, research from (Lusardi et al., 2010; Morgan & Trinh, 2017; Potrich et al., 2015) found that age also plays an important role in a person's level of financial literacy. How a person's ability to make financial decisions changes with their age (Lusardi & Mitchell, 2014) so that the age factor also needs to be included in the research model. Therefore, this study seeks to see the influence of literacy levels, gender and age on the ability to plan for old age (retirement).

The contribution of this study includes adding to the financial literature on the characteristics and individual's ability to make financial planning for retirement. The research results are expected to be used as input for the government in reducing the number of sandwich generation.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The majority of studies on financial literacy discuss the determinants and effects of financial literacy. Research (Potrich et al., 2015) tries to explain financial literacy through socioeconomic and demographic variables. This study uses gender variables, marital status, number of dependents in the family, occupation, age, education level, parent's education, family income and income as independent variables. The results of this study found that gender, education level, income and family income have a positive influence on financial literacy. Meanwhile, the number of dependents in the family has a negative effect, artificially men who have no dependents and have a higher level of education, income and family income, tend to have a higher level of financial literacy.

Similar research was carried out by (Morgan & Pontines, 2014) where they examined determinants such as education level, income, age and occupation and their effects on financial literacy in Cambodia and Vietnam. This study found that education level, income, age and occupation had a significant influence on the level of financial literacy as well as financial literacy and education was also found to have a relationship with thrifty behavior and financial inclusion.

Furthermore, (Sekar & Gowri, 2015) examined financial literacy among generation Y employees and their ability to make financial decision. This study found that financial literacy among employees is very low and the factors that influence financial literacy are gender, age, income and education level. Some literature also discusses financial literacy according to age groups. (Lusardi et al., 2010) analyzed financial literacy among young people in America. This study found that financial literacy is still very low and is closely related to demographic variables and family financial sophistication. This finding is also supported by (Albeerdy & Gharleghi, 2015; Hermawan, Gunardi, Maula, & Agustine, 2019) which states that financial literacy in students is influenced by education and their attitudes towards money. However, research from (Bongini & Trivellato, 2015) found that there is no gender gap that affects financial literacy.



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(Lusardi & Mitchell, 2005) examined how workers make decisions to save, how they gather information to make decisions and whether they have the level of financial literacy needed to make these decisions. This study was conducted on the elderly age group in America and the results of the study found that many individuals in the age group of 50 years and over were still financially illiterate. This study also found that women with low financial knowledge and individuals with good financial knowledge are more likely to succeed in retirement planning.

In relation to retirement planning, there is very little research that discusses whether the higher one's financial knowledge, the more successful a person is in managing their resources at retirement (Lusardi & Mitchell, 2014). Research from (Aulia et al., 2019) analyzes the effect of financial literacy, old age financial planning and asset ownership on the financial well-being of retirement-age families. This study shows that the area of residence, education, financial literacy, planning and asset ownership positively have a positive influence on family financial health. Similar research was conducted by (Mendari & Soejono, 2019) which analyzed the determinants of financial planning and their relationship to financial literacy. The respondents of this study are lecturers, and the majority of them are aware of the importance of preparing a pension fund, but most of them do not have a retirement plan. Furthermore, the results of the study also found that there is a significant relationship between planning and literacy levels.

This study attempts to fill the research gap from several previous studies by analyzing the relationship between financial literacy levels and retirement planning. Furthermore, previous research on gender and literacy levels has not shown the same results. This indicates that this variable may have an influence on financial planning for retirement where women have lower literacy levels than men, so that their planning ability is predicted to be lower. Age is also a concern in this study because research related to the financial literacy level of the age group has a significant effect. When it comes to planning for retirement, it is possible that different age groups have different abilities with respect to planning abilities for retirement.

### 3. RESEARCH METHODOLOGY

This study used a survey method with a questionnaire. The type of data used is primary data in the form of financial literacy levels and financial planning ability for retirement. The survey was conducted in 2 ways, namely: (1) direct surveys, by giving physical questionnaires directly to respondents, and (2) online surveys, by providing questionnaires via email or social networks.

The sample of this research is workers who have not retired or workers who are still working even though they have retired. The sampling technique was carried out using purposive sampling method with criteria or judgment sampling. The criteria for the sample of this study were workers with an age range of 23-65 years.

#### Variable Measurement

The research questionnaire consisted of 3 parts, namely, respondent profile, measurement of financial literacy level and ability to plan for retirement. Data for gender and age variables will be obtained from the respondent's profile. Furthermore, to measure the level of financial literacy and the ability to plan for retirement, this study refers to research from (Lusardi & Mitchell, 2005). Where to measure the level of literacy, there are 3 questions about interest, inflation and diversification. The questions are as follows:

- If you have \$ 100 in your savings and an interest rate of 2% per annum. How much money would you have in your savings account if you left the money to grow: more than \$ 102, \$ 102, less than \$ 102



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- Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After 1 year, will you be able to buy more than, exactly the same as, or less than today for the money in your savings account?
- Do you think the following statements are true or false? "Buying a share of a company usually provides a safer return than a stock mutual fund."

To measure the ability of retirement planning, respondents will be assessed by the way they calculate their retirement planning. Questions regarding pension planning calculations are as follows:

- Have you ever tried to find out how much your household needs to save for retirement?
- Have you developed a plan for retirement savings?
- How often you can stick to this plan: always, partially big, rarely, or never?

### Data Analysis

This study is a descriptive-survey research aiming to know the extent of which people plan for their retirement and its relation to financial literacy.

## 4. RESULTS AND DISCUSSIONS

### Respondent Profile

**Table 1: Respondent Profile**

Item		Total	%
Gender	Woman	95	55%
	Man	78	45%
Age	<35 years old	61	35%
	36-45 years old	31	18%
	46-55 years old	42	24%
	>55 years old	39	23%
Education	Senior Highschool	4	2%
	Diploma	12	7%
	Undergraduate	58	34%
Marital Status	Master Degree	80	46%
	Doctoral Degree	19	11%
Marital Status	Married	151	87%
	Not Married	22	13%

Table 1 describes the profile of the respondents from this study. On the item gender (gender), the number of female respondents (55%) was slightly more than male (45%). Furthermore, in terms of age, most respondents were under 35 years old (35%) while the 36-45 year age category had the least number of respondents (18%). Nearly half of the respondents have a fairly high level of education, namely masters / masters (46%), while only 2% of respondents have a high school / vocational education. Finally, in terms of marital status, almost all respondents were married, amounting to 151 people (87%).

### Financial Literacy Pattern

**Table 2: Financial Literacy Pattern**

<b>Panel A. Proportion of Answers Regarding Financial Literacy Questions</b>				
	All correct	2 Correct	1 Correct	All Wrong
<b>Proportion</b>	5 (3%)	64 (37%)	65 (38%)	39 (23%)
<b>Panel B. Distribution of Answers to Financial Literacy Questions</b>				
	Correct	Wrong	Don't Know	



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<b>Time Value of Money</b>	51 (29%)	122 (71%)	
<b>Inflation</b>	107 (62%)	66 (38%)	
<b>Risks</b>	51 (29%)	51 (29%)	71 (41%)

Panel A of Table 2 describes the proportion of answers to financial literacy questions. It can be seen that only 5 people (3%) of the total respondents can answer the questions correctly. There is a very small difference between the number of respondents who can answer the question correctly as many as 2 questions (64 people) and 1 question (65 people). Meanwhile, there were 39 respondents who answered all the questions wrongly.

Furthermore, Panel B describes the distribution of answers to financial literacy questions where the level of a person's financial literacy is measured from 3 questions adopted from the study of (Lusardi & Mitchell, 2005). The question regarding the time value of money has the highest number of respondents who answered incorrectly, namely 122 respondents (71%) while only 51 respondents answered the question correctly. On other questions regarding inflation, the number of respondents who answered correctly was the highest compared to other questions, namely as many as 107 people (62%) and 66 respondents incorrectly answered that question. The last question, measures the respondent's knowledge of risk. The number of respondents who answered the questions correctly and wrongly was balanced, namely 51 people (29%) respectively. Meanwhile, 71 people (41%) chose the answer they did not know.

### Retirement Planning

Furthermore, this study tries to find out whether people do calculation on preparing their retirement. Table 3 and 4 below summarize the findings.

**Table 3: Proportion of Planners in the Sub-Group**

Have you ever tried to find out how much your household needs to save for retirement?				
<b>Yes</b>				<b>No</b>
56.06%				43.93%
Have you developed a plan for retirement savings?				
<b>Yes</b>				<b>No</b>
94.84%				2.89%
How often can you stick to this plan?				
<b>Always</b>	<b>Most of the time</b>	<b>Seldom</b>	<b>Never</b>	
45.65%	39.13%	14.13%	1.08%	

**Table 4: Proportion of Planners in the Full Sample**

Question	Sample Proportion
<b>Simple Planner</b>	56.06%
Answer Yes to the question "Find out how much to save for retirement"	
<b>Serious Planner</b>	53.2%
Answer Yes to the question "Developing a plan for retirement savings"	
<b>Successful planner</b>	45.1%
Answering Always / Mostly to "sticking to the plan" questions	



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Table 3 represents the answers to retirement planning questions meanwhile Table 4 shows the full sample proportion shown in Table 3. Based on the findings, about 56.06% of the respondents attempt to find out how much they need to save for retirement, we refer this people as simple planners. Furthermore, nearly most of these planners are able to developed plan for retirement savings and we refer this group of people as serious planners. However, only around 45.1% of this category are only able to stick to the plan, hence, we call them successfull planners.

**Table 5. Links between Planning, Respondent Characteristics and Financial Literacy**

<b>Panel A. Respondent Profile</b>			
<b>Item</b>		<b>Total</b>	<b>%</b>
Gender	Woman	45	57.7%
	Man	33	42.3%
Age	<35 years old	34	33.6%
	36-45 years old	12	15.4%
	46-55 years old	19	24.4%
	>55 years old	13	16.7%
Education	Senior Highschool	1	1.3%
	Diploma	6	7.7%
	Undergraduate	19	24.4%
	Master Degree	41	52.6%
	Doctoral Degree	11	14.1%

<b>Panel B. Distributions of Financial Literacy Questions</b>			
	<b>Correct</b>	<b>Wrong</b>	<b>Don't Know</b>
<b>Time Value of Money</b>	25	53	
<b>Inflation</b>	46	32	
<b>Risks</b>	29	29	20

The data from Table 4 are then examined to see the profile of those categorized as successful planners. Table 5 summarizes the findings. It can be seen from Panel A that the number of women who are categorized as succesfull planners is higher than men. It could be argued that most women in this research are working indicating that they may make financial decision in their household. This is supported by (Asandimitra, Aji, & Kautsar, 2019) that states working women may have high financial literacy and have more control on financial decision. Furthermore, it is surpsring that the age group that has the least number of succesful planners is 36-45 years old that we still consider as productive age group. Most successful planners are in fact from younger generation. Therefore, making assumption that the older the person get the more likely they will be better in planning is unlikely. This might be supported by the study of (Prast & Soest, 2016) that many people are not interested in planning for their retirement.

Based on the education, we can see that most people that are grouped under succesfull planners have pursue higher education. It can be seen that nearly 53% of the successful planners hold master degree. This indicates that the higher the education of the person, there is a high likeliness that they will succeed in retirement planning. Panel B from Table 5 describes the distributions of financial literacy questions among those categorized as successful planners. We used this to see the association between planning and financial literacy rather than the causal relationship. It can be seen that, most of the planners answered question on time value of money wrongly.



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### 5. CONCLUSION

This study tries to see the characteristics of individual and financial literacy as well as its relation to retirement planning. It can be concluded that women are tend to be successful in planning for retirement. There is also trend in education meaning that the higher the education there is a higher likeliness that the individual will succeed in planning. Furthermore, we are fail to see the trend in the age group. We are enable to see whether the older and the closer someone to the retirement age, the better they will be in planning their retirement.

### LIMITATION AND STUDY FORWARD

This study only employ descriptive analysis to see the association between characteristics of individual and financial literacy as well as retirement planning. Further studies are suggested to examine the causal relationship between the variables.

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## THE EFFECT OF GOOD CORPORATE GOVERNANCE, INTELLECTUAL CAPITAL AND FINANCIAL PERFORMANCE OF CORPORATE SOCIAL RESPONSIBILITY

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### Abstract

**Purpose:** The objective of this study is to examine the influence of good corporate governance, intellectual capital and financial performance towards corporate social responsibility (CSR) disclosure practices in ASEAN Islamic Banks.

**Research Methodology:** The data analysis using panel data regression by Eviews. Samples were taken from 22 Islamic bank in ASEAN, consist of 10 Indonesian Islamic banks, 10 Malaysia Islamic banks, 1 Brunei darussalam Islamic banks and 1 Philippines Islamic banks. The research period from 2013-2017. CSR disclosures as dependent variable, measured by content analysis. While, independent variables including: Sharia Supervisory Board (SSB) was used as an indicator of good corporate governance, Intellectual Capital measured by Human Capital Efficiency (HCE) ratio, Capital Employee Efficiency (CCE) ratio and Structure Capital Efficiency (SCE) ratio. In addition, Financial Performance measured by ROA and ROE ratio, then Size and Leverage used as control variable.

**Results:** The results obtained that SSB, SCE and financial performance had not significant influence to CSR disclosures. However, HCE, CCE, size and leverage had significant influence to CSR disclosure practices in ASEAN Islamic Banking.

**Limitations:** The limitation of this study are sample is relatively small, this happens because, not all countries in Southeast Asia have Islamic banks. Furthermore, the independent variables used in this study do not adequately describe company characteristics because it is proven that only HCE and CCE have an effect on CSR. Thus, needed measurement tool which is capable of reflecting the CSR mechanism in Islamic bank.

**Keywords:** *good corporate governance, intellectual capital, financial performance, size and leverage*

### 1. INTRODUCTION

Lately, the attention of stakeholders to a company is not only limited to the assessment of how much profit a company can make, but also on how the company is responsible for social, economic and environmental conditions. Previously, most companies only focused on achieving profits, without paying attention to the impact of the business processes that result. This has caused many companies to be involved in social and environmental conflicts. Realizing this has encouraged many companies to start implementing social responsibility disclosures for the activities carried out by the company. Disclosure of corporate social responsibility is also intended as a corporate business strategy.

Corporate social responsibility (CSR) is an ongoing commitment by the business community to act ethically and contribute to the economic development of the local community or the wider community, together with improving the living standards of workers and their families, (Wibisono, 2007). The more open the company is in conveying forms of social responsibility (CSR) distribution, the better the company's image. According to Musibah et al., (2014) Corporate Social Responsibility (CSR) can be influenced by several factors, including corporate governance.



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Nasution and Setiawan (2007) state that the concept of corporate governance is proposed for the sake of improving company performance through supervision or monitoring of management performance and ensuring management accountability to stakeholders by basing it on the regulatory framework. In all companies, the concept of corporate governance is one of the keys to the success of the company. Especially in the sharia banking industry, corporate governance is a concept used to ensure that all transactions, practices and activities are in accordance with sharia principles. Thus the concept of corporate governance is a concept that plays a role in building and maintaining public trust.

The application of the concept of good and effective corporate governance can direct efficiency in decision making and corporate actions. So that when a company can carry out its activities efficiently and appropriately it will affect the profits to be obtained by the company. Companies that get profits in accordance with the target, of course, in addition to meeting its obligations to investors, the company will also consider its social responsibility. Especially for the sharia industry, where the main purpose of the sharia industry is not only to make a profit but also to be able to provide benefits for the people.

Similar to corporate governance, today many companies are starting to realize that in addition to applying the right concept, companies must also have potential economic resources. The source of economic value is not only in the form of material goods, but companies can also benefit from intangible assets such as intellectual capital (IC). Brooking (2015, in Jetmiko, 2015) states that intellectual capital (IC) is a liaison created or provided to unify intangible assets from the market, intellectual property, human-centred, and infrastructure that enable companies to operate or function.

IC becomes an analyzing tool that can be used as a benchmark used to assess a company. The existence of IC is considered to have a significant influence on the company's financial performance. Companies that have good and efficient governance and are supported by ICs owned by the company, can have a positive influence on company performance, thus if the company has good enough performance, it can also affect Corporate Social Responsibility (CSR).

Based on the background described above, this study seeks to examine the effect of corporate governance, intellectual capital and financial performance on Corporate Social Responsibility in the Islamic banking industry. Financial performance is a benchmark in assessing company stability. Companies that have good corporate governance and make maximum use of intellectual capital are suspected of having an influence on the results of the performance to be achieved. When the company's financial performance is good, not only investors can enjoy the benefits, but these profits can also be distributed to social interests. This research is important to do, it tries to find out the influence of CG, IC and financial performance on CSR. On the other hand, this study also seeks to find out how the shape and value of CSR from the Islamic banking industry in several countries are included in the Southeast Asia region.

## 2. LITERATUR REVIEW

### *Corporate governance*

Corporate governance is a mechanism that can integrate the interests of many parties such as shareholders, managers, creditors, government and employees. Corporate governance is a concept that enables companies to be able to manage companies more transparently. The proposed CG concept aims to create a conducive environment that allows companies to be able to maintain their long-term capital, maintain investor confidence and can direct the effective use of capital. In the Sharia industry, corporate governance mechanisms are slightly different. Especially in Islamic banking where in the corporate governance mechanism there is an additional independent board, namely the Sharia supervisory board. Sharia Supervisory Board (DPS) is an affiliated body that is placed by the National Sharia Board (DSN), where one of the responsibilities of the Sharia Supervisory Board is to ensure and guarantee that activities and transactions in sharia banking are in accordance with rules and principles sharia.



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### *Intellectual Capital*

Various definitions have been given in explaining intellectual capital. Generally intellectual capital is defined as intangible capital relating to all forms of knowledge and human experience and the technology used. Furthermore, Edvinsson & Sullivan (1996) defines intellectual capital as knowledge that can be converted into value. Saint-Onge (1996) divides intellectual capital into three parts namely human capital, structural capital, and customer capital. Human capital is considered to have the biggest role and is the most important intangible asset in an organization. Human capital itself includes the knowledge, competencies, experience, skills and talents of human resources in an organization. Meanwhile, structural capital is a complement and support of human capital. Furthermore, relational capital explains the company's relationship with customers and other networks such as suppliers. Resource based theory, explains that the use of IC effectively and efficiently can improve the company's financial performance.

### *Financial Performance*

Strengths and weaknesses of an organization can be shown from the performance achieved. In a company or organization, performance measurement can be based on two information, namely financial and non-financial information. Financial performance is a measurement of performance in a company or organization based on financial information. Financial performance is the result of decisions made by management that are made continuously to achieve certain goals of the company. In banking companies, financial performance shows a picture of work performance in the financial sector, which includes aspects of raising and channeling funds. One way to measure financial performance is to analyze financial statements using financial ratios.

### *Corporate Social Responsibility*

Corporate social responsibility is defined as an sustainability commitment by the business community to act ethically and contribute to the development of the economy, the local community or the wider community and the environment, along with improving the living standards of workers and their families (Wibisono, 2007). Gray et. al., (1987) states that corporate social reporting is a process of communicating social and environmental effects on corporate economic actions in certain groups in society and in society as a whole. Anwar et. al., (2010) said that the disclosure of CSR can strengthen the company's image and become one of the considerations considered by investors in investing their capital.

### *Good Corporate Governance dan Corporate Social Responsibility*

Good corporate governance in Islam leads to the existence and compliance of implicit contracts with God and explicit contracts with humans (Rahmatina Kasri, 2009). In carrying out its role, GCG strives to maintain balance, which seeks to realize the company's goals by meeting the needs of all stakeholders while still remembering God in every implementation. In general, GCG seeks to prioritize companies by increasing competitiveness in order to produce good financial performance. The concept of GCG itself is in line with stakeholder theory which has the view that maximizing the profits of shareholders is not the only goal to be achieved, but the concern is how the interests of the stakeholders must be equally respected. The goal itself can be done by taking into account the social responsibilities carried out by the company. By fulfilling social responsibility, companies can increase trustworthiness and strengthen good relations with stakeholders, thus companies can increase their attractiveness to investors (Hancock, 2005).

Based on the previous explanation, GCG is suspected to have a relationship with CSR in the Islamic banking industry. Therefore, the hypothesis as follows:

Hypothesis 1: There is relationship between Supervisory Shariah Board (SSB) and Corporate Social Responsibility (CSR)

### *Intellectual Capital (IC) dan Corporate Social Responsibility (CSR)*

Intellectual capital (IC) is an intangible asset that is valuable and is considered to provide added value for the company. Barney (1991) states that IC is a corporate asset that can create sustainable competitive



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advantage. Companies that manage and use ICs can encourage innovation, and stimulate creativity and competitive advantage, which in turn can make the company superior to other companies and contribute greatly to the progress of the company.

One of IC's advantages is having competent and insightful resources. These resources generally try to increase the value of the company by making various efforts. One way is to carry out social responsibility correctly and consistently. Most stakeholders are now more concerned with companies that carry out CSR consistently, so that through CSR activities the value of the company will increase. This research is supported by Barnett (2007) and McWilliams, et al., (2006) who say that intangible assets play a key role in CSR effects on companies.

Based on the previous explanation, the hypothesis as follows:

Hypothesis 2: There is relationship between *Human Capital Efficiency* (HCE) and Corporate Social Responsibility (CSR)

Hypothesis 3: There is relationship between *Capital Employed Efficiency* (CCE) and Corporate Social Responsibility (CSR)

Hypothesis 4: There is relationship between *Structural Capital Efficiency* (SCE) and Corporate Social Responsibility (CSR)

### ***Financial Performance dan Corporate Social Responsibility (CSR)***

Financial performance is the performance that has been achieved by the company in a certain period of time stated in the financial statements. In general, the company's main goal is to achieve the highest profits. However, lately companies can no longer plan profits as the main goal. At present stakeholder attention is not only shown to companies that have high profits, many stakeholders have begun to be attracted to companies that are willing and able to report how they are responsible for the social environment and the environment. According to previous literature namely Donaldson and Preston, 1995; Freeman, 1984 found evidence that Corporate Social Responsibility (CSR) has a positive relationship with financial performance. It is suspected that the relationship between financial performance and CSR is because companies that have good financial performance tend to be consistent in carrying out their social obligations. Similar research was also carried out by Balabanis, G., et al., (1998) who studied the effects of financial performance indicators such as return on equity and return on assets. Balabanis, G, et al., (1998) found a positive relationship between corporate social responsibility and financial performance indicators.

Based on the previous explanation, the hypothesis as follows:

Hypothesis 5: There is relationship between *Return on Assets* (ROA) and Corporate Social Responsibility (CSR)

Hypothesis 6: There is relationship between *Return on Equity* (ROE) and Corporate Social Responsibility (CSR)

## **3. RESEARCH METODOLOGY**

### ***Samples and data***

The data used in this study are secondary data in the form of annual reports, reports of corporate governance and disclosure of corporate social responsibility obtained from the website addresses of each bank. While the population is all Sharia Commercial Banks in Southeast Asian countries in 2013-2017. Data is collected by purposive sampling method with the criteria of all Sharia commercial banks that publish annual reports, GCG reports and social disclosures in which there are data needed in research.



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## Variable definition

### Dependent Variable

#### 1. Corporate Social Responsibility

Corporate social responsibility is a form of corporate social responsibility activity, to act ethically in contributing to social and natural environment. In this study the measurement of CSR variables refers to the study of Ji-ming & Hao-bai (2007) which is measured using the sum of all costs incurred for social responsibility activities by Islamic banks.

### Independent Variables

#### 1. Good Corporate Governance (SSB)

Corporate governance is a concept that enables companies to be able to manage companies more transparently. In Islamic banking, there is an additional independent board, namely the Sharia supervisory board which is responsible for conducting directives, providing consultations, evaluating and supervising the activities of Islamic banks with the aim of ensuring compliance with Islamic banking business activities. In this study, the Sharia Supervisory Board was measured using the IG-Score calculation that refers to the research of Farook et al., (2011).

**Tabel 1: IG-Score Calculation Model**

SSB	The existence of SSB	1 if the bank has SSB, 0 if not..
NUM	The number of SSB	1 if the bank has 5 or more members, 0 if it is less than that.
CROSS	The presence of cross-member SSB	1 if there is 0, if it does not exist
PHD	Doctoral qualifications for SSB members	1 if there are SSB members who have doctor qualifications, 0 if none.
REP	The existence of reputable experts in SSB	1 if present, 0 if none.

#### 2. Intellectual capital

Intellectual capital is intangible assets in a company that are considered as a knowledge that can be converted into a value. IC is measured using three main constructs that refer to the research of Deep and Narwal (2013) which include:

##### 1. Human Capital Efficiency (HCE)

Human capital is considered as the most important intangible asset in an organization. Human capital is measured using efficiency by estimating the VAHU ratio. Human capital is calculated using the total cost of salaries and wages of employees. VAHU is calculated using the following formula:

$$VAHU = \frac{VA}{HU}$$

##### 2. Capital Employed Efficiency (CEE)

The IC construct is then calculated using the efficiency of employed capital, by estimating the VACA ratio. Where employed capital is obtained from employed capital of the firm. VACA is calculated using the following formula:

$$VACA = \frac{VA}{CA}$$



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### 3. *Structural Capital Efficiency (SCE)*

Structural Capital Efficiency (SCE) is a part that supports human resources. Structural capital includes databases and patents, SCE is calculated using the following formula:

$$SCE = VA - HCE$$

Where:

VA : Value added that can be calculated by the formula to find the difference between OUT (output) and IN (input)

OUT : The total amount of business revenue the company has

IN : All company operating expenses except employee expenses

### 3. Financial performance

Financial performance shows a picture of work performance in the financial sector which includes aspects of the collection and distribution of funds. In this study, financial performance variables are measured using profitability using two indicators, namely:

#### 1) *Return on Asset (ROA)*

*Return on Asset (ROA)* is calculated using the following formula:

$$ROA = \frac{\text{Net Profit}}{\text{Total Asset}}$$

#### 2) *Return on Equity (ROE)*

*Return on Equity (ROE)* is calculated using the following formula:

$$ROE = \frac{\text{Laba Bersih}}{\text{Equitas}}$$

### **Control Variables**

#### 1. Size

The size of the bank reflects the size of the total assets owned by the company. SIZE is calculated using the following formula:

$$SIZE = \text{Natural Logarithms (Total Assets)}$$

#### 2. Leverage

Leverage is a ratio that shows the amount of debt used by a company to finance its operating activities. In this study leverage is measured using the ratio of total liabilities divided by total assets that refer to the study (Musibah and Alfattani, 2014).

### ***Empirical model***

Hypothesis testing is done by panel data regression analysis with the following research models:

$$CSR_{it} = \beta_0 + \beta_1 SSBE_{it} + \beta_2 HCE_{it} + \beta_3 CCE_{it} + \beta_4 SCE_{it} + \beta_5 ROE_{it} + \beta_6 ROA_{it} + \beta_7 Size_{it} + \beta_8 Lev_{it} + e$$

Explanation:

Y = *Corporate Social Responsibility*



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$X_1$  = Syariah Supervisory Board Effectiveness

$X_2$  = Human Capital Efficiency

$X_3$  = Capital Employed Efficiency

$X_4$  = Structural Capital Efficiency

$X_5$  = Return on Equity

$X_6$  = Return on Assets

$X_7$  = Size

$X_8$  = Leverage

$\nu_i$  = Bank specific coefficient

$e_{it}$  = Error term

### 4. RESULTS AND DISCUSSION

#### *Data collection*

This study uses a purposive sampling method so that there are restrictions on the sample used. The data obtained for the sample of Islamic Banks that met the criteria for sampling for the country of Indonesia were (10), Islamic Banks in Malaysia by (10), Islamic Banks in Brunei Darussalam by (1), and Islamic Banks in the Philippines by (1). The estimation results from panel data regression analysis are shown in table.

**Tabel 2: The Result of Regression Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.168	1.768	6.882	0.000
SSB	-0.602	0.415	-1.451	0.150
HCE	-0.336	0.114	-2.329	0.021
CCE	2.710	1.138	2.048	0.043
SCE	0.167	0.099	1.687	0.094
ROA	0.200	0.138	1.450	0.150
ROE	-0.042	0.029	-1.456	0.148
SIZE	0.356	0.068	5.214	0.000
LEVERAGE	0.187	0.064	2.912	0.004

#### *Hypothesis Testing and Discussion*

##### *Good corporate governance and Corporate social responsibility*

Based on the results of data analysis obtained significance value of  $SSB = 0.150 > 0.05$ , which means that the SSB variable has no effect on the CSR variable. The insignificance of the SSB variable to the CSR variable explains that the Sharia supervisory board cannot yet be a key role in encouraging companies to carry out social responsibility. This is likely because DPS is more focused on their duties in supervising activities and transactions in Sharia banks so that SSB is making more effort in ensuring the implementation of Sharia rules and principles while for the form of corporate social responsibility towards the social and natural environment, the role of SSB has not been maximized. The results of this study contradict the results of the study of Musibah and Alfattani (2014) which states that there is a relationship between the effectiveness of SSB on the social responsibility of Islamic banks.



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### *Intellectual Capital and Corporate social responsibility*

Based on the results of the data analysis, the significance value of HCE = 0.021 < 0.05, which means that the HCE variable influences the CSR variable. The significance of the HCE variable to the CSR variable shows that the knowledge, competencies, experience, skills and talents of human resources owned by the company influence the company to be socially responsible. They know that by carrying out social responsibility the company's value will be better. In addition, most stakeholders prefer companies that want to carry out social responsibility.

The results for intellectual capital measured by CCE show a significance value = 0.043 < 0.05, which means that the CCE variable has a positive effect on the CSR variable. The results of this study support the study of Musibah and Alfattani (2014) which states that the more banks in implementing the efficiency of tangible assets will be more consistent in carrying out social responsibility. CEE shows the amount of value-added intangible assets, companies that have the ability to manage tangible assets tend to be more sensitive to social responsibility. Furthermore, the results for intellectual capital as measured by SCE show a significance value = 0.094 > 0.05, which means that the intellectual capital variable related to structural capital (SCE) has no effect on the CSR of Islamic banks. These results are not in line with the initial hypothesis which states that the SCE variable can have a positive effect on CSR. The results of this study also do not support the research of Musibah and Alfattani (2014) which states that the efficiency of structural capital, that is, everything that supports human capital such as databases, systems, procedures, organizations, and culture cannot encourage companies to carry out social responsibility. Thus the efficiency of structural capital is not related to whether CSR will be carried out or not.

### *Financial Performance and Corporate social responsibility*

Based on the results of the data analysis, the significance value of the financial performance variable is measured using the ROA ratio = 0.150 > 0.05, while the financial performance variable is measured using the ROE ratio = 0.148 > 0.05. This shows that the financial performance variable has no effect on the CSR variable. Influence of financial performance variables indicates that whether a company's financial performance is good or not does affect the company to do its social responsibility. This is likely due to the behaviour of the management of each company. In fact, companies with good financial performance may prefer to use their own savings to expand or distribute dividends to stakeholders rather than carrying out their social responsibilities. Then for companies with poor financial performance, they will focus more on improving their financial performance than carrying out social responsibility.

### *Size and Corporate social responsibility*

Based on the results of data analysis obtained significance values for the control variable size = 0,000 < 0.05, which means that the variable size has a positive effect on CSR variables. The effect of bank size on CSR is probably because the size of the bank illustrates the total assets owned by the company. The size of the total assets owned by the company can reflect the level of reliability of a company. The greater the size of the bank, the greater the company's social responsibility towards the social and natural environment.

### *Leverage and Corporate social responsibility*

Based on the results of data analysis, the significance value for the control variable leverage = 0.004 < 0.05, which means that the variable leverage has a positive effect on CSR variables. Leverage shows the total debt that the company has. In general, companies with high debt levels tend to focus more on being able to fulfil their obligations to creditors. But based on the results of the test shows that the variable leverage affects the variable CSR. This is likely because social responsibility is an added value for companies that implement it, by doing CSR creditors will be more interested in giving credit to companies that carry out CSR.

## 5. CONCLUSION

Currently, most of the stakeholders are more interested in companies that are not only profit-oriented. Stakeholders behave this way because a healthy and good company is a company that can provide benefits not only for itself but also can provide benefits to other parties such as the community and the



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environment. This has encouraged many companies to begin to open up with their accountability reports. Previous studies revealed that CSR carried out by companies is influenced by several key factors such as good corporate governance, intellectual capital and financial performance. This research attempts to prove the theory. However, the results of this study indicate that of the three key factors tested, only IC has a major influence on the company's CSR implementation.

Variable intellectual capital measured using the HCE and CCE variables has a significant positive effect but has no significance for intellectual capital variables measured using the SCE ratio. Furthermore, the results of the control variable testing show that size and leverage have a significant effect on CSR variables. Intellectual capital supported by the variable size and leverage shows the effect on corporate CSR so that with IC support can encourage companies to excel in global competition, thus the implication for companies is to increase company value (share price).

This research contributes to the empirical literature on how disclosure and factors that influence CSR in Islamic banking in Southeast Asian countries, which are currently less attention. Therefore, this study has many limitations. The main limitation of this study is the limited number of Islamic banking in the Southeast Asian country. Until 2019 only two countries in Southeast Asia had more than 10 Islamic banking, namely Indonesia and Malaysia. Some countries do not even have Islamic banking. Thus, further research is expected to develop this research by adding research samples from several different countries not limited to countries in Asia.

### LIMITATIONS AND STUDY FORWARD

This study has several limitations, there are, the sample obtained is relatively small, this happens because, not all countries in Southeast Asia have Islamic banks. Furthermore, the independent variables used in this study do not adequately describe company characteristics because it is proven that only HCE and CCE have an effect on CSR. Future research may extend the sample to all bank and may extend the region of research and then added measurement tool which is capable of reflecting the CSR mechanism in Islamic bank.

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## ROLE OF MINING AS A BASIS SECTOR IN SOUTH SUMATRA

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### Abstract

This study aims to see the influence of the mining sector on economic growth in districts/cities and South Sumatra. The data used is secondary data sourced from the Central Statistics Agency of South Sumatra and districts/cities of South Sumatra in 2010-2018. The method used is Location Quotient analysis, and panel data regression. Result *Location Quotient Statistics* shows six districts whose mining sector is based, namely Muara Enim Regency, Lahat Regency, Musi Rawas Regency, Banyuasin Regency, PALI Regency, and North Musi Rawas Regency. *Dynamic Location Quotient* There is nine districts/cities in the future whose mining sector has the potential to excel, namely Ogan Komering Ilir Regency (OKI), Muara Enim Regency, Ogan Komering Ulu Selatan Regency, Ogan Ilir Regency, Empat Lawang Regency, Palembang City, Prabumulih City, Pagaralam City, and Lubuk Linggau City. The model used in this research is the Fixed Effect model. Based on the estimation results, it shows that mining does not have an insignificant effect on South Sumatra, but the mining sector does have an effect on the district/city level in South Sumatra. Thus, there is no resource curse in the districts/cities of South Sumatra.

**Keywords:** *Mining, economic growth. Curse of Natural Resources, South Sumatra*

### 1. INTRODUCTION

Economic growth in various regions in South Sumatra is not the same, this is due to differences in economic growth in the area, natural resources owned, levels of community welfare, and policies that are very influential in the regional development process. Therefore, each region must be able to identify and understand the advantages and potentials of the region appropriately so that the objectives of economic development are appropriate to the problems and characteristics of each region. According to Djakpermana (2010) the level of development of a region and a measure of the success of a region's development from various economic sectors indirectly describe the rate of economic growth or an increase in the Gross Regional Domestic Product of an area.

The economy of the people in an area is said to experience growth if the growth of the Gross Regional Domestic Product (GRDP) according to constant prices continues to increase. Gross Regional Domestic Product (PDRB) is an indicator to measure the level of welfare in an area. The higher the value of the Gross Regional Domestic Product (PDRB) means that the high level of economic growth in an area is progressing. The level of community welfare can also be measured by the level of economic growth by optimally utilizing the potential of its resources.

From 2014 to 2018 there was a continuous increase in the value of the Gross Regional Domestic Product (PDRB) in South Sumatra Province. In 2018 the Gross Regional Domestic Product (PDRB) of South Sumatra at constant prices reached Rp. 298,569,335.15 million rupiah. Most of the economic growth in South Sumatra Province is contributed by the primary sector, namely the mining sector, which contributes 22.11 percent to the creation of the Gross Regional Domestic Product (GRDP). In the same period, the agricultural sector contributed 16.49 percent to the Gross Regional Domestic Product (GRDP). Thus, it can be said that the role of the primary sector still dominates the economy of South Sumatra.



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**Table 1: Gross Regional Domestic Product Over 2010 Constant Prices by Business Field in South Sumatra Province (Million Rupiah), 2014--2018**

BUSINESS FIELD	2014	2015	2016	2017 *	2018 **
Agriculture, Forestry and Fisheries	46,612,030.0	48,287,680.6	48,942,642.8	49,518,878.4	50,587,558.9
Mining and excavation	53,234,720.9	55,330,266.7	57,303,521.2	60,398,350.3	66,000,208.6
Processing industry	44,653,619.0	47,066,752.4	49,998,125.1	53,270,826.3	56,205,636.3
Procurement of Electricity and Gas	224,094.5	232,288.1	272,531.4	286,980.2	312,381.5
Water Supply, Waste Management, Construction	277,892.2	296,429.3	300,907.6	313,343.8	338,297.9
Wholesale and Retail Trade;	28,374,729.6	28,393,621.4	30,862,675.8	33,616,272.1	35,496,014.1
Transportation and Warehousing	23,675,111.7	24,520,210.3	26,650,805.5	28,699,601.0	31,020,239.6
Provision of Accommodation and Food and Drink	4,384,744.0	4,813,177.7	5,150,738.4	5,581,775.8	5,992,538.5
Information and Communication	2,752,586.4	3,024,309.7	3,331,901.8	3,603,378.3	4,077,321.0
Financial Services and Insurance	7,380,635.1	8,021,408.2	8,572,556.1	9,294,877.7	1,0013,076.6
Real Estate	6,374,809.6	6,651,744.5	7,139,397.8	7,333,382.7	7,464,184.3
Company Services	6,873,106.5	7,360,891.7	7,982,190.4	8,567,363.9	9,248,358.9
Government administration, Defense and Social Security	253,966.7	265,172.8	282,412.2	304,817.6	333,793.6
Compulsory Education Services	7,762,397.6	8,576,393.2	8,584,346.6	9,133,732.6	9,380,103.3
Health Services and Social Activities	6,863,227.5	7,405,478.6	7,612,253.0	7,628,058.4	7,835,390.4
Other services	1,637,904.3	1,757,347.9	1,779,203.0	1,835,973.7	1,882,929.3
<b>Gross domestic product</b>	<b>243,297,771.50</b>	<b>254,044,875.63</b>	<b>266,857,400.76</b>	<b>281,571,013.06</b>	<b>298,569,335.15</b>

Source: Central Statistics Agency, South Sumatra Province in 2019 Figures

South Sumatra has abundant natural resources, one of which is mineral resources, namely mining. The mining sector is one of the largest contributors to the province of South Sumatra because the mining sector provides energy resources that are indispensable for the economic growth of South Sumatra. The mining sector also supports the economy of South Sumatra. Mahonye & Mandishara (2015) stated that real mining growth is an important factor in economic growth. Therefore, it can be seen that the mining sector has a big influence on the economy of South Sumatra based on the value of the Gross Regional Domestic Product (GRDP).

Mining Oil, natural gas, and coal are the largest natural resources owned by South Sumatra Province, which is the largest contributor. The greater the GRDP value produced by a district/city, the greater the contribution of the district/city in the formation of provincial GRDP, which indicates a better level of natural resource wealth.



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The largest level of contribution from the mining sector from year to year is contributed by the Musi Banyuasin Regency which has a lot of natural resources, especially oil and gas mining. The contribution given by oil and gas mining in Musi Banyuasin Regency reaches more than 50 percent, which is 60.01 percent of the total contribution of the mining sector in South Sumatra Province. The district of Musi Banyuasin relies on its economy in the mining and quarrying sector because the main source of its economy is supported by the mining and quarrying sector. Furthermore, Muara Enim Regency was 59.43 percent. Muara Enim Regency is one of the areas that have the potential for mining and quarrying business in South Sumatra Province, besides that Muara Enim Regency has oil and gas and coal resources. The next biggest contributions were Pali Regency, Lahat Regency, and Musi Rawas Regency respectively. The three districts have a similar economic structure. In general, mining and excavation business fields have an important role in the regional economy of each of these areas (BPS South Sumatra, 2019). The smallest Gross Regional Domestic Product (GRDP) was achieved by the City of Pagaralam. The city of Pagaralam is supported by the agricultural, forestry, and fishery sectors. The smallest Gross Regional Domestic Product (GRDP) was achieved by the City of Pagaralam. The city of Pagaralam is supported by the agricultural, forestry, and fishery sectors. The smallest Gross Regional Domestic Product (GRDP) was achieved by the City of Pagaralam. The city of Pagaralam is supported by the agricultural, forestry, and fishery sectors.

Fahriza & Hartono (2018) stated that the contribution of the oil and gas subsector to regional economic growth was in a positive direction. This means that the greater the contribution of oil and gas to the Gross Regional Domestic Product, the relatively higher the economic growth will be. The contribution of the oil and gas subsector in the mining and quarrying sector increases economic growth.

Considering that the mining sector is a non-renewable natural resource (a non-renewable resource), this mineral resource will gradually decline in quality and potential and its impact on economic development is decreasing. Based on the above background, this research discusses; (1) is the district/city mining sector a base sector?; (2) how is the influence of the mining sector on economic growth in districts/cities?; (3) how is the influence of the mining sector on economic growth in South Sumatra?

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Economic Growth Theory

The theory of pure export base was first developed by Tiebout. The economic base theory holds that the economic growth of a region is determined by the amount of increase in exports in that area. Economic activities are divided into the basis and non-basic activities. Basic activities are activities that encourage regional economic growth (Tarigan, 2005).

Non-base sector activities are sectors that depend on developments that occur on a basis sector will lead to changes in investment and consumption in the regions. In other words, the two sectors have a relationship with demand from outside the region. The base sector is related directly, while the non-base sector is related indirectly. If demand from outside increases, the base sector will increase and will also develop the non-base sector. Every growth in basic and non-basic sectors has a dual effect on the regional economy (Adisasmita, 2005).

The formulation of the economic base model, the Gross Regional Domestic Product (GRDP) of a region that is grouped into basic sectors and non-basic sectors. The base sector is a sector that supports the economy of a region. Thus an economy is formulated as follows:

$$Y = B + S \quad 2.1$$

Where, Y = GRDP, B is the base sector and S is the non-base sector.



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The activities of the non-base sector are highly dependent on the development of the base sector so that the equation is as follows:

$$S = a_0 + a_1 Y \quad 2.2$$

Where  $a_0$  and  $a_1$  are constants. If equations 2.1 and 2.2 are combined then:

$$Y = [a_0 / (1 - a_1)] + [1 / (1 - a_1)] B \text{ or } Y = [a_0 / (1 - a_1)] + [B / (1 - a_1)] \quad 2.3$$

For analysis purposes, the economic growth equation is as follows:

$$\Delta Y = [a_0 / (1 - a_1)] + [1 / (1 - a_1)] \Delta B \quad 2.4$$

Where  $\Delta Y$  is an increase in regional Gross Regional Domestic Product (GRDP) and  $\Delta B$  is an increase in the sector basis.

John P. Blair (1991) in Sjafrizal (2018) argues that the export base model is formulated using what is called the formal income model. In this model, the region's Gross Regional Domestic Product (GRDP) is shown in the equation:

$$Y = C + MI - MO \quad 2.5$$

Where  $Y$  is the constant regional Gross Regional Domestic Product (GRDP),  $C$  is consumption,  $MI$  is the inflow of money due to export activities and  $MO$  is the outflow of money due to import activities

Because the discussion is related to growth which is an increase in added value to the production of food goods and services, an equation in the form of change  $\Delta$  is made as follows:

$$\Delta y = [1 / (1 - b + i)] \Delta E_0 \text{ or } \Delta Y = k \Delta E_0 \quad 2.6$$

Where  $k = 1 / (1 - b + i)$  is a multiplier coefficient that can show the multiple effects of changes in exports on regional economic activity.

From these two equations, it can be concluded that the economic growth of a region is strongly influenced by the growth of the base sector in that area and that economic growth is positively related to the increase in the activities of the basic sector in that area. Changes in the economic growth of a region are largely determined by changes in the value of exports. Meanwhile, the effect can be determined by the magnitude of the multiplier coefficient owned by the region.

Economic growth in various regions is determined by several main factors, namely 1). Natural resources owned, 2). Availability of capital to process natural resources, 3). Availability of facilities and infrastructure (infrastructure) such as transportation and communication. 4). The existence of the right technology to manage resources. 5). The availability of quality and human resource skills for technology management. The availability of abundant natural resources is very good for supporting development. However, in developing countries, the availability of natural resources is often underutilized as well as possible, meaning that the use is not properly directed, it is impossible for the country concerned to experience economic progress as expected (Rapanna & Sukarno, 2017).

Solow in the theory of economic growth, explains that technology has an important role in driving the economic conditions of a region. Technology can be a "supplement" to create prosperity in society. One of the things to encourage economic conditions is to prioritize the leading or potential sectors that are owned by the regions. Thus able to create independence in the area. One of the leading and potential sectors is natural resources (Sukirno, 2013).

According to Adam Smith, in economic growth, there are the main elements of a country's production system, namely available resources, human resources, and owned capital stock. According to Adam



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Smith, natural resources are a container for community production activities. The amount of natural resources available is the maximum limit for a country's growth. This means that if these resources are not fully utilized, the population and capital stock will play a role in growth. But growth can stop when all-natural resources are fully used (Arsyad, 2010).

### Natural Resource Curse Theory

The resource curse was first proposed by Richard M. Auty. According to Auty (1993) the curse of natural resources, namely the relationship between natural resource management and political instability in a country with abundant resource wealth. Countries that will be rich in natural resources can exploit their natural resources to achieve higher economic growth, often worse off than countries with small natural resources. According to Humphreys, Sachs, & Stiglitz (2007) explained, the resource curse is the failure of countries rich in natural resources to take advantage of the natural resources owned by these countries.

Paradoxically, despite the high hopes for wealth and vast opportunities that accompany the discovery and extraction of oil and natural resources, such gifts often become an obstacle to development.

The theory of the natural resource curse states that regions that have abundant natural resources, especially non-renewable natural resources such as mining and excavation, tend to have slow economic growth compared to countries with limited natural resources.

The abundance of natural resources in an area should be an advantage in an area to develop economic potential, but the fact is that in some regions it slows down the regional economy. The relationship between natural resource abundance and economic growth with a negative impact is what is known as the "natural resource curse". Suseno (2019) and Wahyuningsih (2019) explained that the mining sector has no effect and harms GDP, and harms economic development. The same research was conducted by David, Noah, & Agbalajobi (2016) regarding the contribution of the mining sector to the economy in Nigeria that the value of solid minerals has a positive impact on economic development in Nigeria. Inversely proportional to the research conducted Suharto, Hilmawan, & Yudaruddin (2015) there is a negative impact from the impact of natural resources.

This negative impact has occurred in several developing countries, which shows that countries rich in energy mineral resources such as Peru, Zambia, Nigeria experience slow economic growth compared to countries that are poor in mineral and energy resources such as Taiwan and South Korea (Auty, 1993; Rosser, 2007)

The phenomenon of the natural resource curse occurs when countries that have an abundance of natural resources that are supposed to have fast economic growth, low levels of poverty, and high levels of welfare tend to have low economic growth, high levels of poverty, and low social welfare.

Rosser (2007) states that although resource wealth is often associated with slow economic development, it does not mean it is the main cause but rather the political, social, and economic conditions in the country. Humphreys et al., (2007) there are three different transmissions. First, Dutch Disease. Second, the quality of a country's institutions. Third, fluctuating commodity prices.

In research Auty (1993) and Rosser (2007) classify the causes of the resource curse phenomena are as follows:

1. State income that continues to increase due to high exports of natural resources which causes the exchange rate of money ultimately reduces the production of manufactured goods (dutch disease or the Dutch plague).
2. Fluctuations in commodity prices and their disruptive effects such as unstable product prices in the market make it difficult to pay debts.



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3. The effects of political conditions such as being more focused on the distribution of profits and less on supervision and economic regulation

### Research Hypothesis

1. There is an influence from the mining sector on economic growth in South Sumatra.
2. There is an influence from the mining sector on economic growth in 17 districts/cities in South Sumatra.

### 3. RESEARCH METHODOLOGY

The data used in this research is quantitative, namely by using secondary data from the Central Statistics Agency (BPS), the data used are Gross Regional Domestic Product (GRDP), economic growth, and the growth of the mining sector. The period in the study was 2010 to 2018 with the unit of analysis being South Sumatra Province and district/city level in South Sumatra.

This study uses descriptive analysis using the Statistical Location Quotient (SLQ) and Dynamic Location Quotient (DLQ) methods and quantitative analysis with time series regression and panel data regression methods as follows:

Descriptive analysis is used to determine the description of districts/cities whose mining sector is the basic sector. To find out that the mining sector in a district/city is basic, it is measured by the Location Quotient (LQ) method which consists of two types, namely: Statistical Location Quotient (SLQ) and Dynamic Location Quotient (DLQ) (Kuncoro, 2019) is:

#### 1. Statistical Location Quotient (SLQ)

$$SLQ_{it} = \frac{V_{ik}/V^k}{V_{ip}/V_p}$$

Information :

SLQ = Location Quotient statistics of sector i in the district/city

$V_{ik}$  = GRDP value of sector i district/city

$V^k$  = Total GRDP of all sectors in the district/city

$V_{ip}$  = PDRB value in sector i South Sumatra

$V_p$  = Total GRDP in all sectors of South Sumatra

Possible SLQ values obtained:

1.  $SLQ > 1$ : means that sector i is the base sector in the district/city.
2.  $SLQ < 1$ : This means the sector i area is not the base sector in the district/city.
3.  $SLQ = 1$ : means that sector i is the base sector in regencies/cities and South Sumatra.

#### 2. Dynamic Location Quotient (DLQ)

$$DLQ_{it} = \left[ \frac{(1+g_{ij})/(1+g_j)}{(1+G_j)/(1+G)} \right] \frac{IPPS_{ij}}{IPPS_j}$$

Information:

$DLQ_{it}$  = Potential index for sector i in the district/city

$g_j$  = The growth rate of sector i in the district/city

$G_j$  = The rate of growth in sector i in the province of South Sumatra

$g_i$  = Average growth rate in districts/cities

$G_i$  = average growth rate in the province of South Sumatra

The DLQ values are as follows:



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1.  $DLQ < 1$  means that the development of sector  $i$  in the province is faster than in districts/cities and sector  $i$  cannot become a base sector.
2.  $DLQ > 1$  means that the development of sector  $i$  in the province is slower than in the district/city and sector  $i$  can become the base sector.

**Table 2: Classification of Sectors based on the Combined Value of SLQ and DLQ**

Criteria	DLQ < 1	DLQ > 1
SLQ < 1	Underdeveloped sectors that are not yet superior (I)	The sub-sector is not yet superior with the potential for superiority (II)
SLQ > 1	Leading subsectors that are no longer potential (III)	Leading subsectors that still have excellent potential (IV)

Source: (Kuncoro, 2019)

Quantitative analysis to determine the mining sector on economic growth in South Sumatra. This study was conducted to answer the second research objective, to determine the effect of the mining sector on economic growth in districts/cities and South Sumatra Province. First, to determine the mining sector on economic growth in South Sumatra, this model uses a variety of economic growth and the growth of the mining sector in South Sumatra. The model is then structured as follows:

$$PE_{sumsel} = \alpha + \beta_1 GMining_t + \beta_2 PE_{sumsel-t-1} + e \dots\dots\dots(1)$$

Meanwhile, to answer, the influence of the mining sector on economic growth in districts/cities is as follows:

$$PE_{it} = \alpha + \beta_1 GMining_{it} + \beta_2 DLQ_{it} + e \dots\dots\dots(2)$$

Where:  $PE_{sumsel}$  is the economic growth (GRDP) of South Sumatra (in percent);  $PE_{it}$  is district/city economic growth (in percent);  $DLQ$  is the value from the calculation of  $DLQ$  districts/cities in South Sumatra;  $GMining_{it}$  is the growth of the mining sector in districts/cities in South Sumatra;  $GMining_t$  is the growth of the mining sector in South Sumatra in recent years;  $PE_{sumsel-t-1}$  is the previous year's South Sumatra economic growth (GRDP) (in percent);  $\alpha$  is a constant;  $\beta$  is the coefficient of the variable;  $E$  is the error rate;  $i$  is a district/city;  $t$  is the year.

According to Gujarati & Porter (2013) there are several types of panel data regression models that are commonly used, namely Pooled Least Square (PLS), Fixed Effects Model (FEM), and Random Effects Model (REM). In selecting an estimation model from panel data, tests are carried out to ascertain which model is used in the analysis.

**Table 3: Hypothesis Formulation by Type for Panel Data**

Testing	Hypothesis	Testing Procedure
Chow Test	H0: Common Effect	Prob < 0.05 accepted Ha
	Ha: Fixed Effect	Prob > 0.05 accept H0
Hautsman Test	H0: Random Effect	Prob < 0.05 accepted Ha
	Ha: Fixed Effect	Prob > 0.05 accept H0
LM Test	H0: Random Effect	Prob < 0.05 accepted Ha
	Ha: Common Effect	Prob > 0.05 accept H0



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### 4. RESULTS AND DISCUSSIONS

Based on the results of the Statistical Location Quotient (SLQ) analysis for the mining and quarrying sector, six districts show it as a base sector, namely Muara Enim Regency, Lahat Regency, Musi Rawas Regency, Banyuasin Regency, PALI Regency, and Musi Rawas Regency. For Muara Enim Regency, it is clear that the resulting index is large because Muara Enim Regency has economic resources that rely on the mining and quarrying sector.

Districts/cities whose mining sector is based can meet their own needs in the mining sector and allow for exploration and exploitation. Economic activities in the basic sector produce goods and services that can be sold outside the region to increase regional income. Increasing activities of the basic sector in the area will increase revenue into the region concerned, thereby increasing the demand for goods and services produced.

Based on the results of the Dynamic Location Quotient (DLQ) analysis, it can be seen that the mining sector that has the prospect of becoming a base and has the potential to become a leading sector in the future is found in nine districts/cities, namely Ogan Komering Ilir Regency (OKI), Muara Enim Regency, Ogan Komering Ulu Selatan Regency, Ogan Ilir Regency, Empat Lawang Regency, Palembang City, Prabumulih City, Pagaralam City, and Lubuk Linggau City. This means that in the future the mining sector in these nine districts/cities will be the basis for the mining sector and can become a leading sector to support the district/city economy.

**Table 4: Table of Mining Sector Classification based on Comparative Analysis**

Criteria	DLQ < 1	DLQ > 1
SLQ < 1	The sub-sector is not superior yet has the potential to be superior (I) Ogan Komering Ulu Banyuasin East OKU	The sub-sector is not yet superior with the potential for superiority (II) Ogan Kumering Ilir South OKU Ogan Ilir Four Lawang Palembang Prabumulih Pagaralam Lubuk Linggau
SLQ > 1	Leading subsectors that are no longer potential (III) Lahat Musi Rawas Banyuasin Museum Pali Muaratara	Leading subsectors that still have excellent potential (IV) Muaraenim

Source: Central Statistics Agency, data processed with Eviews 8.0

Based on the classification results of the mining sector based on comparative analysis, it can be seen that Lahat Regency, Musi Rawas Regency, Musi Banyuasin Regency, PALI Regency, and North Musi Rawas Regency which are included in the III classification are areas whose mining sector is superior based on the results of the Static Location Quotient (SLQ) but These five districts have become leading sectors that have no potential to excel in the future based on the results of the Dynamic Location Quotient (DLQ). Musi Banyuasin Regency The mining sector plays a big role in the economy of Musi Banyuasin Regency. Musi Banyuasin is an oil and gas source area on the island of Sumatra. Mining goods in Musi Banyuasin Regency such as oil and natural gas. This is because the high dependence of the economy on the mining sector has led to higher economic growth, thus depleting gas reserves which makes the operating costs for exploration expensive.



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The mining sector is closely related to the productivity of oil and gas production and the availability of existing oil and gas reserves. Several oil and gas sources such as oil and gas wells in several districts of South Sumatra have entered an "old well" condition so that the level of oil and gas production is increasingly limited. The dependence on oil and gas commodities is reflected in the low growth rate of the mining sector in districts/cities that have the potential for oil and gas such as Musi Banyuasin Regency, Lahat Regency, Musi Rawas Regency (Central Statistics Agency of South Sumatra, 2018).

In the fourth classification, there is Muara Enim Regency which remains a leading sector and still has potential in the future. Muara Enim Regency is the main coal-producing area in South Sumatra Province which contributed 34.99 percent in 2018. There is the largest coal company in South Sumatra which is located in Muara Enim Regency, namely PT. Bukit Asam. PT Bukit Asam annually experienced an increase in producing coal in 2010, the amount of coal production reached 11.971796 tons, increasing to 19,455,781 tons (Central Statistics Agency of Muara Enim Regency, 2018). Besides, there is a boost to the capacity of human resources to exploit and explore new gas reserves. The ability of the community in this activity has an impact on regional income.

Ogan Komering Ulu Regency, Banyuasin Regency, and Ogan Komering Ulu Timur Regency are in Class I which in the future the mining sector is not yet superior and has no potential. The mining sector in this district does not have the potential to develop the mining sector because the mining reserves are not yet available in the district and the contribution contributed by the district is too low, which is below one percent (Central Statistics Agency of South Sumatra, 2018).

While in classification III there are Ogan Komering Ilir Regency, Ogan Komering Ulu Selatan Regency, Ogan Ilir Regency, Empat Lawang Regency, Palembang City, Prabumulih City, Pagaralam City, and Lubuk Linggau City, the mining sector is not yet superior and has the potential to be superior in the future. As in Prabumulih City, the mining sector can have the potential to excel through good management in finding new mining sources, so that the mining sector becomes a source of income for the community in the area. For now, the government has not yet seen the potential that exists in the mining sector, because the region's economy still depends on the agricultural sector. Besides, in Ogan Komering Ilir (OKI) the economic growth of the mining sector was high at 7.28 percent (Central Bureau of Statistics of Ogan Komering Ilir Regency, 2018). Therefore, there is a need for the role of government and society in seeing the potential of the economic structure.

Human resources also play an important role in managing natural resources, if human resources are not able to utilize and manage the mining sector properly, the mining sector is not utilized properly.

### **Time Series Regression Analysis**

The Influence of Mining on Economic Growth in South Sumatra

Based on the results of time series estimates, the growth of the mining sector has no significant effect seen from the prob value. the mining variable is 0.2739 and the pe\_leg 1 variable is 0.2099, which is greater than 0.05 and has a positive effect on economic growth in South Sumatra, seen from the coefficient value of the variable which has a positive sign, namely the mining variable of 0.1966 and the pe\_leg 1 variable of 0.38411.

The significance of the independent variable is indicated by the F-statistic probability value of 0.1739 greater than 0.05. So that the economic growth of the mining sector does not have a significant effect simultaneously on economic growth in South Sumatra.



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**Table 5: Results of Economic Growth Regression in South Sumatra**

Variable	Coefficient	Prob
C	2,544,928	0.162
MINER_S	0.196643	0.1739
PE_LEG1	0.384117	0.2099
R-squared	0.420288	
F-statistic	2.174985	
Prob (F-statistic)	0.194821	

Source: Central Statistics Agency , data processed with Eviews 8.

### Panel Data Regression Analysis

#### Panel Data Estimates

There are three techniques in the approach in estimating the panel data regression model, namely: Pooled Least Square (Common Effect) Model, Fixed Effects Model (Fixed Effect), and Random Effects Model (Random Effect). In selecting an estimation model from panel data, tests are carried out to ascertain which model is used in the analysis.

**Table 6: Estimation Results of The Panel Data Model with The GRDP Variable**

Variable	Coefficient	Std. Error	t-count	Prob
Common Effect Model				
C	4.506248	0.134871	33.41155	0.0000
MINER	0.160943	0.044510	3.615888	0.0004
DLQ	-0.081003	0.217445	-0.372520	0.7100
Fixed Effect Model				
C	4.489461	0.125738	35.70481	0.0000
MINER	0.091187	0.045137	2.020235	0.0454
DLQ	0.225443	0.217673	1.035695	0.3022
Random Effect Model				
C	4.499109	0.160788	27.98154	0.0000
MINER	0.131563	0.042923	3.065115	0.0026
DLQ	0.048135	0.208470	0.230897	0.8177

Source: Central Statistics Agency , data processed with Eviews 8.0

Testing Chow is used to determine whether the Common Effect or Fixed effect model is used. Based on the results of testing the cross-section probability value F of 0.0018, it can be concluded that the probability of the Cross Section is less than 0.05 percent. Thus, the suitable model hypothesis is the Fixed Effect model.

**Table 7: Chow Test Results**

Effects Test	Statistics	df	Prob
Cross-section F	2,548,304	-16,134	0.0018
Chi-square cross-section	40.644056	16	0.0006

Source: Central Statistics Agency , data processed with Eviews 8.0



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Furthermore, the Hausman test for selecting the model between the Fixed Effect and the Random Effect. The results of the Hausman test are the Prob value. The random cross-section of 0.015 indicates that the Chi-square probability value is smaller than 0.05, so the suitable model is the Fixed Effect model.

**Table 8: Hausman Test Results**

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-section	8.392956	2	0.015
Chi-square cross-section	40.644056	16	0.0006

Source: Central Statistics Agency , data processed with Eviews 8.

Based on the results of the Chow Test and the Hausman Test, there are the same results, namely the selected Fixed Effect model. So, the model used in this study is the Fixed Effect model.

Based on the estimation results of the Fixed Effect method, it shows that the growth variable of the district/city mining sector has a significant effect on the district/city economic growth variable as indicated by the probability of the variable being smaller than 0.05 ( $\alpha$ ) which is 0.04, while the Dynamic Location Quotient (DLQ) variable has no significant effect on the growth variable. district/city economy which is indicated by a prob value of 0.3022 which is greater than 0.05 percent. With an R2 value of 0.52 which indicates the magnitude of the influence of the dependent variable is 52 percent and the remaining 48 percent is influenced by other variables.

**Table 9: Regression Estimation Results with Fixed Effect Methods Growth of the Mining Sector in Regencies/Cities and LQ on Economic Growth in Districts/Cities of South Sumatra.**

Variable	Coefficient	Prob
C	4.489461	0.0000
MINE?	0.091187	0.0454
DLQ?	0.225443	0.3022
R-squared	0.585377	
Adjusted R-squared	0.529682	
F-statistic	1,051,030	

Source: Central Statistics Agency , data processed with Eviews 8.0

In the two analysis equations using panel data and time-series data.

This equation has different individual characteristics and different accommodation times at the intercept of each region as well as different constants. Then the model equation will be different. Based on these two equations, there are two estimation results as follows;

$$PE_{sumsel} = \alpha + \beta_1 GMining_{it} + \beta_2 PE_{sumsel_{t-1}} + e \dots \dots \dots (1)$$

$$PE_{sumsel} = 2.544928 + 0.196643 GMining_{it} + 0.384117 PE_{sumsel_{t-1}} + e$$

$$R^2 = 0.420870 \quad Fstatistic = 2.180187 \quad DW = 0.75$$

$$PE_{it} = \alpha + \beta_1 GMining_{it} + \beta_2 DLQ_{it} + e \dots \dots \dots (2)$$

$$PE_{it} = 4.489461 + 0.091187 GMining_{it} + 0.225443 DLQ_{it} + e$$

$$(35.70481)** \quad (2.020235)** \quad (1.035695)**$$

$$R^2 = 0.585377 \quad Fstatistic = 10.51030 \quad DW = 1.665585$$



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The interpretation of the regression results of the influence of the growth of the mining sector in South Sumatra on economic growth in South Sumatra in 2010 to 2018 and the influence of the base sector and the growth of the district/city mining sector on the economic growth of districts/cities in 2010 to 2018 are as follows:

### **The Influence of Growth in the Mining Sector on Economic Growth**

From the results of the regression analysis, it is known that the mining sector (through the growth of the South Sumatra mining sector on the economic growth of South Sumatra) has a positive and insignificant impact on the economy of South Sumatra. This result may be due to political and institutional failures, because most of the actors are economic rents, as a result of the economic conflicts in the region. These results are in line with Sueno (2019) conclusion that the coal and mineral mining sector does not have a significant impact on the formation of the structure of the Gross Domestic Product. These results are reinforced by research (Hilmawan et al., (2016) which states that a sector that contributes greatly to GRDP does not automatically place this sector as the main sector in developing other sectors, where the mining sector has not been able to develop other economic sectors and does not provide a strong link to encourage and attract economic sectors.

Based on the theory, natural resources are one of the determining factors for economic growth. Non-renewable natural resources such as mining can affect economic growth in an area, but in the case of South Sumatra Province, this is different. The mining sector in South Sumatra is one of the sectors that makes the largest contribution to the formation of Gross Regional Domestic Product, but its high contribution is not comparable to the growth in the mining sector. It can be seen from the contribution of the mining and excavation sector which continues to increase every year, but on the other hand, the percentage of growth in the mining sector has fluctuated and tends to grow slower than economic growth (Saleh & Suseno, 2017). Besides, when compared with the average percentage growth of the mining sector with the growth of other sectors, the mining and quarrying sector has an average growth of less than 5 percent.

Indications can be seen from the Province of South Sumatra, which has received a high contribution from the mining sector it experiences a high poverty rate. The percentage of poor people in South Sumatra reached 12.82 percent in 2018. This shows that the mining sector has not been able to increase the standard of living of the local community, due to the community's ability to work in that sector. The quality of human resources is often identified from the level of education. The higher the level of education of a person, it is expected that the higher the productivity and the higher the income and the greater the chance to be classified as less poor.

Meanwhile, the results of the growth of the mining sector in regencies/cities in South Sumatra on the economic growth of districts/cities in South Sumatra show that individually and simultaneously the results are positive and significant. This result means that the higher the growth of the mining sector, the economic growth of districts/cities in South Sumatra will also increase.

These results indicate that the mining sector has a positive impact on the economic growth of districts/cities in South Sumatra, there are no symptoms of the resource curse in the management of the mining sector in districts/cities that have a mining sector. These results are in line with research Fahriza & Hartono (2018), who concluded that in Indonesia there is no resource curse phenomenon between oil and gas resources and other resources.

Increased economic growth in the districts/cities of South Sumatra due to the influence of natural resources does not always promote welfare. Many natural resources stimulate economic growth but may also have insignificant effects on the regional economy, such as the growth of the mining sector in South Sumatra on economic growth in South Sumatra because of its impact which distorts the structure



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and allocation of economic resources. This is in line with research Wahyuningsih (2019) that the mining sector has a negative impact and tends to decline on the development of the East Kalimantan region, but the mining and quarrying sector is still basic.

### **The Effect of Base Sector Growth on Economic Growth**

In the results of the regression analysis seen from the results of fixed-effect regression, it is known that the regression coefficient of the Dynamic Location Quotient (DLQ) variable shows a positive result of 0.225443. The coefficient is positive, meaning that the Dynamic Location Quotient (DLQ) variable has a positive relationship with economic growth. This means that if the Dynamic Location Quotient (DLQ) increases by 1 percent, then economic growth will increase by 0.22 percent, assuming other factors outside the variables are considered constant.

Following the theory that the basic sector is the main determinant of the economic growth of a region, the existence of a base sector can encourage regional economic growth. The base sector can produce goods or services that will later benefit and cause regional economic growth to increase. With the increase in basic activities, the income in an area has increased.

The base sector has no significant effect on economic growth seen from the prob value. the estimation result of the fixed effect method regression is 0.3022 greater than 0.5 percent. This can be caused by the mining and excavation sector which is the base sector in districts/cities in South Sumatra, which over time the mining and excavation sector becomes a leading sector but in the future, it will not have the potential to excel again. The same result was carried out by Hlavová (2015) For countries dependent on mineral resources, the results of the correlation and regression analyzes were not statistically significant.

An area whose mining sector is based does not guarantee its economic success, because the natural resources are depleting over time, and gas reserves are decreasing. The depletion of stocks causes commodity prices to increase and results in reduced purchasing power and decreased economic income and makes it difficult to maintain its sustainability in the long term. This is due to the lack of new investment in the mining sector, without exploration and discoveries in the future production will decline.

It can be seen from the results of the classification of the mining sector based on a comparative analysis of districts/cities in South Sumatra, there are five areas whose mining sector is superior but in the future, there is no longer potential to excel, namely Lahat Regency, Musi Rawas Regency, Musi Banyuasin Regency, Pali Regency, and Regency. North Musi Rawas. The district explained that regions that are rich in natural resources will gradually run out because these areas always depend on these resources without doing proper processing and neglecting other potential sectors. The dependence of the district on natural resources is not the right thing, because the growth sector is temporary or limited to how much reserves it has.

In the oil and gas mining sector, a common obstacle is the high operating costs for exploration and exploitation. Even though large reserves of new gas have been discovered, the effects of these exploitation activities will be visible after some time. The ability of the community to carry out consumption and investment activities is also affected by fluctuations in commodity prices which have a significant impact on income. The role of government consumption, like most other regions, still depends on balancing funds, especially from the sharing of natural mineral resources.



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## 5. CONCLUSION

Based on the results of the discussion, it is concluded that the influence of the independent variables on the dependent variable during the period 2010 to 2018 with the objects of several districts/cities in South Sumatra is as follows:

(1) the calculation result of the Statistic Location Quotient (SLQ) six districts show as a basic sector, namely Muara Enim Regency, Lahat Regency, Musi Rawas Regency, Banyuasin Regency, PALI Regency, and Musi Rawas Utara Regency. And the calculation results of the Dynamic Location Quotient (DLQ), there are nine districts/cities Ogan Komering Ilir Regency (OKI), Muara Enim Regency, Ogan Komering Ulu Selatan Regency, Ogan Ilir Regency, Empat Lawang Regency, Palembang City, Prabumulih City, Pagaralam City, and Lubuk Linggau City means the mining and excavation sector in these districts/cities are several the next year will have the potential to become a superior;

(2) the mining sector has a positive and significant impact on economic growth in districts/cities, while in South Sumatra the mining sector has a positive but insignificant effect. About Gross Regional Domestic Product, there are no symptoms of the resource curse in the management of the mining sector in the regencies/cities of South Sumatra.

## LIMITATION AND STUDY FORWARD

This study has several limitations, namely the mining sector which is only seen from the growth of the mining sector to the growth of districts/cities in South Sumatra. For further research, other more specific indicators can be used, such as the contribution of the mining sector, profit-sharing funds, the export value of the mining sector, and other assessments. Besides, this study only includes analysis at the district/city level in South Sumatra so that further research can use it to analyze at the level of areas in Indonesia with abundant resources such as in Kalimantan and Papua islands and examining the results of existing research. Furthermore, adding data also needs to be done so that the analysis that will be carried out can be seen in a long time.

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## PRICE POLICY AND FARMERS' WELFARE IN INDONESIA IN THE SHORT AND LONG TERM: DYNAMIC MODELS

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### ABSTRACT

**Purpose.** This study aims to analyze agricultural price policies including inflation, dry grain prices and imports and their effects on the exchange rate of farmers in Indonesia.

**Research Methodology.** This study uses secondary data according to time series during the period January 2008-2019 December by applying a long-term test using *Vector Autoregression Regressive (VAR)* model.

**Limitation.** The limitation of this research is that its scope is only limited to the price limit policy.

**Results.** The results showed that (1) the determinants of farmers' welfare in the long term were inflation, rice imports and grain prices (2) Inflation, rice imports and dry grain prices reacted negatively to the growth of agricultural welfare in the short and long term, which was illustrated by the decrease in welfare variations farmers at the end of the period and did not have any other respond at the start of the period.

**Contribution.** It is hoped that this research will provide an overview of the determinants of farmer welfare in Indonesia both in the long and short term, especially in relation to price policy.

**Keywords:** *Farmer Exchange Rate, Inflation, Dry Grain Prices, Rice Imports*

## 1. INTRODUCTION

Measurements made by many economies in measuring welfare can simply be measured by income or expenditure (Wang et al., 2020; Yu, 2018). The theory of welfare was first proposed by Pigou (1929) to explain the concept of welfare and succeeded in placing the basis of traditional welfare theory. Welfare can be seen from the aggregate economic conditions, the agricultural sector has played an important role in the Indonesian economy in the last two decades with an average of 18.4 percent and has the highest percentage of labor absorption at 18.4 percent (Indonesian Statistics Agency, 2019).

Agricultural conditions in Indonesia show low productivity, traditional market orientation, and have not yet led to modernization, causing this sector to have low productivity compared to other sectors for the last 20 years. This condition will affect the welfare of farmers. According to BPS Indonesia (2020), farmers' welfare is measured from the farmer's exchange rate. Factual data show that in 2019, NTP increased by 0.91% compared to 2018. The largest increase in NTP occurred in the Horticulture sub-sector, namely 2.54%, while the lowest increase was in the Animal Husbandry sub-sector by 0.63%. Meanwhile, the decline in NTP occurred in the People's Plantation Crops Subsector by -0.15% (Ministry of Agriculture, 2020).

Measurement of farmers' welfare is inseparable from the inflation variable, where in much of the agricultural economy literature there is a negative impact of inflation on farmers' welfare. Wibowo's findings (2019) explain that inflation and farmer welfare have an inverted U-shaped pattern which shows that low inflation rates are negatively related to farmer welfare; a higher level of inflation will reduce the level of welfare significantly. Consistent with the findings, Lowder et al., (2016) stated that low and controlled inflation is a reflection of reasonable economic growth, with aggregate prices



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increasing due to growth in demand and purchasing power of farmers. So, at a certain point, a high inflation rate reduces welfare and purchasing power, and conditionally an increase in the price of goods and services consumed by farmers will reduce the purchasing power of farmers as a whole.

The measurement of inflation as a determinant of farmers' welfare is in contrast to various studies (Chamon & de Carvalho Filho, 2014; Nakamura et al., 2016) which states that the consumer price index (CPI) has been widely used to measure the cost of living and income adjustment, but this measurement is still debated due to its mismatching condition with empirical situation. This evidence is reviewed using *engel curve* model approach (Aguilar & Bils, 2015) and it was found that the consumption gap which is measured using the consumer price index (CPI) shows biased estimation results, welfare can be measured more closely through the expenditure approach. The same approach is used by (Almås, 2012) who estimates purchasing power, supported by the results of the same study by Young (2012) regarding alternative estimation of welfare in Africa.

### 2. LITERATURE REVIEW

Welfare measurement refers to Pigou's (1929) and Engel's (1895) welfare theory which is referred to by several studies (Nakamura et al., 2016; Yu, 2018) so that the Engel coefficient (Engel curve) is modeled into a mathematical equation as follows:

$$w_i = \frac{C_i}{Y_i} \quad (1)$$

where  $C_i$ ,  $Y_i$ , and  $w_i$  are food expenditure, total expenditure, and Engel coefficient for each individual or household. Engel's law predicts that  $w_i$  decreases at  $Y_i$ . In other words, Engel's curve is a function of income. So that this model can be extended mathematically in Equation 2:

$$w_i = w(Y_i, P_i, D_i, Z_i) \quad (2)$$

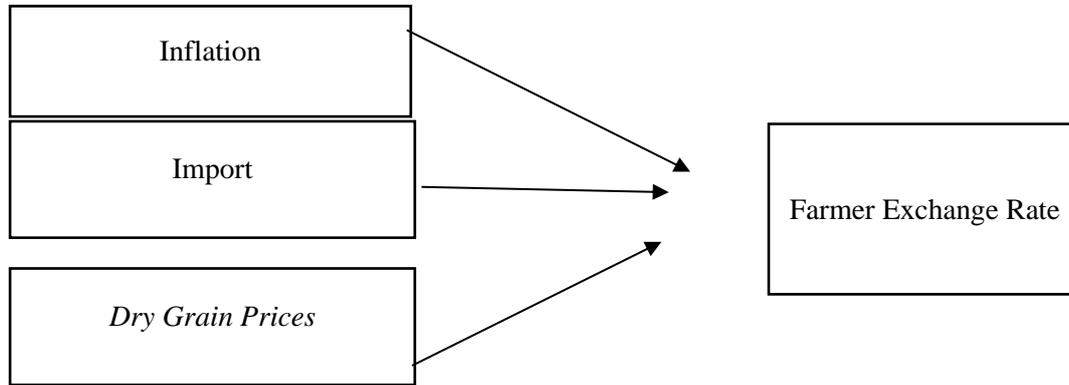
Thus, the Engel curve can be assumed to be a function of spending (or log expenses technically), price  $P_i$  (e.g. CPI), demographic variables  $D_i$ , and other consumer characteristics  $Z_i$ . Equation (2) is a general demand function. The condition can be assumed that if the individual does not have savings or loans, expenses can be substituted with income.

Several empirical studies that discuss changes in commodity prices, inflation and the welfare of farmers, Adekunle et al., (2020) for example, find that consumption and production patterns significantly reduce welfare, consistent with Arndt et al., (2008), who found that increase in food price give *shocks* to exchange rate, and these conditions affects the increase in consumption for low-income households. Arndt et al., (2016) stated that increases in food prices and inflation have an impact on household poverty conditions as measured by increasing malnutrition among children under five. Empirical evidence also links the condition of household consumption with welfare. Tian & Yu (2013) measure the welfare from various indicators, especially changes in food structure and improvement in nutrition. This welfare is also measured from various approaches by Almås & Johnsen (2013), which contrasts with the measurement based on the consumer price index (CPI). These approaches found greater increases in inequality and more moderate poverty reduction than those indicated by the CPI-adjusted measurement.

Household welfare in general is directly affected by changes in food prices through variations in purchasing power and profits from farming activities. Urban and rural households have shown to experience a decline in welfare as a consequence of food prices increase (Tiberti & Tiberti, 2018). The same effect was found by (Caracciolo et al., 2014) who found that an increase in agricultural commodity

prices would reduce farmers' welfare. Consistent with this, the increase in prices for most households has decreased their welfare (Minot & Dewina, 2015).

Based on the phenomenon of low agricultural productivity and refers to the welfare theory of Pigou (1929) and Engel (1895), as well as various previous studies that discuss price changes on farmers' welfare, the conceptual framework of this study that explains the flow of thought on the impact of short-term and long-term price changes on farmers' welfare can be illustrated as follows:



**Figure 1: Conceptual Framework**

Based on studies by (Minot & Dewina, 2015; Caracciolo et al., 2014; Nakamura et al., 2016; Tiberti & Tiberti, 2018) which discuss price changes widely and their consequences for welfare, the exogenous variable in this study are inflation, imports and prices, while the endogenous variable is farmers' health.

### 3. RESEARCH METHODOLOGY

This study will discuss the dynamic relationship between inflation, rice imports and dry grain prices during the period January 2008-2019 December. The focus of this study is agricultural economics, where we analyze how the impulse response of inflation, rice imports and the price of dry grain rice to the welfare of farmers as seen from the development of farmer exchange rates (NTP). This research model refers to research conducted by several literatures to identify factors that influence farmers' welfare by using the proxy of the farmer exchange rate relationship. The aim of this research is to identify the dynamic relationship between rice imports, the price of milled dry grain and inflation. The econometric model in this study uses the Vector Autoregression Regressive (VAR) model. The VAR model used in this study is as follows (Ekananda, 2016):

$$\Delta NTP_t = \alpha_0 + \sum_{i=1}^m \alpha_1 \Delta NTP_{t-i} + \sum_{i=1}^m \alpha_2 \Delta INF_{t-i} + \sum_{i=1}^m \alpha_3 \Delta MB_{t-i} + \sum_{i=1}^m \alpha_4 \Delta HG_{t-i} + \alpha_5 ECT1_{t-i} + \varepsilon_{1t} \quad (4)$$

$$\Delta INF_t = \alpha_0 + \sum_{i=1}^m \alpha_1 \Delta INF_{t-i} + \sum_{i=1}^m \alpha_2 \Delta NTP_{t-i} + \sum_{i=1}^m \alpha_3 \Delta MB_{t-i} + \sum_{i=1}^m \alpha_4 \Delta HG_{t-i} + \alpha_5 ECT1_{t-i} + \varepsilon_{1t} \quad (5)$$

$$\Delta MB_t = \alpha_0 + \sum_{i=1}^m \alpha_1 \Delta MB_{t-i} + \sum_{i=1}^m \alpha_2 \Delta NTP_{t-i} + \sum_{i=1}^m \alpha_3 \Delta INF_{t-i} + \sum_{i=1}^m \alpha_4 \Delta HG_{t-i} + \alpha_5 ECT1_{t-i} + \varepsilon_{1t} \quad (6)$$



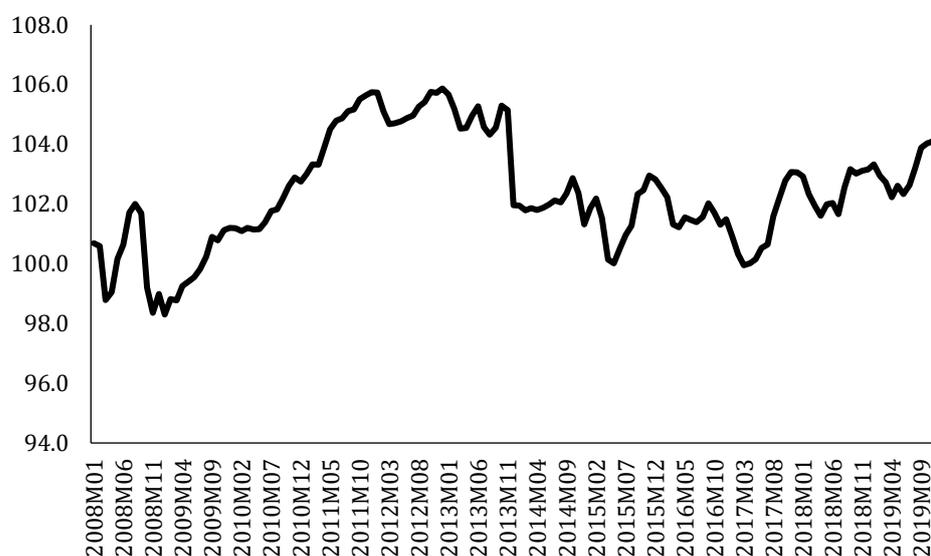
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$$\Delta HG_t = \alpha_0 + \sum_{i=1}^m \alpha_1 \Delta HG_{t-i} + \sum_{i=1}^m \alpha_2 \Delta NTP_{t-i} + \sum_{i=1}^m \alpha_3 \Delta INF_{t-i} + \sum_{i=1}^m \alpha_4 \Delta MB_{t-i} + \alpha_5 ECT1_{t-i} + \varepsilon_{1t} \quad (7)$$

The variables used in the welfare function model are transformed into natural logarithms, except for variables in percentage units for reasons related to interpretation.

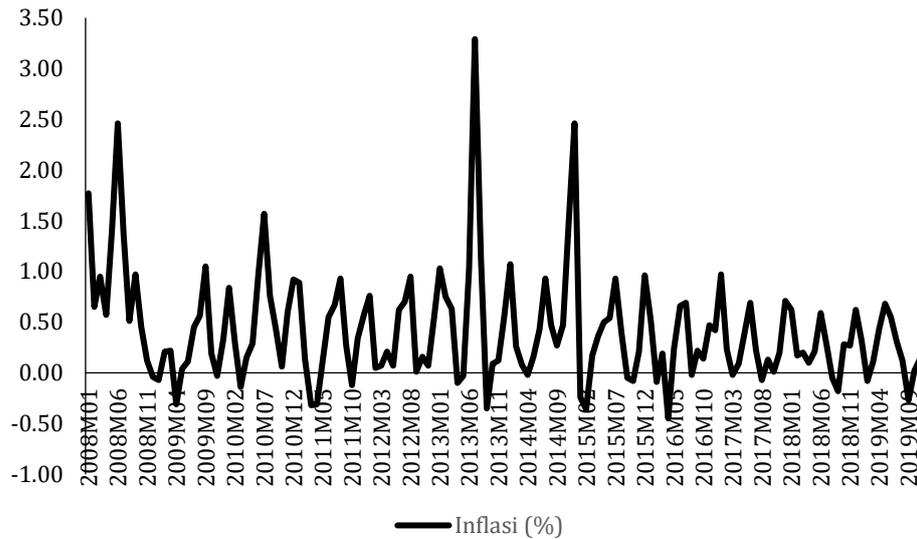
### 4. RESULTS AND DISCUSSION

Firstly, we analyzed the pattern of welfare of farmers in Indonesia needs along with the trend of inflation, rice imports and prices of milled grain rice in descriptive statistics during the period January 2008-2019 December.



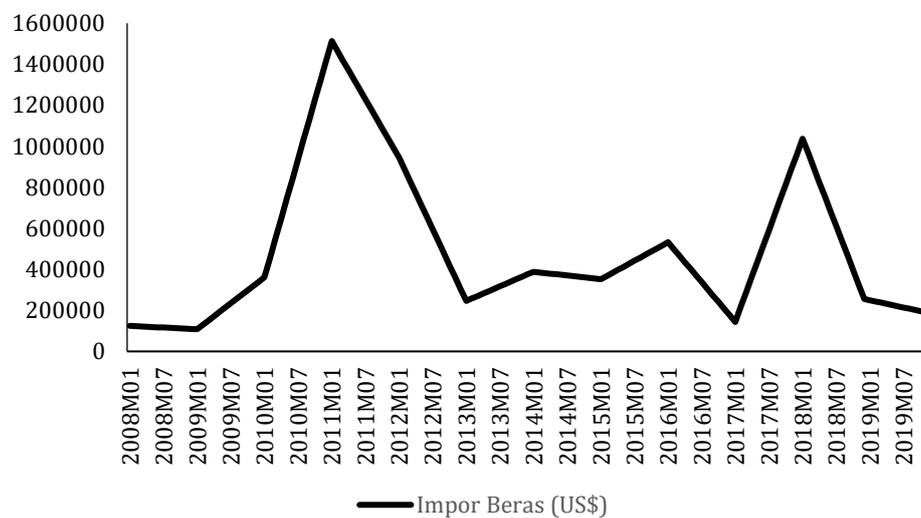
**Figure 2: Trends in Farmer Exchange Rates in Indonesia for the Period of January 2008 - December 2019**

The Farmer exchange rate trend fluctuates. Throughout 2019 the farmer exchange rate experienced a positive trend, especially in April-December 2019. Farmers exchange rates fell to the lowest pound during 2008 October-2009 August.



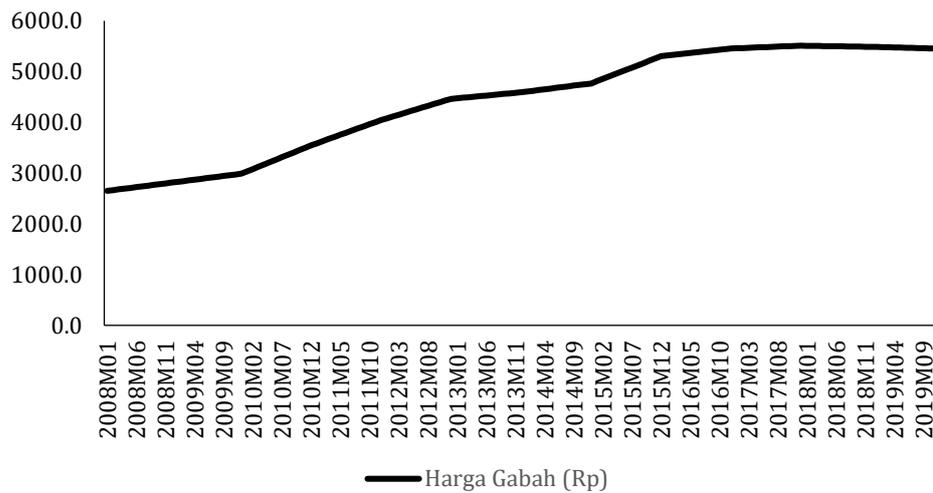
**Figure 3: Inflation Trends in Indonesia for the Period of January 2008- December 2019**

Inflation trend shows a fluctuating movement, and a high *shock* occurred in July 2013 and at the end of 2014. Inflation trends throughout 2017-2019 show changes that do not vary monthly and often experiencing a negative trend.



**Figure 4: Rice Import Trends in Indonesia for the Period of January 2008- December 2019**

Throughout January 2008 – January 2011, rice imports experienced a significant increase, while in February 2011-2013 January rice imports slipped down and remained constant with low price changes throughout 2014. Throughout January 2017 – July 2017 rice imports increased positively, but experienced a significant decrease in the January 2018-2019 period.



**Figure 5: Price Trends in Indonesia January 2008- December 2019 Period**

The price trend of milled grain rice during the 2008-2019 December period are fluctuated. However, this movement is relatively constant each month along a curve of constant change. After analyzing the trends of each determinant of the farmer's welfare, the Vector Autoregression Regressive (VAR) procedure is carried out, followed by the stationary, enlargement & shin tests *Second Difference* level (Pesar et al., 2000) as follows:

**Table 1: Unit Root Test at Second Difference**

Series	t-Stat	Prob.	E(t)	E(Var)	Lag	Lag
D(LnNTP,2)	-11.289	0.0000	-1.514	0.754	2	D(NTP,2)
D(INF,2)	-10.983	0.0000	-1.476	0.795	6	D(INF,2)
D(LnMB,2)	-13.857	0.0000	-1.532	0.735	0	D(MB,2)
D(LnHG,2)	-11.856	0.0000	-1.532	0.735	0	D(HG,2)

The estimation results of the unit root test at the second difference level show that the exchange rate farmers, inflation, rice imports and stationary grain rice prices from the t-value  $< \alpha$  ( $0.00 < 0.05$ ). The next test is the lag optimum use to avoid serial correlation between the error terms with an endogenous variable in the model that may cause an inconsistent estimator (Gujarati, 2004)

**Table 2: Optimum LagTest**

Lag	LnNTP	INF	LnMB	LnHG	Joint
Lag 1	190.3893	49.14121	827.9002	2358.019	3438.945
	[ 0.0000]	[ 0.0000]	[ 0.0000]	[ 0.0000]	[ 0.0000]
Lag 2	12.28471	25.41867	143.4265	523.9814	708.8512
	[ 0.0154]	[ 0.0000]	[ 0.0000]	[ 0.0000]	[ 0.0000]

The estimation results show that the determination of the lag length in the model used to estimate Vector Autoregression Regressive (VAR) is one lag for 4 variables. The cointegration testing criteria is based on a trace statistic greater than the critical value, so the alternative hypothesis which implies the number of cointegration is accepted so that it can be known how many equations are cointegrated in the model. If the test proves there is a cointegration vector, we will apply VECM for estimation.



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**Table 3: Cointegration Test**

Hypothesized No. of CE (s)	Trace Statistic			
	Eigenvalue	Trace Statistic	Critical Value (0.05)	Prob. **
None *	0.401678	103.7344	47.85613	0.0000
At most 1 *	0.088888	30.79957	29.79707	0.0382
At most 2 *	0.078376	17.58082	15.49471	0.0239
At most 3 *	0.041313	5.991031	3.841466	0.0144

Cointegration test shows that in the three models estimated, the overall value *Trace Statistic* is greater than the *Critical Value*. So it can be concluded that there are three cointegrations in the equation model, but in the research analyzed only 1 model. The next step was the VECM test. Based on the long-term structural model, it implies the existence of *intercept* and *trend* are in linear form, the test uses the assumption of a *cointegration test* based on the Schwarz Criteria (SC) (Pesars, 1997).

**Table 4: Vecm Model**

Cointegrating Eq:	CointEq1			
LnNTP (-1)	1			
INF (-1)	-0.150254 -0.01853 [-8.10724]			
LnMB (-1)	-0.030967 -0.01372 [-2.25725]			
LnHG (-1)	-0.026516 -0.04202 [-0.63106]			
C	-3.945146			
Error Correction:	D (LnNTP)	D (INF)	D (LnMB)	D (LnHG)
CointEq1	-0.01037 -0.0086 [-1.20675]	5.915786 -0.74574 [7.93282]	-0.05655 -0.10865 [-0.52050]	-0.00259 -0.00216 [-1.19846]

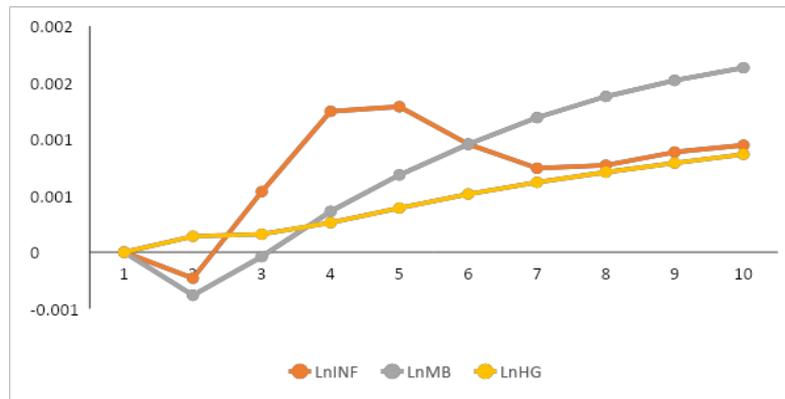
The estimation results show that the corrected variable (LnNTP) around the long-term trend (where each variable is determined by inflation, rice imports and grain prices). The equation model can be written as follows:

$$\begin{aligned} LnNTP = & -0.01037 (LnNTP(-1) - 0.150234 (INF(-1) - Ln0.0309 (IMB(-1) \\ & - 0.02615 (INF(-1) \end{aligned}$$

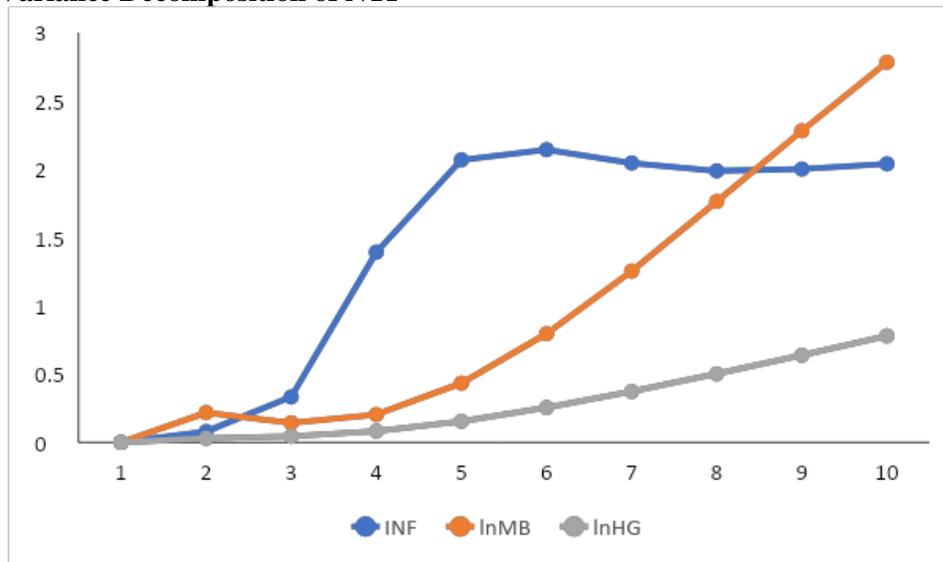
The Adjustment coefficient LnNTPof -0.01037 is at a value of  $-1 < \alpha < 0$  indicating that there is a correction process that affects the fluctuation of the LnNTP variable. The existence of the LnNT correction process against the long-term trend E [LnNT] will affect the growth of LnNT.

The long-term trend of change will be seen using the *impulse factor and variance decomposit* as follows:

## a. Response of LnNTP



## b. Variance Decomposition of NTP



**Figure 6: (A) Response to Farmer Exchange Rates (B) Variance Decomposition to Farmer Exchange Rates**

Figure 6 (a) shows all the variables that respond to the shock of farmers' welfare, namely: inflation, rice imports and milled grain prices. The shock makes the impulse response off to zero indicating that the vector error correction (VECM) model is stable.

Furthermore, Figure 6 (b) shows the variance decomposition which corrects the error variance in the estimate for each dependent variable and the independent variable when there is a shock to the independent variable. Therefore the variance decomposition describes in detail the volatility of the farmer's welfare. These shocks often explain the high variation in forecast errors, even though the shocks have effects on other variables. Figure 6 (a) shows in detail how each variable in the model contributes to fluctuations in farmer welfare growth.

In the one year period, the error in estimating the welfare of farmers explains the variation in inflation, rice imports and the price of dry grain rice, each by 7.9 percent, 21.18 percent and 2.09 percent. In the third year the forecast error explains the variation in inflation, rice imports and the price of dry grain rice, each by 33 percent, 14 percent and 4 percent. In year ten, the error in estimating the welfare of farmers explains fluctuations in inflation, rice imports and the price of dry grain rice, each by 204 percent, 278 percent and 78 percent.



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In the short-term, between the first and third years, inflation and rice imports have the biggest contribution in explaining the variance of farmers' welfare. Over time, the variation of the grain price variable increased. In the 10th year, when there was a shock to the welfare of the farmers with variations in inflation, rice imports and the price of dry grain rice increased simultaneously. This reinforces the fact that inflation growth, rice imports and grain prices are significantly have positive correlation with the welfare of farmers in the short and long term.

Figure 6 (a) shows how these variables interact with each other. Inflation, rice imports and the price of un hulled rice have significantly reacted to the growth of farmers' welfare by responding negatively in the first three years and not responding thereafter. This confirms that inflation, rice imports and grain prices have a negative effect on the welfare of farmers in the long and short term, as discussed in the previous error correction model. One of the explanation discusses the possibility that inflation, rice imports and high grain prices can reduce farmers' welfare. These findings have been disclosed on Engel Curve and Pigou. In line with this, this negative response is consistent with previous studies (Minot & Dewina, 2015; Caracciolo et al., 2014; Nakamura et al., 2016; Tiberti & Tiberti, 2018) which discusses price changes broadly and their consequences for welfare.

### 5. CONCLUSION

This study discusses the short and long term relationship between inflation, rice imports and grain prices on the welfare of farmers in Indonesia during the period January 2008-2019 December. The analysis techniques used in this research are *Vector Error Correction Model (VECM)* and *Vector Auto Regressive (VAR)*. The findings show that the determinants of farmers' welfare in the long run are inflation, rice imports and grain prices. Meanwhile, in the short and long term, it shows that the biggest variations that determine the welfare of farmers are inflation and rice imports. This condition shows a shock to the growth of farmers' welfare during the last 10 years.

Inflation, rice imports and the price of dry grain rice react to the growth of agricultural welfare in the short and long term. This reaction was responded negatively, indicating that there was a decrease in the variation of farmers' welfare from year 10 and no longer responds in the first year. This finding has important implications for the price policy set by the government. In general, an increase in price policy in terms of inflation, imports and grain prices will reduce the welfare of farmers. Thus, the implication can be made to balance the price policy according to the purchasing power of farmers. Thus, the price adjustment is expected to improve the welfare of farmers.

### LIMITATION AND FUTURE RESEARCH

This research still focuses on price policy in the long and short term so that it cannot predict the determinants of farmers' welfare in the long and short term. Future research is expected to analyze other policies such as trade policies, political policies and production policies.

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## THE EFFECT OF AUDIT COMMITTEE ATTRIBUTES ON SUSTAINABILITY REPORTING OF BANKS IN INDONESIA

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### Abstract

**Purpose** – This paper examines the effect of attributes of audit committees on sustainability reporting (SR) of commercial banks in Indonesia.

**Design/methodology/approach** – This study conducted a cross-sectional and time series analysis using samples of 70 commercial banks from 2015 to 2019. The audit committee attributes investigated under this study are financial expertise, size, independence, and meeting frequency. The model under study is underpinned by the theory of legitimacy and stakeholders.

**Findings** – This study found that financial expertise of audit committee has an inverse relationship with SR disclosure. Meanwhile, there is a positive relationship between committee independence, Bank size, bank age, and type of auditor with SR disclosure.

**Research limitations** – The samples in this study are banks in Indonesia that are relatively new to a sustainable finance policy, thus, the results found in this paper may not be applied to banks in other countries.

**Practical implications** – The results of this study have implications to various stakeholders. For regulators, these findings provide new insights regarding the importance of the audit committee's attributes in encouraging the practice of SR. The more intense attention to the committee's audit function could promote the better practice of SR. Meanwhile, a bank would benefit from this findings in strategizing the effective measure in practicing SR.

**Originality/value** – This study fill in the gap in the SR literature by presenting results from a study on among banks in developing countries like Indonesia, where regulators have a dominant role in determining sustainable reporting implementation. The literature on SR practice in developing countries is still limited leaving many issues remain underexplored. At present, the SR is a disclosure that is expected by most stakeholders.

**Keywords** Sustainability reporting, Audit Committee, Sustainable finance

**Paper type** Research paper

### 1. INTRODUCTION

For many years, banks around the world have received considerable continuous pressure from various stakeholders such as shareholders, investors, media, NGOs, and customers, to practice responsible and ethical in conducting their business operation. In response to this, financial institutions worldwide have on upward trends integrated sustainability issues into business practices.

However, for the sustainability business practices being effective, a long-term business strategy must be in place. For all managers, decisions on the distribution of firm resources with a strong emphasizes on long-term business strategy is a challenging task (Qiu *et al.* 2016). This challenging task, however, is possible with the practice of effective corporate governance. Otherwise, weak corporate governance may lead to financial crisis among business entities. The Enron and World.com case and the financial crisis in 2008 are the major example in business literature in relation to the critical role of corporate governance.

The said case has urged corporate world to revisit financial reporting issues that may contribute to the company's failure. The related issues are tighter regulations, better corporate governance and transparency of financial and non-financial information (Badolato *et al.* 2014). This corporate governance practices is utmost important for the stakeholders to carry out more effective control and



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monitoring, responsible management, in which would increase the company value (Davidson *et al.* 2005). Further, the corporate governance is believed to be an effective measure to minimise the risk of business bankruptcy. In discussion of corporate governance, two principles behind it are accountability and transparency. Transparency is a force that, if applied consistently, would have positive effect on the issues of corruption, governance, and accountability (Chen and Zhang, 2014).

In line with its strategic important as has been discussed in the literature, sustainability reporting (SR) has attracted much attention from researchers and has become a new critical direction for research in accounting and management since this reporting concept was introduced by the Global Reporting Initiative (GRI). GRI stresses the disclosure of information on environmental, social, and governance in financial report. The disclosure of these three group of information would ease companies in taking a sustainability strategy and provide adequate information for stakeholders to have a better evaluation on the company's sustainability performance (Hubbard, 2009; Ameer & Othman, 2012; Boons *et al.* 2013). The GRI defines sustainability reporting as a process of goal setting, measuring an organization's economic, social and environmental performance in relation to sustainable development based on the triple bottom line concept (Global Reporting Initiative, 2016).

Although call for the implementation of corporate sustainability reporting is louder now than before among researchers and practitioners, the practice in Asia and other developing countries is still in its early stages compared to developed countries. Therefore, much information about this phenomenon is still underexplored and unknown. Therefore, a deeper study of the function of corporate governance in sustainability reporting is very much necessary so to bridge the gap in the literature especially using data from an emerging significant economy of Indonesia, the fourth largest economy in the world. To conduct this study, the close attention is given to test the relationship between the attributes of the Audit Committee and the sustainability reporting of banks in Indonesia. By achieving this research objective, the findings would extend the corpus of the literature in relation to the role of the audit committee's attributes in affecting the practice of disclosure of information in sustainability reports.

This study has a significant interest by focusing study on banking sector. This is because players in this sector has shown high interest on sustainability issues (Hassan and Syafri Harahap, 2010; Pérez and Bosque, 2014). Further, the banking sector plays an essential role in supporting the economy of a nation such as in providing funding needed by corporations. To provide a framework of SR for the banks in Indonesia, the Financial Services Authority, as the financial industry regulator issued a sustainable finance roadmap in 2014, followed by OJK Regulation number 51 of 2017 concerning sustainable finance.

SR disclosure is essential for all stakeholders. Therefore, study on the factors influencing the disclosure of sustainability information may extend the literature on this issue thus adding new knowledge to the stakeholders of banks. In this present study, the SR literature is extended by presenting evidence of the effect of the audit committee on sustainability disclosure using a sample from a large developing country, namely Indonesia. This study also provides additional evidence about the contribution of the audit committee's attributes to disclosing sustainability information. This finding is useful for the alignment of company strategy and reassigning internal priorities and further, to reposition the company's in relation to SR. This present study also has significant important to the regulators in Indonesia as this study reports a more detailed picture of how the policies issued by the OJK may have impacted the practices in the industries.

## 2. LITERATURE REVIEW

Over the last few decades, many companies voluntarily disclose information on governance, environment and social to gain stakeholder legitimacy as well as improve the company's reputation (Gamerschlag *et al.* 2011; Gangi *et al.* 2019; Omran and Ramdhony, 2015). The Governance and Accountability Institute (GAI) reports that approximately 81% of S&P 500 companies issued a



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sustainability report in 2015, compared to less than 20% in 2011. By 2016, over 13,000 companies had produced more than 80,000 reports globally (D'Aquila, 2018).

Proponents of SR strongly believe that commitment to sustainability report will result in economic and non-economic returns for both, companies and stakeholders. This is in-line with positive consequences of SR practices. For instance, SR leads to better external and internal decision making with greater transparency which in turn leads to financial stability and social sustainability (Larrinaga-Gonzalez, 2007; Milne and Gray, 2013; Burritt and Schaltegger, 2010).

This research is grounded on two theories, namely the theory of legitimacy and stakeholders. According to Shehata (2014), these theories provide explanation for researchers in investigating CSR disclosure, thus applicable to SR disclosure as well. According to the legitimacy theory, disclosure of both financial and non-financial information in the annual report is necessary for companies to gain legitimacy for decisions and practices put in place (Georgiou and Jack, 2011). The adequate closure of information in annual report will have a positive effect on meeting community expectation and increasing the company's legitimacy.

Branco and Rodrigues (2006) in their research on social responsibility at banks in Portugal, state that legitimacy theory provides explanation for SR practices. In different perspectives, the stakeholder theory views that organizations carry out voluntary disclosure to meet stakeholder demands (Jizi *et al.* 2014). In appreciating the different but complementing view of these two theories, this study uses both, namely legitimacy, and stakeholder theory. This approach supports this present study in analysing the relationship between corporate governance and sustainability reports.

According to Beasley *et al.* (2009) the audit committee is one of the most critical elements of a good corporate governance framework. The existence of an audit committee, among others, aims to improve the effectiveness of board oversight, financial reporting quality, and better risk management while reducing the problem of information asymmetry. Understanding the importance of the audit committee's function in governance, the Indonesian central bank requires each bank to establish an audit committee board consisting of a minimum of three non-executive members. It must have at least 1 (one) member with an educational background and accounting and finance expertise.

In recent years, there has been increasing attention to the audit committee's role regarding its role in the preparation of financial reports. The audit committee is considered to be more dynamic in reviewing financial statements to reduce differences in perceptions between managers and external auditors (Be 'dard *et al.* 2004; Alzeban & Sawan, 2015). This makes the company more likely to get qualified opinions and avoid accounting errors and non-compliance with accounting standards. In other words, this reduces the possibility that the company will have an ineligible opinion from the external auditor due to accounting errors and non-compliance with accounting standards. The audit committee plays a vital role in corporate governance practices (Zain *et al.* 2006).

A plethora of studies on the role of the audit committee have been documented. One of the main streams on this literature is the audit committee's contribution to the quality of financial statements and voluntary disclosure (Zgarni *et al.* 2016). This is in-line with the strategic role of the audit committee. According to Rainsbury *et al.* (2009), the audit committee is critical to facilitating the board of directors to provide financial and non-financial information to stakeholders. These information forms a reliable and valid basis for the management performance evaluation to be carried out accurately, relevant, timely, and adequately and produce the right decisions. Further, Li *et al.* (2012) noted that an effective audit committee would improve the quality of disclosure and quality of financial reports. Meanwhile, Samaha, Khelif, and Hussainey (2015) proved that an effective audit committee also increases voluntary disclosure level and quality. Another researcher has stated that the effectiveness of the audit committee depends on the characteristics of the audit committee (Cohen *et al.* 2014; Inaam and Khamoussi, 2016; Rochmah Ika and Mohd Ghazali, 2012). However, to support the audit committee to carry out its responsibilities efficiently, Madi *et al.* (2014) and Alqatamin (2018) emphasize that the audit committee requires a combination of reliable experience, expertise, and capabilities of committee members.



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Although many empirical evidence about the relationship between audit committee attributes and voluntary disclosure has been reported, the findings are inconclusive. This has resulted call more research to be carried out as an effort the shed light on the related and emerging issues of audit committee. For example, Abdur Rouf (2011) and Samaha *et al.* (2015) documented the audit committee's positive influence on voluntary disclosure. In contrary, this positive relationship is not supported by (Li *et al.* 2012) and (Othman *et al.* 2014). Therefore, the role of the audit committee may depend mainly on the attributes attached to each individual.

The following paragraphs discuss the hypothesis generation of this study. Each hypothesis discusses the relationship between audit committee attributes and SR disclosure.

### **Financial Expertise of Audit Committee**

Beasley *et al.* (2009) found a positive relationship between the audit committee's financial competence and the quality of financial reporting. In the similar vein, Badolato *et al.* (2014) reported that the reliability of earnings quality has positive relationship with the audit committee's activity and responsibilities. In other studies, the positive relationship between audit committee expertise and disclosure are also proven (Mangena and Pike., 2005; Barros *et al.* 2013; Bilal *et al.* 2018). Therefore, this study formulates the first hypothesis as follows:

H1: There is a positive relationship between the financial expertise of audit committee and the level of SR disclosure

### **Audit Committee Size**

The number of audit committee members, which is not less than three people, is a requirement that is widely used by various stock exchanges in the world. This is because this number is believed to be an indicator of effective monitoring (Hoitash 2009). The bigger size of audit committee may indicates a wider knowledge and experience, which will results the audit committee to be more effective (Sun and Liu, 2014; Alqatamin, 2018). However, more committee members would also result in more responsibilities so thus may cause the monitoring process becomes less effective (Detthamrong *et al.* 2017).

The literature on the effect of audit committee size on financial reporting has inconsistent findings (Samaha *et al.* 2015). A study by Mangena and Pike (2005) was unable to find a significant relationship between audit committee size and voluntary disclosure in interim reports. However, other studies found a positive relationship between audit committee size and SR disclosure. For example, Li *et al.* (2012) and Li *et al.* (2008) reported that the size of the audit committee has a positive effect on intellectual capital disclosure. Other studies by Mohammadi *et al.* (2020) also found evidence that the number of audit committee members tends to increase the level of voluntary disclosure. Li *et al.* (2012) concluded that the greater the number of members, the better the ability of the audit committee to solve problems associated with the reporting process. Inaam and Khamoussi (2016) also emphasized that size is an essential factor for monitoring company disclosure practices. Based on the above literature, this study formulates the second hypothesis as follows:

H2: There is a positive relationship between audit committee size and the level of SR disclosure

### **Independent Audit Committee**

The independence of the audit committee, as stated by Sun *et al.* (2014) is the main characteristic that affects the competence and effectiveness of the audit committee in the financial management process. The audit committee's independence plays an important role in financial reporting, auditing, and corporate governance. Kamarudin, Wan Ismail, and Samsuddin, (2012) emphasized that one of the attributes of an effective corporate governance system is the audit committee's independence. The more independent the audit committee is, the more objective it is. Furthermore, Rahman and Ali



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(2006) also state that the audit committee's independence and competence play a role in more active, effective, and efficient supervision. A study by Neifar and Jarboui (2018) found that the audit committee's independence has a significant positive relationship with risk disclosure.

Meanwhile, several other studies have reported a negative relationship (Lopes and Rodrigues, 2007; Mangena and Pike, 2005). Research conducted by Song and Windram (2004) failed to prove that the audit committee played a role in reducing earnings management. Bédard and Gendron (2010) in their review literature on the relationship between audit committee effectiveness and independence found that 53 percent of studies prove a positive relationship between audit committee independence and effectiveness. In comparison, 42 percent of studies do not show a significant relationship. So the third hypotheses as follows:

H3. The independence of the audit committee has a positive effect on the level of SR disclosure.

### **Audit Committee Meeting**

To effectively oversee corporate reporting and carry out other responsibilities, audit committees must devote time in the form of more frequent meetings. More frequent meeting of audit committee is required for the company to have adequate monitoring on the quality of company reporting and internal problems of the company (Karamanou & Vafeas, 2005 and Agrawal & Chadha, 2005). Leipziger (2015) also emphasizes the importance of the chairman and members of the audit committee allocating time to carry out their responsibilities. In sum, the more frequent meetings are held, the more effective they will be in discussing audit reports and financial reports, including sustainability reports. The audit committee meetings are important mechanism to have influenced the report's content and quality (Stewart & Munro, 2007). In the similar vein, Salloum *et al.* (2014) emphasized that meeting frequency is a crucial factor in the reliability and efficiency of company activities. In short, the frequency of meetings is an essential characteristic of the audit committee. Therefore, council members who meet regularly are more likely to perform their monitoring and control responsibilities more effectively.

Barros *et al.* (2013) found a positive relationship between the number of audit committee meetings and company growth and profitability. Another researcher, Taliyang and Jusop (2011) has also found a positive relationship between audit committee meetings and intellectual capital disclosure. Further, Mohd Saleh *et al.* (2007) and Musallam (2018) reported that meeting frequency was related to better financial reporting quality and voluntary disclosure. Therefore, this study formulates the fourth hypothesis as follows:

H4: Frequency of audit committee meetings has a positive effect on the level of SR disclosure.

### **3. RESEARCH METHODOLOGY**

This study analyses annual reports and sustainability reports from 74 commercial banks in Indonesia for 2015-2019. There are 79 commercial banks in Indonesia; however, only 74 banks met the selection criteria. The criteria used are including the completeness of the data required, availability of data on social, environmental and governance either in the sustainability report or in the annual report during the study period.

The independent variables of this study are financial expertise of audit committee, audit committee size, the independence of the audit committee and the frequency of audit committee meetings. The dependent variable of this study is SR disclosure. It was measured using the sustainability disclosure indicator based on POJK regulation number 51 of 2017, in which consists of 57 disclosure items.

This study uses three variables that widely reported in the literature as control variables, namely: company size, company age, and audit firm. The natural logarithm of total assets is used to measure firm size, while the audit firm is measured by dummy variables, the big four and non-big four.

To estimate the effect of independent variables on the dependent variable and a set of control variables, the following model was used.

$$SR_{it} = \beta_0 + \beta_1 FEAC_{it} + \beta_2 SZAC_{it} + \beta_3 INDAC_{it} + \beta_4 METAC_{it} + \beta_5 BSZ_{it} + \beta_6 AGE_{it} + \beta_7 QA_{it} + \varepsilon_{it}$$

The variables used in this study are explained in Table 1:

Table 1: Research Variables

Variables	Symbol	Type	Measurement
SR Disclosure	SR	Dependent	Index of SR disclosure based on OJK rule
Audit committee financial expertise	FEAC	Independent	The variable is dummy. One of the audit committee member has a financial expertise and zero otherwise
Audit committee Size	SZAC	Independent	The number of audit committee members
Audit committee's Independence	INDAC	Independent	The number of independent committee members
Audit committee meeting frequency	METAC	Independent	The number of meetings every year
Bank size	BSZ	Control	The firm size is calculated by natural log of total sales of the company
Bank age	AGE	Control	Difference between the financial year and the year the bank was founded
Audit quality	QA	Control	The variable is dummy (1 for big 4 and 0 otherwise).

### Descriptive Statistic

Table II shows that the average audit committee size is 3, with a minimum value of two and a maximum of eight. Governance regulations require a minimum of three audit committee members. This data shows that the majority of banks follow these rules. Governance regulations also require audit committee meetings of at least four times a year. This is supported by data that shows the average audit committee meeting is 4.38. Concerning member independence, most committee members are independent directors, as indicated by the average score of 5.77. Regarding finance expertise, all audit committee members in the bank in this study had the skills needed to become an audit committee.

Table 2: Descriptive Statistic Variables

Variables	Symbol	Mean	Max	Min	SD
SR Disclosure	SR	0.532	0.774	0.225	0.126
Audit committee financial expertise	FEAC	0.491	1	0	0.410
Audit committee Size	SZAC	3.8	7	2	1.251
Audit committee's Independence	INDAC	5.77	3	0	0.084
Audit committee meeting frequency	METAC	4.38	10	1	2.68
Bank size	BSZ	24.001	56.331	4.665	2.551
Bank age	AGE	36.496	69	4	1.004

Observation (N = 370)

The average SR index was 0.532 percent, with a minimum value of 0.225 and a maximum of 0.774. This index is calculated based on OJK regulations. The average level of the SR score indicates that most banks disclose SR information at an early stage. This is reasonable considering the OJK roadmap on SR was only created in 2014. The magnitude of the deviation between the interbank disclosure levels is not surprising given that SR disclosure was only mandatory in 2019 and does not yet apply to

all banks. Given that since 2019 SR disclosure has become compulsory in Indonesia, it is expected that the quality of SR disclosure will be better in the future.

### Model validity

In ensuring the validity of the model, this study conducted several tests, including the normal distribution test, autocorrelation test, and multicollinearity. The model certainly does not have homoscedasticity. Table III ensures that the research data is normally distributed based on all variables' values are more than 0.05.

**Table 3: Model Validity**

Variables	Symbols	Normality Shapiro– Wilk	Stationarity ADF test	Collinearity VIF test	Auto- correlation Durbin– Watson test	Heteroscedasticity Breusch – Pagan tes	koenker tes
SR Disclosure	SR	0.000	–18.147***		2.223	0.000	0.000
Audit Committee Financial expertise	FEAC	0.000	–6.557***	2.273		0.000	0.000
Audit Committee size	SZAC	0.000	–6.557***	1.245		0.000	0.000
Audit Committee independence	INDAC	0.000		5.030		0.000	0.000
Audit Committee meetings	METAC	0.000	–4.885***	2.129		0.000	0.000
Bank size	BSZ	0.000	–1.848***	4.188		0.000	0.000
Bank age	AGE	0.000	–4.224***	2.212		0.000	0.000

Note: Significant at: \*\*\*1 percent level

Series stationarity is an assumption commonly used in research that uses time-series data. According to Gujarati (2006), autocorrelation may occur because the time series is non-stationary. This study used the Unit Root test using the parametric test (ADF) to test the time series stationarity. The test results in table III show that the Augmented Dicky-Fuller (ADF) test is statistically significant at the 1 percent level. This means that the time series data used (2015-2019) is stationary.

A good linear model has several critical assumptions, including no dependence between the independent variables. If this assumption is not met, the linear model cannot be validly tested further. For this reason, the Variance Inflation Factor (VIF) value must be assessed. According to Gujarati (2003), a VIF score of higher than 10 is an indication of multicollinearity issue. Table III shows that all independent variables have a VIF value of less than 10. In other words, the research model does not have a serious multicollinearity.

Furthermore, to test the autocorrelation, the Durbin - Watson (D - W) test was carried put. The D-W value in table III (1.5 - 2.5) indicates that autocorrelation is not a problem in this research model. Another assumption that must be met in the regression model is homoscedasticity. The p-value in table III shows values above 0.05, thus indicates that the model fulfils the homoscedasticity assumption.

## 4. RESULTS AND DISCUSSION

This study aims to analyze the effect of audit committee attributes on SR disclosure. Table IV shows that the model understudy is statistically significant. The p-value of the F test of the model is less than 5 percent.

**Table 4: Estimation Results of Model**

Variables	Symbols	$\beta$	t-statistic	Probability
Audit Committee Financial expertise	FEAC	-0.347	-3.016***	0.000
Audit Committee size	SZAC	0.436	2.369***	0.001
Audit Committee Independence	INDAC	0.598	6.501**	0.001
Audit Committee Meeting	METAC	0.111	1.698**	0.040
Bank size	BSZ	0.173	1.592**	0.049
Bank age	AGE	0.401	3.435***	0.000
Audit quality	AQ	0.798	7.993***	0.000

R-squared = 0.837

Adjusted R-squared = 0.833

F- statistic 26.268

p - value 0.000

\*\* and \*\*\* (Significance levels 5 and 1 percent)

Table 4 shows that the audit committee's financial expertise has significantly inverse relationship with the SR. This finding does not support the H1: there is a positive relationship between the audit committee's financial expertise and SR disclosure. This finding is consistent with the research of Buallay and Al-Ajmi (2019). These authors found that the audit committee's financial expertise was significantly negatively associated with sustainability reporting. In other words, these results indicate that financial experts on the audit committee does not influence the level of SR disclosure. However, the finding reported in this present study was contrary to the findings of Mangena & Pike (2005), Barros *et al.* (2013), Bilal *et al.* (2018). Even so, according to Bilal *et al.* (2018), the audit committee still needs expertise in the financial sector because it allows the audit committee to support effective internal control. A possible explanation for the above findings is that decisions regarding SR disclosure in Indonesia's banks are mostly made by the Board of Directors, which has the highest authority rather than the audit committee.

Table 4 shows that the audit committee's size has a positive relationship with SR disclosure. Therefore, H2 is accepted. It is evident that the size of the audit committee affects SR disclosure in banks in Indonesia. The findings of this study are consistent with several studies that noted a positive relationship between the audit committee and voluntary disclosure (Bilal *et al.* 2018). These findings support the resource dependency theory, which states that a larger audit committee size allows more different experiences to be brought to the meeting (Madi *et al.* 2014).

Next, table 4 also indicates that the audit committee members' independence has a significant positive relationship with SR disclosure. Therefore, H3 is accepted. This finding proves that the audit committee's independence in Indonesia bank influences the disclosure level of SR. In other words, the audit committee's independence will have an impact of the practice of SR. The findings are in line with Neifar and Jarbouï (2018). Finally, table 4 proves that audit committee meetings' frequency is positively related to SR disclosure. For that, H4 is supported. These findings prove that the number of meetings held by the audit committee can affect banks' SR disclosure in Indonesia. Therefore, the more frequent meetings are held, it is expected that members' awareness and experience will increase.



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This will further encourage transparency of non-financial information in the SR disclosure. This finding is consistent with the previous studies (Barros *et al.* 2013; Musallam, 2018).

Bank size, the control variable in this study, has a significant positive relationship with SR. This finding provides additional evidence that banks with large total assets tend to be more transparent in providing SR information. This finding is consistent with the literature (Adel *et al.* 2019; Chen, Hung, & Lee, 2017). Another control variable, namely bank age, is also proven to have a positive effect on SR disclosure. This shows that bank age may have influenced on information disclosed in SR. Therefore, the findings of this study provide evidence for both legitimacy and stakeholder theory.

The last control variable, namely, audit quality, is proven to have a positive effect on SR disclosure. This shows that the role of the auditor is significant in encouraging SR disclosure. This finding is consistent with various studies examining the influence of big-four auditors on the quality of both financial and non-financial reports (Gaynor *et al.* 2016; Hussainey, 2009; Hammami & Hendijani Zadeh, 2019).

### 5. CONCLUSIONS

This paper reported an empirical investigation on the relationship between audit committee's attributes and SR disclosure of commercial banks in Indonesia from 2015 to 2019. The results showed that size, independence, and frequency of audit committee meetings had a significant positive effect on SR disclosure. In contrast, the audit committee's financial expertise has a negative effect on SR disclosure. These findings imply that the banks should increase their attention to the audit committee's attributes as an effective measure to have quality SR disclosure that met stakeholder expectations. This paper has significant contribution to the literature of SR since the issue of sustainability reporting has become as recent growing issues among researchers and practitioners globally. Future research can be carried out by expanding the number of banks, or comparative study between developing and developed countries. This would strengthen the literature. In addition, further researchers on SR may involve other sectors than banks. Different sectors may report different findings in relation to the audit committee's function as such the sectors that highly related to the sustainability issues.

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## EARNINGS MANAGEMENT AND ITS DETERMINANT (STUDY OF LISTED COMPANIES ON INDONESIA STOCK EXCHANGE)

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### Abstract

*The study aims to identify the determinant factors that affecting earning management practices of companies. We used firm size, age, leverage (DER) and profitability (ROA) as independent variables in term of earnings management detection. There were 344 listed companies in Indonesian Stock Exchange at the year of 2017 and 2018, thus there were 688 observed companies as samples. Purposive sampling and multiple regression were employed as sampling and analysis method, respectively. The results show that firm size, age and ROA have a significant effect toward earnings management, whilst DER has no significant effect towards earning management. In addition, earnings management detection provides information to investors and potential investors in decision making process.*

**Keywords:** *earnings management, firm size, age, DER, ROA*

### 1. INTRODUCTION

Profit is a fundamental and important part of financial reporting in various contexts. Profits are generally seen as the basis for taxation, a determinant of dividend payment policies, guidance in carrying out investments and decision making, and an element in forecasting (Belkaoui, 2007). Profit is a measurement of performance of a company summary based on accrual-based accounting. Earnings information on financial statements is generally the main concern in estimating performance or seeing management accountability (Bestivano, 2013). However, earnings information is often used as manipulation target through opportunistic actions by management to maximize its satisfaction due to the tendency of those who pay attention to profit and this is realized by management, especially managers whose performance is measured based on the earnings information, thus encouraging actions to manage earnings (Savitri, 2014). This behavior is influenced by the presence of asymmetry information in the concept of agency theory. An agency conflict will arise if each party, both the principal and the agent (manager), has different interests to strive their respective interests. Both the agent and principal aim to maximize their profits, thus the gap is used by managers to manage earnings.

Earnings management is a concept implemented by companies in managing financial reports purposes to appear to high quality report (Wildani, 2008). Therefore, management has a tendency to expose appropriate financial reports, even more serious if they modify the reports on purpose in regard their personal interest, such as to maintain a position or get high bonuses. A stable profit does not fluctuate much from one period to another, so it is considered a good achievement. We can employ several factors in detecting earnings management practices in a company, including firm size, age, leverage, and profitability.

Firm size is measured using the total assets, income or capital of the company. Total assets can be used to show how big a company is, if a company has large total assets, the company more able to earn profits than smaller total assets company. The firm age is the age from its establishment year until current observation year. Theoretically, long-established companies will be trusted by shareholders (investors) rather than newly established companies due to long established companies are assumed to be able to earn higher profits than newly established companies (Agustia, 2018). Leverage is used to measure how much the company is financed with debt. Debt is needed to gain benefits greater than the cost of assets and sources of funds (Bestivano, 2013). Leverage is proxied to debt to equity ratio (DER). Moreover, profitability is measured by Return On Assets (ROA). ROA is



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able measure the ability of a company to invest in assets used to earn profits (Munawir, 1992). Therefore, the study purposes to identify the relationship between company size, company age, leverage, profitability to earnings management. The samples used in this study are listed companies on Indonesian Stock Exchange (IDX) in 2017 and 2018.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Agency Theory

The theory that underlies this research is agency theory. Agency theory can be perceived as a version of game theory (Mursalim, 2005), which creates a contractual model between two or more people (parties), whereas one party is called an agent and the other is called a principal. The principal delegates responsibility for decision making to the agent, it can also be said that the principal gives the agent a mandate to carry out certain tasks in accordance with the agreed work contract. The powers and responsibilities of both the agent and the principal are regulated in a work contract with mutual consent.

Scott (2000) states that a company has many contracts, for example a work contract between the company and its managers and a loan contract between the company and its creditors. Agent and principal aims to maximize the utility with their internal information. Meanwhile, the agent has more information than the principal that boosting increase to information asymmetry. More information that managers have, trigger actions regarding the desire and interest to maximize their utility. Meanwhile, to investors, it will be difficult to control effective actions taken by management due to less information gained. Therefore, sometimes certain policies are carried out by company management without the knowledge of the owners of capital or investors.

#### Earnings Management

Earnings management is a smoothly manipulation of financial reports within certain limits that does not break the financial reporting standards. It is played by management using its authority to select the accounting method permitted by the standard. Managers have the flexibility in selecting accounting methods and policies from a variety of alternative methods and policies. According to Scoot (2000), earnings management actions can be taken in various forms. Some of the patterns used by managers in earnings management include:

- a. Increasing income by accelerating the recording of income, delaying costs and transferring costs for other periods to increase profits.
- b. Income Minimization is carried out when the profitability of a company is extremely high in order to reduce the possibility of political costs.
- c. Taking a bath which is also called the big bath. It can occur during periods of stress within the organization or reorganization, such as a CEO replacement.
- d. Income smoothing, which is intentionally reducing or increasing profits to reduce volatility in the earnings report, so that the company less risky and appear financially stable.

We used total or observed accruals (TAC) in term of measuring the earnings management practice of a company. Accruals are generally defined as the difference between the reported income and the cash flow and represent the cumulative effect derived from introducing the accrual basis in the conventional accounting model (Mendes et al., 2012).

#### Firm Size

Company size is a scale in which the size. Size of the company can be classified in various ways, including total assets, log size, sales, and market capitalization. A larger company which the shares



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are vastly spreaded will be more willing to issue new shares to meet its needs to finance sales growth than a smaller company. Thus, the larger the company size the greater the tendency to employ external funds. This is because large companies have large funding needs and one alternative to fulfill their funds is by using external funds, such as debt. The larger size of the company the higher tendency to use larger debt to meet its funding needs than the small companies therefore bigger company tends to manage their earnings (Riyanto, 2010). Firm size is a variable that is measured from the total assets. The total amount of the assets of a company, further it is transformed into a natural logarithm (Ln).

H1: Firm size has a significant effect to earnings management

### Age

The age of the company used is the age since its establishment until the company has been able to run its operations. Theoretically, long-established companies will be trusted by shareholders (investors) rather than newly-established companies due to its ability to earn higher profits than newly-established companies. As a result, newly-established companies hard to obtain funds in the capital market and require them to rely on their own capital (Zen and Herman, 2007). long-established companies tend to manage their earnings because they experiencing the financial management of a company longer than newly-established companies.

H2: Age has a significant effect to earnings management

### Leverage

The leverage ratio measures how much a company is financed by debt. The use of leverage is intended so that the benefits obtained are greater than the cost of assets and sources of funds. Thus the use of leverage will increase profits for shareholders. Conversely, leverage can also increase the risk of profit. If the company gets a lower profit than its fixed costs, the use of leverage will reduce shareholder profits (Harjito and Martono, 2014). In this study, leverage is measured using a debt to equity ratio known as the financial leverage ratio by dividing total liabilities to total assets. In addition to describing the level of debt use in capital structure of a company which able to provide a higher rate of return, the debt to equity ratio can also describe the risk of investing in a company, this is because the debt to equity ratio describes the extent to which owner's capital can cover debts to a company. outsiders. The high debt to equity ratio or financial leverage ratio reflects the high financial risk of the company. Therefore higher leverage increase the tendency of management to manage their earnings.

H3: Leverage has a significant effect to earnings management

### Profitability

Profitability is the level of net profit that the company succeeds in carrying out its operations. In relation to earning management, profitability can influence managers to carry out earnings management. Because if the profitability of a company is low, managers will generally take earnings management actions to save their performance in the eyes of the owner. The return on assets (ROA) profitability ratio can be used as a measure of the rate of return generated by organizational assets (Atkinson et. Al, 2004) or how the ability of a company to increase net income based on certain asset levels. The higher the ratio obtained, the more efficient the asset of a company. Thus, ROA is used to perceive how much the combined effect of margin and asset turnover is (Higgins, 2004). ROA is calculated by dividing net income to total assets.

H4: Leverage has a significant effect to earnings management



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### 3. RESEARCH METHOD

#### Population and Sample Research

The population in this study are all companies listed on the Indonesian Stock Exchange (IDX) in year 2017 and 2018. There are 344 companies listed on the IDX. The sampling technique used is purposive sampling with the following criteria:

- a. Listed on the IDX in 2017 and 2018;
- b. Consistently issue financial reports and annual reports during the research year period;
- c. Have complete data needed in the study during the research period.

#### Data Analysis Technique

This study used quantitative and qualitative approaches to analyse data obtained from a particular population or sample. The data used in this study are secondary data in the form of *financial reports* on companies listed on IDX. Panel data regression has been employed to test the hypothesis. Ajija et al (2011) stated that the advantage of panel data is it has implications for the data that does not have to test classical assumptions in the panel data model because research using panel data allows the identification of certain parameters without the need to make strict assumptions or do not require the fulfilment of all classical assumptions of linear regression such as Ordinary Least Square (OLS). There are three approaches to the panel data method in determining the panel data regression model estimation technique, namely the F test, Chow test, and Hausman test. Two approaches that are often used to estimate regression models with panel data are the Fixed Effect approach and the Random Effect approach. The F test Chow test can be used to determine the method between the PLS and FE approaches, while the Hausman test can be used to determine the Random Effect and Fixed Effect approaches.

The regression model used in this study is as follows:

$$YEM_{it} = \alpha + \beta_1 \text{Size}_{it} + \beta_2 \text{Age}_{it} + \beta_3 \text{DER}_{it} - \beta_4 \text{ROA}_{it} + \varepsilon$$

Whereas,

$\alpha$  = Constant

$\beta$  = Coefficient

YEM = *Earnings Management*

Size = Company Size

Age = Company Age

DER = Leverage

ROA = Profitability

$\varepsilon$  = *Error Term*

it = Institutional (Company), Time (Time)

Testing the research hypothesis is done by conducted the test below:

- a. Determination Coefficient Test (R<sup>2</sup>)

The coefficient of determination (R<sup>2</sup>) is used to measure how much the independent variable can explain the dependent variable. This coefficient is used to show how much the total variation in the dependent variable can be explained by the variables in the regression model. The value of the determinant coefficient is 0 to 1, the value of R<sup>2</sup> is close to 1, indicating that the variables in the model can represent the problems studied because they can explain the variations that occur in the dependent variable. If the R<sup>2</sup> value is close to zero, it shows that the variables in the model formed cannot explain the variation in the dependent variable.



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### b. Simultaneous Regression Test (Test F)

Simultaneous regression test is useful to determine whether all independent variables can jointly affect the dependent variable. The hypotheses that can be formulated are:

Ho : There is no effect simultaneously from the independent variable on the dependent variable

H1 : There is a simultaneous effect of the independent variable on the dependent variable

In conducting simultaneous regression testing (F test), it can be done by making an effort to compare the F count to the F table with known  $\alpha = 5\%$ , if:

- F count is greater than F table, so all independent variables together will have a significant effect on the dependent variable.
- F count is smaller than F table, so all independent variables together will not significantly influence the dependent variable.

### c. Partial Regression Test (t test)

The hypothesis testing will be carried out in this study using a two-tailed hypothesis test. The formulation of a partial regression test using a two-way hypothesis is to see whether or not there is a relationship between the independent variable and the dependent variable individually. The hypothesis will be formulated as follows:

Ho : There is no significant effect individually from the independent variable on the dependent variable.

H1 : There is a significant effect individually from the independent variable on the dependent variable.

The testing is done by comparing the t table with the t count with the provisions  $\alpha = 5\%$  (two tail) if:

- t count is greater than t table, the independent variable has a significant effect on the dependent variable.
- t count is smaller than t table, so the independent variable does not have a significant effect on the dependent variable.

## 4. RESULTS AND DISCUSSION

### Determinant Coefficient

**Table 1: Determinant Coefficient**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	df1
1	.338 <sup>a</sup>	.114	.109	2934860794.976 53	.114	21.978	4

The coefficient shows a value of 0.114 or 11.4% in ratio (Table 1.). It indicates that changes in variations in earnings management are influenced by the independent variables tested.

## F-Test

**Table 2: F-Test Results**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	75721875633604 3400000	4	18930468908401 0860000.000	21.978	.000 <sup>b</sup>
	Residual	58829575860630 41000000	683	86134078858902 49700.000		
	Total	66401763423990 84000000	687			

Refer to Table 2. F-test result shows that firm size, age, leverage and profitability simultaneously affect earnings management. The result of the F-test shows a significant value of 0.000 (<0.05). It indicates that the independent variables, namely firm size, age, leverage, and profitability simultaneously have a significant effect to the dependent variable, namely earnings management on listed companies at Indonesian Stock Exchange circa 2017-2018.

## T-test

**Table 3: T-Test Results**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	9806173053	1309641063		7.488	.000
	Size	-483372997	59524988	-.296	-8.121	.000
	Umur Perusahaan	-1313141.983	607955.030	-.078	-2.160	.031
	DER	-3851519.489	5145500.444	-.027	-.749	.454
	ROA	35075820.362	13939036.053	.091	2.516	.012

Refer to Table 3. the result of t-test shows that the coefficient of firm size is -0.296 (significance level of 0.000<0.05), it indicates that H1 is accepted. The relation between firm size and earnings management is negative significant, the smaller size of a firm the higher tendency of earnings management practices appear. This result is in line with several previous studies. The research conducted by Rice (2016), Handayani and Rachadi (2009) stated that company size has an effect on earnings management practices . Marrakchi (2001) in the United States using a sample of industrial firms in 1996 found that firm size has a negative relationship with earnings management. Companies are more substantial lack the urge to perform earnings management than small companies, because large companies are seen as more critical by the shareholders and external parties. Veronica and Siddharta (2005) observed BEJ (hereafter BEI) in the period of 1995-1996 and 1999-2002, has revealed that firm size has a significant negative relationship to earnings management. It indicates that earnings management done by small firms are not efficient. Therefore, the smaller the size of a company, the more control needs to be done by the regulators of small companies. Since there is a possibility, not all larger companies are increasingly to open opportunistic earnings management for earnings management in large companies that have been planned more than just using the accrual policy, making it more difficult to detect (sirat, 2012).



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Based on Table 3, the age coefficient shows negative coefficient (-0.78) with a significance level of 0.000 ( $<0.05$ ). These results indicate that H2 is accepted. In the theoretical long-established company will be trusted by investors rather than a newly-established company, because long-established company is assumed to be able to earn a higher profit than the new comer. As a result, newly-established companies will find it difficult to obtain funds in the capital market and require them to rely on their own capital (Zen and Herman, 2007).

The t-test results show that Leverage has a significance value of 0.454 which is greater than the level of confidence of 0.05. It indicates that H3 is unaccepted. This means that leverage is not an indication that a company will practice earnings management. This is probably because the amount of debt that can be confirmed in the audit process makes company management unable to carry out earnings management and companies with larger capital from loans will be closely monitored by debtors thus the company will find it difficult to carry out earnings management.

The results of the t-test show that the profitability which measured by ROA has a positive coefficient value (0.91) with a significance level of 0.012 ( $<0.05$ ). It indicates that H4 is accepted, profitability has a significant effect on earnings management. The results of this study are consistent with the research of Widyastuti and Guna and Herawati (2010) who found a positive relationship between profitability and earnings management. The greater the value of the profitability of a company, the greater the possibility of earning management practices. This is because the higher the profitability of the company, the greater the tax that must be paid by the company. Therefore the company manages its profits by reducing profits to reduce the tax burden that must be paid (Yunietha and Palupi, 2017).

### 5. CONCLUSION

The study purposes to identify the relationship between company size, company age, leverage, profitability to earnings management. The samples used in this study are listed companies on Indonesian Stock Exchange (IDX) in 2017 and 2018. Based on the aforementioned, it can be concluded that firm size, age and profitability have a significant effect to earnings management. Whilst, leverage which measured by DER does not have a significant effect to earnings management practices. The limitation is the sample obtained from two-year periods and four independent variables. Further research can extend the research period and variables to gain robust results such as institutional ownership, net profit margin and free cash flow and other variables.

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## CONTAGION EFFECT OF CAPITAL MARKET ON TOP-10 EUROPEAN UNION COUNTRIES WITH THE MOST CASES OF COVID-19

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### Abstract

Purpose of this study is to empirically prove the return index on the capital market of the Top-10 European Union countries with the most Covid-19 cases, namely Spain (Madrid), Italy (Italy 40), France (CAC 40), Germany (DAX), The Netherlands (AEX), Belgium (Bel 20), Romania (Bucharest), Poland (WIG 20), the Czech Republic (OETOB) and Sweden (OMX) influenced each other significantly during the COVID-19 pandemic period January - September 2020. This study using a quantitative approach. The population in this study is the composite stock price index from the capital market. This study uses the Granger Causality Test to see if there is a relationship that indicates a contagion effect. The results of this study indicate that not all countries in the European Union with the most Covid-19 cases affect each other significantly. The Italian capital market is the capital market that most influences the capital markets of these countries. The limitations of this study are the limited time and the Covid-19 outbreak that has not been completed until this research was conducted.

**Keywords:** Contagion Effect, Return, Granger Causality Test

### 1. INTRODUCTION

The capital market according to the Capital Market Law No. 8 of 1995 is an activity concerned with public offerings and securities trading, public companies related to securities issued and institutions and professions related to securities, the capital market has an important role in the economy of a country and is an alternative to the financial sector apart from banking. In addition, the capital market is a means by which investors achieve their main objective of investing, namely to make a profit. Before investing, investors need to ensure that the investment to be made can provide the expected rate of return (Adhisiawan and Ahmadi, 2018). According to (Zulfitra and Tumanggor, 2020) The capital market is a means of information that is used as a basis for investing. In addition, the information required by investors is generally related to microeconomics and macroeconomics. The risks faced by investors are divided into two, namely systematic risk and non-systematic risk. Unavoidable risks are systematic risks, which are risks that occur at a macro level, such as inflation risk, currency exchange rates and interest rates.

According to (Suganda and Soetrisno, 2016) The stability of the country's economy is also determined by events that occur both domestically and externally. Major events that fluctuate in other major countries also affect the nation's economic conditions which in turn have an impact on stock price movements and capital market integration in certain regions. In recent years, there have been major crises categorized as a systematic risk affecting the world economy, namely the global financial crisis that occurred in the United States in 2008, the Greek financial crisis in 2010 and the outbreak of the Corona or Covid-19 virus in China which then spread all over the world. Economic events that occur in other countries can have a *contagion effect* to other countries, and this also does not rule out the impact on countries in the European region.

On December 31, 2019 for the first time the World Health Organization (WHO) in China received information about a new type of virus whose cause was unknown. The virus that attacks the lungs was first detected in the city of Wuhan, Hubei Province, China. According to Chinese government data, a 55-year-old resident of Hubei Province is likely to be the first person to contract Covid-19 on November 17, 2019. Since then, new similar cases have started popping up every day. Covid-19 spreads so fast throughout the world and turned into a horror pandemic that is so frightening to the



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world community. Until this research was conducted, around 188 countries had contracted this virus with a total of 41,088,902 cases with a total of 1,128,701 deaths worldwide. Covid-19, which spreads so quickly that it has had a devastating impact on the world's economy, from trade, tourism, and even stock exchanges in each country have been shaken by this incident.

Italy is the first European country to be affected by the Corona virus and is the first country to impose a national lockdown. The first known case other than a tourist partner from China is a patient in the town of Codogna in the Lombardy region. Until February 21, the Italian government appointed Codogna as the Covid-19 Red Zone city and was followed by 9 other cities. This virus spread so quickly throughout the countries in the European Union. Where Spain is the European Union country with the most Covid-19 cases with a total of 988,322 cases to date with a total of 34,210 deaths. The number of deaths from the virus in the European Union is five times lower than in March and April. The rate of spread of the virus is very fast in the European Union, the Czech Republic has the highest infection rate in Europe, the number of cases has doubled in October. The spread of the virus is predicted to increase if European governments relax restrictions.

According to (Harjitno, 2010) The economy among countries is already integrated. This is shown by the mutual influence of the economic conditions of one country on other countries. Therefore, in a short time the corona virus outbreak that occurs in China will affect the economy to other countries in the world including European Union countries. The spreading effect of the economic crisis is often called the Contagion effect. This contagion effect can occur in various fields, both economically and financially. Crises in the financial sector such as fluctuations in stock prices that occur in the capital market have an impact on decreasing fluctuations in *returns* stock, which in turn will have an effect on patterns *abnormal return* stocks as a measure of the performance of the concerned stock.

According to (Adisetiawan and Ahmadi, 2018) In addition to the current corona outbreak which has had a major impact on the capital market, there have been several crises that have occurred which have had a major impact on world capital markets, among others. The US crisis that occurred in 2008 had a negative impact on stock exchanges in various countries. In addition, the crisis that occurred in European Union countries in 2010 was a debt crisis in European countries that originated in Greece, which caused a domino effect and shook the economies of European countries. In addition, in 1997, almost all ASEAN countries experienced an economic crisis, starting with Thailand, which experienced difficulties as a result of the country's growing current account deficit during the last five years or so. This situation was exacerbated by the deteriorating performance of the Thai banking system as a result of large unresolved bad loans. Then this crisis spread to other ASEAN countries such as Philippines, Malaysia, Singapore and Indonesia. The fall in the exchange rate of course had a negative impact on the capital market which was affected by the crisis.

The facts that have been described can be seen that every crisis that occurs in one country will have a negative impact on other countries. This indicates that these countries have integration in the economic sector and provide allegations of an influence and influence relationship or what is better known as the *contagion effect*. The contagion effect is a phenomenon when a financial crisis that occurs in a country will trigger a financial or economic crisis in another country (Trihadmini, 2011). The *contagion effect* occurs when there are *trade links* and common macroeconomic conditions and policies (Harjito, 2010). The *contagion effect* can occur for all events in various fields, both economic and financial crises. Crises in the financial sector such as stock price fluctuations that occur in a capital market have an impact on the decline in fluctuations *return* stock and ultimately affect the pattern *abnormal return* as a benchmark for the performance of the relevant shares, because there is an indication of a *contagion effect* at the time of the crisis. testing whether there is a relationship of mutual influence and influence at the time of the Covid-19 outbreak in China among the top-10 countries in the European Union with the most Covid-19 cases using the *Granger Causality test*. The *Granger Causality test* is used to determine the direction of causality that occurs among the top-10 in the European Union with the most Covid-19 cases at the time of the corona virus outbreak in 2020 with the observation period used is 2020.1 - 2020.9.



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The object of this research is the capital market in the Top-10 countries in the European Union with the most cases of corona. These countries are Italy, Spain, France, Germany, the Netherlands, Belgium, Romania, Poland, the Czech Republic and Sweden. This research is very interesting to study with the aim of proving empirically whether there is an effect of transmission during the corona outbreak on the capital market in the Top-10 Covid-19 cases in the European Union.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Contagion Effect

(Yang, 2002) reveals that a contagion in a broad sense is a shock that is transmitted across national borders, or the occurrence of interplay between several countries. Contagion can occur in normal or crisis conditions. Second, the transmission of a shock across national borders or in general the occurrence of significant inter-country correlations occurring outside some fundamental channels. Third, relate contagion to a phenomenon where the correlation between countries increases during a crisis period compared to the correlation in a normal economic period.

According to (Lee, 2012) there are 3 definitions of the *Contagion Effect*, including: *Board Defination* is a shock or problem that has passed through state boundaries or the occurrence of interplay between several countries. *Contagion* can occur under normal conditions or in crisis. *Restrictive Defination* is a continuation of a shock that crosses national borders or in general there is a significant relationship between countries that occurs outside of several fundamental channels. *Very Restrictive Defination* is connecting the *Contagion* with a phenomenon when relations between countries increase during a crisis period compared to relations when the economy is running normally.

Based on this definition, there are four criteria that can be used to see the presence or absence of a *Contagion Effect*, namely first through the correlation of asset prices, secondly through *conditional probability* of currency crises, third through transmission, and fourth to see changes in volatility or movement of capital flows. According to (Cecchetti, 2010) in his book "*Money, Banking, and Financial Market (2nd Edition)*" states that the *Contagion Effect* is a phenomenon of spreading panic among investors. This is because investor behavior can also be the cause of the *Contagion Effect* in the capital market, for example the behavior of investors who often do not have a complete picture of conditions in each country so that they get incorrect or imperfect information. This is the cause of a crisis that occurs in a country which can cause investors to think that other countries are also facing the same problem. As a result, investors will start selling their assets to other countries that are considered safer from the effects of the crisis.

#### Capital Markets

Capital Market or the capital market is a market for a wide range of financial instruments large or long-term that can be traded, such as bonds, stocks, mutual funds, derivatives and other instruments. Capital Market is also referred to as a means of funding for companies and other institutions such as the government, and as a means for various investment activities. Or in other words Capital Market is a facility for various facilities or infrastructure for buying and selling activities and other related activities. Definition of Capital Market according to Presidential Decree No. 52 of 1976 explains that the Capital Market is a stock exchange as defined in the Law. No. 15 of 1952. According to the law, it is stated that the stock exchange is a building or room that is used as a place and office for securities trading activities (www.idx.co.id, 2020).

**Role and Benefits of Capital Markets** In general, the roles and benefits obtained from the capital market according to the Financial Services Authority (2016) are: The capital market is a vehicle for allocating funds efficiently. Investors can invest in several companies by purchasing securities that have just been offered or traded on the capital market. On the other hand, companies can obtain the funds needed by offering long-term financial instruments through the capital market; The capital



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market as an alternative to investment in the capital market facilitates investment alternatives by providing benefits with certain risks; Enable investors to own a company that is sound and with good prospects. A company that is healthy and has good prospects should not only be owned by a certain number of people, because the widespread distribution of ownership will encourage the company's development to be more transparent.

### Previous Research

Research referred to in this study were as follows:

1. Research conducted by (Pratiwi, 2013) entitled Contagion Theory approach to the Dubai Crisis tries to examine the effect of the Dubai crisis on stock returns in Indonesia, Malaysia, Singapore, Thailand, and Philippines (*Contagion Theory*). Based on the analysis conducted, it is known that Dubai's stock price has an effect on Malaysian stock prices on the third day with a significance level of 10%. Malaysia share price affects Singapore stock price on the third day with a significance level of 1%. In addition, Malaysian stock prices have an effect on Thai stock prices on the first day with a significance level of 10%.
2. Research conducted by (Adisetiawan and Ahmad, 2018) entitled Contagion Effect Between ASEAN-5 Countries examines the influence of the United States Crisis on capital markets in Indonesia, Malaysia, Singapore, Thailand, and the Philippines, starting from 2001.1 to 2018.5. The results of this study concluded that not all ASEAN countries influenced each other during the study period. Countries that influence each other only occur in Indonesia and Thailand.
3. Research conducted by (Suganda and Soetrisno, 2016) entitled Integration Test and Contagion Effect of Capital Markets in Five ASEAN Countries resulted in capital market integration in several countries in the ASEAN region after the Subprime Mortgage crisis and post-Greek financial crisis. And there is a *contagion effect* in several countries in the ASEAN region after the *Subprime Mortgage* crisis and after the Greek financial crisis.
4. Research conducted (Harjito 2010) entitled Seasonal Changes (*Seasonality*) Capital Markets and Effects *Contagion* in ASEAN Countries. This study examines the problem of the effect of transmission on the capital market in ASEAN countries. This research that there is a transmission effect on the capital market in these countries.
5. shows Research conducted (Zulfitra and Tumanggor, 2020) entitled Capital Market Reaction, LQ45, *Index Consumer Goods*, *Index Manufacture* and *Index Finance Index* during the Covid-19 April 2020 Pandemic in Indonesia. The results of this study indicate that the Covid-19 pandemic has a significant impact on the stock price of the LQ45, the *Index Consumer Goods*, the *Index Manufacture* and the *Index Finance Index*.
6. The research conducted (Chen et al, 2018) examined the long-term relationship of the SARS impact on the Chinese Stock Exchange and four Asian stock markets. Chen et al (2018) use cointegration variance to test the relationship between these market stock markets. The results show that the SARS epidemic weakens the long-term relationship between the China Stock Exchange and the four Asian Stock Exchanges.
7. Research conducted by (Ru et al, 2020) describes the reaction of the global stock market to the COVID-19 outbreak caused by the SARS-CoV-2 virus.
8. Research conducted (Tan, 2014) on capital market integration and contagion effects in several countries in the ASEAN region with a study of data on the period after the Asian monetary crisis in 1998 and the period after the global financial crisis in 2008. This research concludes that throughout the study period ( January 1997 - December 2013) This integration of the capital market continues after the Asian financial crisis in 1997 and after the global financial crisis in 2008.
9. Research conducted by (Trihadmini, 2011) entitled *Contagion* and *spillover effect* the global financial market as an *early warning system* resulted in a *contagion effect* from *mature markets* to *emerging markets* and the *spillover effect* did not occur between JCI volatility and exchange rate volatility and between volatility *Dow Jones* with JCI volatility

### Hypothesis

To obtain empirical results from this study, existing hypotheses need to be established and tested. The research hypothesis is prepared based on the existing problem formulations, so that the



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hypothesis in this study can be drawn, namely: the *return index* of each of the top-10 countries in the European Union with the most Covid-19 cases (Spain, Italy, France, Germany, the Netherlands, Belgium, Romania, Poland, Czech Republic and Sweden) influence each other significantly.

### 3. RESEARCH METHODOLOGY

This research is a quantitative study. Quantitative research is a research method that is based on the philosophy of positivism and is used to examine specific populations or samples, data collection using research instruments, quantitative / statistical data analysis with the aim of testing hypotheses that have been established in a study (Sugiyono, 2016). Population is the total number of objects to be studied. According to (Sugiyono, 2017), population is a generalization area consisting of objects / subjects that have certain qualities and characteristics that are determined by the researcher for research and conclusions. In this study the population used was the daily data composite index of ten countries: Spain (Madrid), Italy (Italy 40), France (CAC 40), Germany (DAX), the Netherlands (AEX), Belgium (Bel 20), Romania (Bucharest), Poland (WIG 20), Czech Republic (OETOB) and Sweden (OMX) which represent shares listed on the stock exchanges of each country.

According to (Agung and Yuesti, 2017) Samples are part of the population taken in certain ways, which also have certain, clear and complete characteristics that are considered to be representative of the population. The sample used in this study was the data for the daily *closing price index* of composite ten countries: Spain (Madrid), Italy (Italy 40), France (CAC 40), Germany (DAX), the Netherlands (AEX), Belgium (Bel 20), Romania (Bucharest), Poland (WIG 20), Czech Republic (OETOB) and Sweden (OMX) 2020.1-2020.9. The type of data used is secondary data, which is data obtained indirectly through intermediary media or usually collected by data collection agencies. The secondary data needed in this study were obtained from the website [m.id.investing.com](http://m.id.investing.com). The

Sampling technique was to use the saturated sampling method. According to (Sugiyono, 2014) saturated sample is a sampling technique if all populations are used as the sample. This is because the population used in this study is relatively small, namely less than 30 research populations. While the data collection technique was carried out by recording the daily closing prices of the composite index of the ten countries with the most cases of corona in the European Union: Spain (Madrid), Italy (Italy 40), France (CAC 40), Germany (DAX), the Netherlands (AEX), Belgium (Bel 20), Romania (Bucharest), Poland (WIG 20), Czech Republic (OETOB) and Sweden (OMX) 2020.1-2020.9.

#### Data Analysis Method

After all the required data is obtained, the next step is to find the stock return value. After the stock return data is obtained, the next step is to equalize the number of working days between one country and another with the assumption that all countries selected as countries to be studied have the same working days. If any country has a holiday while in another country it is a working day then all countries will be considered a holiday. The data analysis techniques required are as follows:

1. Calculating *Return Daily*.
2. Descriptive Statistical Analysis Descriptive

analysis is statistics used to analyze data by explaining or describing the data that has been collected as it is without intending to make generalized conclusions or generalizations (Sugiyono, 2014).

3. Test *Unit Root Test*

Method stationary test carried out by the unit root test which is done by using Augmented Dickey Fuller test (Robiyanto, 2018). Augmented Dickey Fuller test is needed for data to be stationary. Given that in this study the data used are *time series data*. *Time series* tends to be *non-stationary* because the time trend of the observation is linear or exponential (Ahmadi, 2018). In this research, the data must be stationary as an important requirement in the time series time series data model. Augmented dickey fuller has the equation:

$$\Delta Y_t = \theta Y_{t-1} + \alpha_i \sum_{i=1}^m \Delta Y_{t-1} + \varepsilon_t$$

where:  $Y_t$  = the variable under study;  $\theta$  = regression coefficient;  $t$  = period;  $m$  = lag length; and  $\varepsilon_t$  = error term. By using a table in accordance with one of the time series models, the hypothesis to be tested is:

H<sub>0</sub>:  $\delta = 0$ , the model is not stationary

H<sub>a</sub>:  $\delta \neq 0$ , the model is stationary

If it does not reject the hypothesis  $\delta = 0$ , then  $p = 1$ . This means that it has a unit root, where the time series data is not stationary. *The null hypothesis* which states that there is no stationary characteristic in the model will be rejected, if the t-statistic value obtained is related to the regression coefficient of this model is smaller than the t-table value at a certain significant level. If the resulting probability value is smaller than  $\alpha = 5\%$ , then H<sub>0</sub> or H<sub>a</sub> rejection is accepted, which means the data is stationary. Conversely, if the probability value is greater than  $\alpha = 5\%$ , then there will be acceptance of H<sub>0</sub> which indicates that the data is non-stationary, so there will be one time differencing (Ahmadi, 2018).

#### 4. Methods of *Vector Auto Regression (VAR)*

Method of *Vector Auto Regression (VAR)* is a method for analyzing a relationship between variables that are not based on the particular theory (Widarjono, 2016). In this VAR method, there is no need to distinguish between endogenous and exogenous variables because in this VAR method all variables are believed to be interrelated. VAR is a system of equations that shows each variable as a linear function of the constant and the value *lag* of the variables that exist in the system. In the VAR model, all variables used in the analysis are considered to have the potential to become endogenous variables, by ignoring the separation between exogenous and endogenous variables or in another sense, namely that all variables have the right to become variables *dependent* and *independent* (Ahmadi, 2018). The general model for VAR is as follows :

$$X_t = \mu_{t+i} + X_{t-1} + \varepsilon_t$$

Where:  $X_t$  = vector of endogenous variable with dimension (nx 1);  $\mu_t$  = vectors of exogenous variables, including constants (intercept) and trends;  $A_i$  = dimension matrix coefficient (nxn); and  $\varepsilon_t$  = vector of residuals.

##### a. **VAR Model Stability**

Test This test will be carried out by method *trial and error* where the *lag* to be selected through a series of experiments reaches *thelag* maximum that the model can no longer accept or that makes the model unstable. Through VAR *stability condition* check, by calculating the function polinomial roots or *roots of characteristic* polinomial. If all the roots of the polinomial function are in the unit *circle* or if the absolute value is  $<1$  then the VAR model is considered stable (Ahmadi, 2018)

##### b. **Test Optimum Lag**

Test *optimum lag* performed to obtain the *lag* appropriate for use in the causality *granger* test. This test is carried out to determine length *lag* the optimal used in the model. Determination of the amount of *lag* optimal to be used in the model *granger* can be determined based on the criteria of *Akaike Information Criterion (AIC)*, *Schwarz Information Criterion (SC)* and *Hannan Quinnon Criterion (HQ)*. Determination of the optimal lag length is obtained from the VAR equation with the smallest AIC, SC or HQ values (Ahmadi, 2018). The formulas for calculating AIC, SC and HQ values are:

$$AIC = -2 (l / T) + 2 (\kappa / T)$$

$$SC = -2 (l / T) + \kappa \log (T) / T$$

$$HQ = -2 (l / T) + 2\kappa \log (\log (T)) / T$$

#### 5. **Pairwise Granger Causality Test The purpose of the Granger**

Causality test is to examine whether X precedes (causes) Y or Y precedes X, or the relationship between X and Y is reciprocal (two directions), or between X and Y there is no relationship at all



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(Ahmadi, 2018). While the equations used to perform testing *Granger* Causality, can be written as

$$Y_t = \sum_{i=1}^m \alpha_i X_{t-1} + \sum_{j=1}^n \beta_j Y_{t-1} + v_t \text{ follows: } X \rightarrow Y$$

$$X_t = \sum_{i=1}^r \alpha_i X_{t-1} + \sum_{j=1}^s \beta_j Y_{t-1} + \mu_t; X \rightarrow Y$$

The regression results of the equation, four possible regression coefficient values will be generated, each coefficient value is:

- If statistically  $\sum_{i=1}^m \alpha_i \neq 0$  dan  $\sum_{j=1}^n \beta_j = 0$ , then there is a one-way (*causality unidirectional causality*) from (x) to (y).
- If statistically  $\sum_{i=1}^r \alpha_i = 0$  and  $\sum_{j=1}^s \beta_j \neq 0$ , then there is a one-way (*causality unidirectional causality*) from (y) to (x).
- If statistically  $\sum_{i=1}^m \alpha_i = 0$  and  $\sum_{j=1}^n \beta_j = 0$ , then between (y) to (x) do not influence each other (*independence*) or are not significant between one another.
- If statistically  $\sum_{i=1}^m \alpha_i \neq 0$  dan  $\sum_{j=1}^n \beta_j \neq 0$ , then between (y) to (x) there is a causality relationship (*feedback* or *bilateral causality*) between one another.

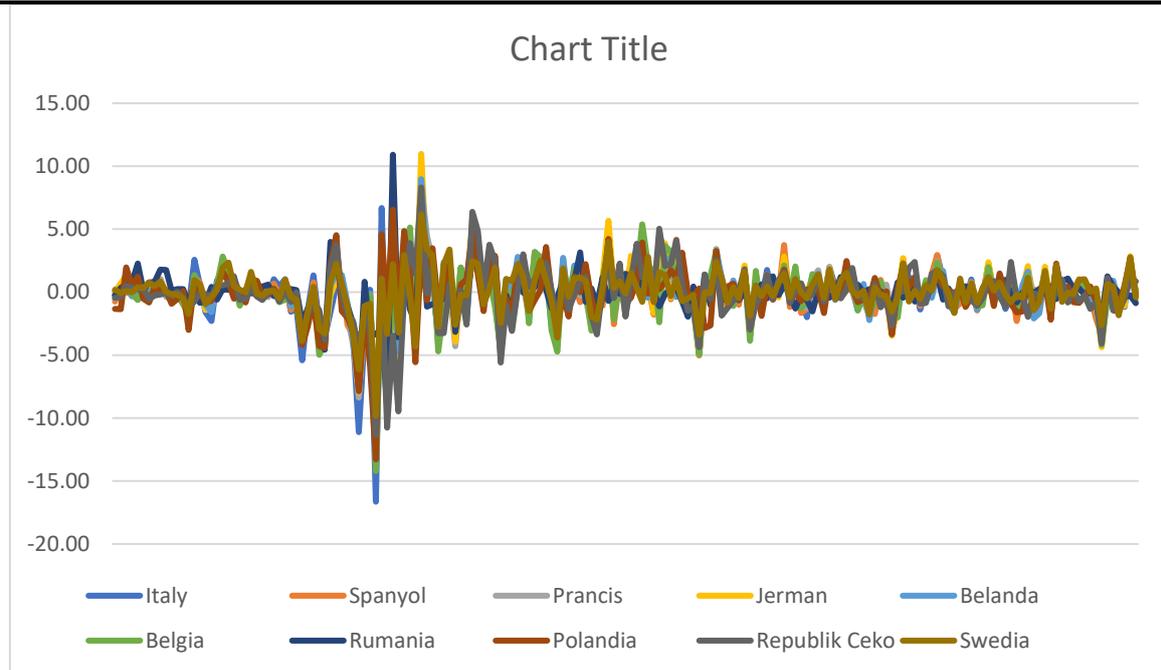
The causality test is carried out because there are four possible directions of causality. First, X causes Y if the null hypothesis states  $\beta_j = 0$  where  $j = 1, \dots, k$  can be rejected ( $\beta_j = 0, i = 1, 2, \dots, k$ ). Both Y cause X if the null hypothesis which states  $\alpha_i = 0$  where  $i = 1, \dots, m$  can be rejected. Third, a reciprocal relationship occurs when X causes Y and at the same time Y causes X. Fourth, the two variables are mutually independent. Testing with *kasusalitastest granger* done by looking at the probability value generated by the level of trust at the *level of 5%*. If the probability value is smaller than  $\alpha$ , then reject  $H_0$  and accept  $H_a$  (Ahmadi, 2018).

$H_0$ : Probability  $\geq 0.05$  (There is no causality relationship)

$H_a$ : Probability  $\leq 0.05$  (There is a causal relationship)

#### 4. RESULTS AND DISCUSSIONS

The European Union or EU is an intergovernmental and supranational organization consisting of European countries. The similarities between European countries lead to integration within these countries. The integration that occurs causes the *Contagion Effect* as shown in Figure 1, which explains that during the Covid-19 outbreak, it affects countries with the most Covid-19 cases in the European Union.



**Figure 1: The Movement of Stock Return in Top-10 European Union Countries with the most Covid-19 cases.**

### Descriptive Statistical Analysis Descriptive

Analysis is a statistic used to analyze data by explaining or describing the data that has been collected as it is without intending to make general or general conclusions. generalization (Sugiyono, 2014).

**Table 1: Descriptive Statistical Analysis**

	BELANDA	ROMANIA	BELGIA	PRANCIS	JERMAN	ITALY	SPANYOL	CEKO	SWEDIA	POLANDIA
Mean	-0.040340	-0.048641	-0.088974	-0.101812	0.006410	-0.089078	-0.179942	-0.170123	0.063501	-0.107765
Median	0.037653	-0.006697	0.016693	-0.081769	-0.021366	0.034644	-0.069680	-0.156670	0.112744	-0.073872
Maximum	8.970547	10.91084	7.638227	8.389473	10.97590	9.061077	7.533626	8.313019	6.171675	6.540245
Minimum	-10.75264	-9.114738	-14.21067	-12.27677	-12.23862	-16.64099	-13.97346	-11.34756	-9.818266	-13.27741
Std. Dev.	1.999386	1.800594	2.317605	2.224533	2.270211	2.492232	2.272540	2.317080	1.767099	2.168472
Skewness	-0.748726	0.199523	-1.449984	-0.985057	-0.556836	-1.980396	-1.289497	-1.057540	-1.134404	-1.266811
Kurtosis	9.552061	15.21296	10.94948	9.236103	10.37337	15.79128	11.29972	9.486620	8.831364	10.98506
Jarque-Bera	340.6711	1126.089	540.0134	322.5596	419.3682	1352.257	569.6720	351.0632	295.2736	529.2774
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	-7.301625	-8.804101	-16.10435	-18.42800	1.160287	-16.12304	-32.56959	-30.79224	11.49373	-19.50555
Sum Sq. Dev.	719.5582	583.5847	966.8330	890.7382	927.6944	1118.019	929.5992	966.3948	562.0751	846.4090
Observations	181	181	181	181	181	181	181	181	181	181

Sumber : Eviews (Data diolah)

From table 1 shows that the amount of data (n) used in this study was 181 data. Mean is the average value of the data, Sweden of 0.063501, has the largest mean value while Spain has the smallest mean value of -0.179942. Meanwhile, the Median is the middle value. From this table, the largest median is experienced by Sweden with a value of 0.112744. Meanwhile, Czech Republic has the smallest median value with a value of -0.156670. Maximum is the largest value of data. Germany has the maximum maximum value of 10,97590. Meanwhile, Sweden has the smallest maximum value of 6.171675.

Minimum is the smallest value of data. Romania has the highest minimum value of -9.114738. Meanwhile, Italy has the smallest minimum value of -16.64099. Std. Dev is a measure of the dispersion or distribution of data. Italy has a std value. The biggest dev is 2.492232, which means that Value Return Italy's Stock has the highest risk level of change. Meanwhile, Sweden has a value of



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std. The smallest Dev is 1.767099 which means that Sweden has the lowest level of risk of experiencing change compared to other variables during the study period.

Skewness is a measure of the asymmetry of the distribution of data around the mean. Normal distribution is 0 (zero). Positive skewness shows that the data distribution has a long tail on the right and negative skewness has a long tail on the left. *Kurtosis* measures the height of a distribution. Normally distributed data is 3, if the *kurtosis* exceeds 3 then the data distribution is said to be *leptocuric* to normal. If it is less than 3, the data distribution is flat compared to data that is normally distributed.

*Jarque-Bera* to find out whether the data is normally distributed. This test measures the difference between *kurtosis* and *skewness* and is compared to if the data is normally distributed. *Probability* indicates the probability that the value *jarque-fall* exceeds the observed value under the null hypothesis. Small values tend to reject the hypothesis of no normal distribution.

### Unit Root Test

The results of data stationarity test results of the index return the stock Top-10 European Union countries with the most Covid-19 cases are as follows:

**Table 2: The Augmented Dickey-Fuller (ADF) Unit Root Test Results at level 0**

Variabel	Nilai t statistik ADF	Nilai tkritis tabel McKinnon		
		1%	5%	10%
Italy (Italy 40)	-7.731012	-3.466994	-2.877544	-2.575381
Spain (Madrid)	-7.621157	-3.466994	-2.877544	-2.575381
France (CAC 40)	-7.877842	-3.466994	-2.877544	-2.575381
Germany (DAX)	-13.33188	-3.466786	-2.877453	-2.575332
Netherlands (AEX)	-13.24815	-3.466786	-2.877453	-2.575332
Belgium (Bel 20)	-12.91696	-3.466786	-2.877453	-2.575332
Romania (Bucharest)	-15.83985	-3.466786	-2.877453	-2.575332
Poland (WIG 20)	-13.07029	-3.466786	-2.877453	-2.575332
Czechia (OETOB)	-6.422346	-3.466994	-2.877544	-2.575381
Sweden (OMX)	-13.49536	-3.466786	-2.877453	-2.575332

Source: Eviews (processed data)

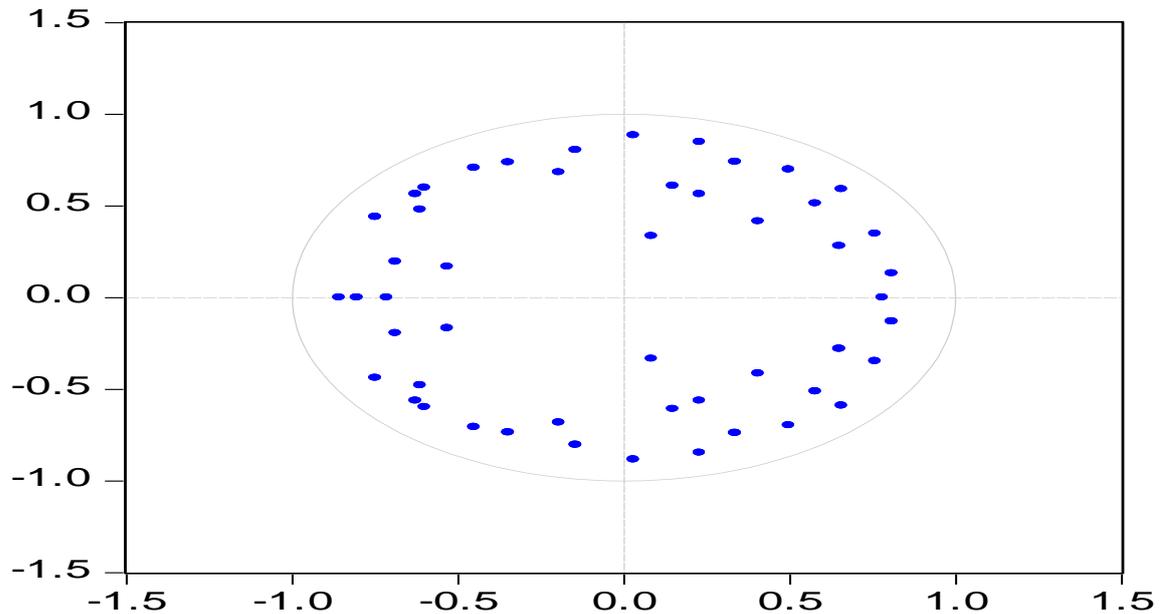
Stationary test results with the *Augmented Dickey-Fuller* (ADF) showed that all of the data return indices used stationary at level 0, where the value of level 0 is the nominal value of the variable (Sudarjah and Joseph, 2008). The results of the *Augmented Dickey-Fuller* (ADF) test in table 2 prove that the ten main variables used are stationary at level 0 as seen from the ADF t-statistic greater than the critical value *Mackinnon* for all levels of confidence.

### Methods of Vector Auto Regression (VAR)

VAR method merupakan a method for analyzing a relationship between variables that are not based on the particular theory (Widarjono, 2015). In this VAR method, there is no need to distinguish between endogenous and exogenous variables because in this VAR method all variables are believed to be interrelated. VAR is a system of equations that shows each variable as a linear function of the constant and the value *lag* of the variables that exist in the system. In the VAR model, all variables used in the analysis are considered to have the potential to become endogenous variables, ignoring the separation between exogenous and endogenous variables or in another sense, namely that all variables are entitled to become variables *dependent* and *independent* (Ahmadi, 2018).

## 1. Stability Test of the VAR Model

### Inverse Roots of AR Characteristic Polynomial



**Figure 2: Var Stability Test Results (Lag 5)**

Based on Figure 2 it is known that the VAR model used has a maximum lag, namely at lag 5. After entering the 6th lag, the model becomes unstable and there is a tendency to become a non-stationary model. In Figure 2, it can be seen that the VAR model using a maximum lag of 5 is stable, because the *roots* have a modulus  $<1$  and all of them are located in the unit circle.

## 2. Test Optimum Lag

**Table 3: Results VAR Lag Order Selection Criteria**

<i>Criteria</i>	<i>lag</i>	<i>value</i>
AIC ( <i>Akaike Information Criterion</i> )	5	27.02778
SIC ( <i>Schwarz Information Criterion</i> )	0	28.92048
HQC ( <i>Hannan Quinnon Criterion</i> )	0	28.81340

Source: Eviews (processed data)

After knowing *thelag* maximumlength, the next step is to determinelength *lag* the rightusing VAR *lag order selection criteria* using AIC, SC, and HQ. Based on Table 4.4 it was decided to take the lag by AIC(*AkaikeInformationCriterion*)is equal to 5. Use of AIC made to choose a lower order than when using SIC(*SchwarzInformation Criterion* or HQC(*HannanQuinnonCriterion*)(Setyasmoro, 2009).

## Test Pairwise Granger Causality

**Table 4: VARTest Results Granger CausalityGranger**

<i>Dependent Variable</i>	<i>Exclude</i>	<i>Probability</i>
Italy (Italy 40)	Spanyol (Madrid)	0.5392
	Prancis (CAC 40)	0.0851
	Jerman (DAX)	0.2292
	Belanda (AEX)	0.7172
	Belgia (Bel 20)	0.5318
	Romania (Bucharest)	0.0350
	Polandia (WIG 20)	0.2153



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	Ceko (OETOB)	0.0022
	Swedia (OMX)	0.5312
Spainol (Madrid)	Italy (Italy 40)	0.0082
	Prancis (CAC 40)	0.2861
	Jerman (DAX)	0.4402
	Belanda (AEX)	0.3700
	Belgia (Bel 20)	0.6872
	Romania (Bucharest)	0.0033
	Polandia (WIG 20)	0.0871
	Ceko (OETOB)	0.0274
	Swedia (OMX)	0.0913
Prancis (CAC 40)	Italy (Italy 40)	0.0001
	Spainol (Madrid)	0.0299
	Jerman (DAX)	0.1824
	Belanda (AEX)	0.0167
	Belgia (Bel 20)	0.0093
	Romania (Bucharest)	0.0074
	Polandia (WIG 20)	0.0103
	Ceko (OETOB)	0.0239
	Swedia (OMX)	0.0015
Jerman (DAX)	Italy (Italy 40)	0.0008
	Spainol (Madrid)	0.1666
	Prancis (CAC 40)	0.0430
	Belanda (AEX)	0.4709
	Belgia (Bel 20)	0.0068
	Romania (Bucharest)	0.0199
	Polandia (WIG 20)	0.0128
	Ceko (OETOB)	0.0011
	Swedia (OMX)	0.0242
Belanda (AEX)	Italy (Italy 40)	0.0121
	Spainol (Madrid)	0.1286
	Prancis (CAC 40)	0.1345
	Jerman (DAX)	0.2154
	Belgia (Bel 20)	0.0246
	Romania (Bucharest)	0.0070
	Polandia (WIG 20)	0.0693
	Ceko (OETOB)	0.0018
	Swedia (OMX)	0.1705
Belgia (Bel 20)	Italy (Italy 40)	0.0003
	Spainol (Madrid)	0.0701
	Prancis (CAC 40)	0.3836
	Jerman (DAX)	0.3420
	Belanda (AEX)	0.1400
	Romania (Bucharest)	0.0002
	Polandia (WIG 20)	0.0001
	Ceko (OETOB)	0.0168
	Swedia (OMX)	0.0504
Romania (Bucharest)	Italy (Italy 40)	0.0005
	Spainol (Madrid)	0.0188
	Prancis (CAC 40)	0.0945
	Jerman (DAX)	0.2051
	Belanda (AEX)	0.0676
	Belgia (Bel 20)	0.0900
	Polandia (WIG 20)	0.0147

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	Ceko (OETOB)	0.0044
	Swedia (OMX)	0.2544
Polandia (WIG 20)	Italy (Italy 40)	0.0001
	Spainyol (Madrid)	0.0002
	Prancis (CAC 40)	0.0003
	Jerman (DAX)	0.0076
	Belanda (AEX)	0.2288
	Belgia (Bel 20)	0.0036
	Romania (Bucharest)	0.0637
	Ceko (OETOB)	0.0382
	Swedia (OMX)	0.0833
Ceko (OETOB)	Italy (Italy 40)	0.0001
	Spainyol (Madrid)	0.0001
	Prancis (CAC 40)	0.0008
	Jerman (DAX)	0.0004
	Belanda (AEX)	0.0245
	Belgia (Bel 20)	0.0003
	Romania (Bucharest)	0.0003
	Polandia (WIG 20)	0.0001
	Swedia (OMX)	0.0001
Swedia (OMX)	Italy (Italy 40)	0.0407
	Spainyol (Madrid)	0.0636
	Prancis (CAC 40)	0.0051
	Jerman (DAX)	0.2045
	Belanda (AEX)	0.4398
	Belgia (Bel 20)	0.3562
	Romania (Bucharest)	0.0027
	Polandia (WIG 20)	0.7699
	Ceko (OETOB)	0.1422

Source: Eviews (processed data)

The results of the test *Causality* based on VAR in Table 4 can be explained that the rate of return Italy's as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index Spanish with a value *probability* amounting to 0.5392. In contrast, the rate of return on the index Spanish as the dependent variable is influenced (*granger cause*) rate return Italy's with a probability value of 0.0082. So it can be said that there is no reciprocal relationship (*causality*) between Italy's return rate and the return index Spanish with a 95% confidence level. .

The test results *granger causality* based on VAR in Table 4, it can be explained that the rate of return Italy's as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index French with a value *probability* of 0.0851. On the other hand, the rate of return on the index French as the dependent variable is influenced (*Granger cause*) rate return Italy's with a probability value of 0.0001. So it can be said that there is no reciprocal relationship (*causality*) between Italy's rate of return and the index return French with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in Italy as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index German with a value *probability* of 0.2292. On the other hand, the rate of return on the index German as the dependent variable is influenced (*Granger cause*) rate return Italy's with a value *probability* of 0.0008. So it can be said that there is no reciprocal relationship (*causality*) between Italy's rate of return and index return Germany's with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in Italy as the dependent variable is not influenced (*non-granger cause*) by the rate of return on



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*theindex* Dutchwith avalue *probability* of 0.7172. On the other hand, the rate of *return on theindex* Dutchas the dependent variable is influenced by (*Granger cause*)rate *return* Italy'swith avalue *probability* of 0.0121. So it can be said that there is no reciprocal relationship (*causality*) between Italy's return rate and *theindex return* Dutchwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return in Italy* as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Belgianwith avalue *probability* of 0.5318. On the other hand, the rate of *return on theindex* Belgianas the dependent variable is influenced (*granger cause*) ofrate *return* Italy'swith avalue *probability* of 0.0003. So it can be said that there is no reciprocal relationship (*causality*) between Italy's rate of return and *index return* Belgium'swith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return in Italy* as the dependent variable is influenced (*granger cause*) by the rate *index return* Romanianwith avalue *probability* of 0.0350. On the other hand, the rate of *return on theindex* Romanianas the dependent variable is influenced (*granger cause*)rate *return* Italy'swith avalue *probability* of 0.0005. So it can be said that there is a reciprocal relationship (*causality*) betweenrate of *return* Italy'sand *theindex return* Belgianwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return in Italy* as the dependent variable is not influenced (*non-granger cause*) by the rate *index return* Polishwith avalue *probability* of 0.2153. On the other hand, the rate *index return* Polishas the dependent variable is influenced (*Granger cause*)rate *return* Italy'swith avalue *probability* of 0.0001. So it can be said that there is no reciprocal relationship (*causality*) between Italy's rate of return and *index return* Poland'swith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return in Italy* as the dependent variable is influenced (*granger cause*) by the rate *index return* Czechwith avalue *probability* of 0.0022. On the other hand, the rate *index return* Czechas the dependent variable is influenced (*Granger cause*)rate *return* Italy'swith avalue *probability* of 0.0001. So it can be said that there is a reciprocal relationship (*causality*) betweenrate of *return* Italy'sand *index return* Czechwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return in Italy* as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Swedishwith avalue *probability* of 0.5312. On the other hand, the rate *index return* Swedishas the dependent variable is influenced (*granger cause*)rate *return* Italy'swith avalue *probability* of 0.0407. So it can be said that there is no reciprocal relationship (*causality*) between Italy's rate of return and *index return* Sweden'swith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the level of *return in Spain* as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Frenchwith avalue *probability* of 0.2861. On the other hand, the rate of *return on theindex* Frenchas the dependent variable is influenced (*granger cause*) of the rate of *return* Spanishwith avalue *probability* of 0.0299. So it can be said that there is no reciprocal relationship (*causality*) between the Spanish rate of return and *theindex return* Frenchwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return in Spain* as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Germanwith avalue *probability* of 0.4402. On the other hand, the rate of *return of*



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*theindex* Germanas the dependent variable is also not influenced (*non-granger cause*) of therate of *return* Spain with avalue *probability* of 0.1666. So it can be said that there is no reciprocal relationship (*causality*) between the Spanish rate of return and *theindex return* Germanwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the level of *return in* Spain as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Dutchwith avalue *probability* of 0.3700. On the other hand, the rate of *return for theindex* Dutchas the dependent variable is also not influenced by (*non-granger cause*)rate *return* Spain'swith avalue *probability* of 0.1286. So it can be said that there is no reciprocal relationship (*causality*) between the Spanish rate of return and *theindex return* Dutchwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the level of *return in* Spain as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Belgianwith avalue *probability* of 0.6872. On the other hand, the rate of *return for theindex* Belgianas the dependent variable is also not influenced (*non-granger cause*) of therate of *return* Spain with avalue *probability* of 0.0701. So it can be said that there is no reciprocal relationship (*causality*) between the Spanish rate of return and *theindex return* Belgianwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return in* Spain as the dependent variable is influenced (*granger cause*) by therate *index return* Romanianwith avalue *probability* of 0.0033. On the other hand, the rate of *return on theindex* Romanianas the dependent variable is also influenced (*granger cause*) of the *return* Spanishwith avalue *probability* of 0.0188. So it can be said that there is a reciprocal relationship (*causality*) between therate of *return* Spanishand *thereturn index* Romanianwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return in* Spain as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Polishwith avalue *probability* of 0.0871. On the other hand, therate *index return* Polishas the dependent variable is influenced (*granger cause*)rate *return* Spain'swith avalue *probability* of 0.0002. So it can be said that there is no reciprocal relationship (*causality*) between therate of *return* Spanishand *theindex return* Polishwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return in* Spain as the dependent variable is influenced (*granger cause*) by therate *index return* Czechwith avalue *probability* of 0.0274. On the other hand, therate *index return* Czechas the dependent variable is also influenced (*granger cause*)rate *return* Spain'swith avalue *probability* of 0.0001. So it can be said that there is a reciprocal relationship (*causality*) between therate of *return* Spanishand *thereturn index* Czechwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return in* Spain as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Swedishwith avalue *probability* of 0.0913. On the other hand, the *index return* Swedishas the dependent variable is also not influenced (*non-granger cause*)rate *return* Spain'swith avalue *probability* of 0.0636. So it can be said that there is no reciprocal relationship (*causality*) between therate of *return* Spanishand *theindex return* Swedishwith a confidence level of 95%.



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The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in France as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index German with a value probability of 0.1824. On the other hand, the rate of return on the index German as the dependent variable is influenced (*granger cause*) by the rate of return in France with a value probability of 0.0430. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return French and the index return German with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate of return on the index Dutch with a value probability of 0.0167. On the other hand, the rate of return for the index Dutch as the dependent variable is not influenced (*non-granger cause*) by the rate of return of France with a value probability of 0.1345. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return French and the index return Dutch with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate of return on the index Belgian with a value probability of 0.0093. On the other hand, the rate of return for the index Belgian as the dependent variable is not influenced (*non-granger cause*) of the rate of return in France with a value probability of 0.3836. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return French and the index return Belgian with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate index return Romanian with a value probability of 0.0074. On the other hand, the rate of return for the index Romanian as the dependent variable is not influenced (*non-granger cause*) of the rate of return in France with a value probability of 0.0945. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return French and the index return Romanian with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate index return Polish with a value probability of 0.0103. On the other hand, the rate index return Polish as the dependent variable is also influenced (*granger cause*) rate return France's with a value probability of 0.0003. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return French and the index return Polish with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate index return Czech with a value probability of 0.0239. On the other hand, the rate of return for the index Czech as the dependent variable is also influenced by (*granger cause*) the rate of return in France with a value probability of 0.0008. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return French and the index return Czech with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in France as the dependent variable is influenced (*granger cause*) by the rate of return on the index Swedish with a value probability of 0.0015. On the other hand, the rate of return for the index Swedish as the dependent variable is also influenced (*granger cause*) by the rate of return in France with a value probability of 0.0051. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return French and the index return Swedish with a confidence level of 95%.



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The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in Germany as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index Dutch with a value probability of 0.4709. On the other hand, the rate of return for the index Dutch as the dependent variable is also not influenced (*non-granger cause*) rate return Germany's with a value probability of 0.2154. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return German and the index return Dutch with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in Germany as the dependent variable is influenced (*granger cause*) by the rate of return on the index Belgian with a value probability of 0.0068. On the other hand, the rate of return for the index Belgian as the dependent variable is not influenced (*non-granger cause*) rate return Germany's with a value probability of 0.3420. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return German and the index return Belgian with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in Germany as the dependent variable is influenced (*granger cause*) by the rate index return Romanian with a value probability of 0.0199. On the other hand, the rate of return for the index Romanian as the dependent variable is not influenced (*non-granger cause*) rate return Germany's with a value probability of 0.2051. So it can be said that there is no reciprocal relationship (*causality*) between the rate return German and the return index Romanian with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return in Germany as the dependent variable is influenced (*granger cause*) by the rate index return Polish with a value probability of 0.0128. On the other hand, the rate index return Polish as the dependent variable is also influenced (*granger cause*) rate return Germany's with a value probability of 0.0076. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return German and the return index Polish with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return German as the dependent variable is influenced (*granger cause*) by the rate index return Czech with a value probability of 0.0011. On the other hand, the rate index return Czech as the dependent variable is also influenced (*granger cause*) rate return Germany's with a value probability of 0.0004. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return German and the return index Czech with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return in Germany as the dependent variable is influenced (*granger cause*) by the rate of return on the index Swedish with a value probability of 0.0242. On the other hand, the index return Swedish as the dependent variable is not influenced (*non-granger cause*) rate return Germany's with a value probability of 0.2045. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return German and the index return Swedish with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return of the Netherlands as the dependent variable is influenced (*granger cause*) by the rate of return on the index Belgian with a value probability of 0.0246. On the other hand, the rate of return for the index Belgian as the dependent variable is not influenced (*non-granger cause*) by the rate of return of the Netherlands with a value probability of 0.1400. So it can be said that there is no reciprocal



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relationship (*causality*) between the rate of return Dutch and the index return Belgian with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return of the Netherlands as the dependent variable is influenced (*granger cause*) by the rate index return Romanian with a value *probability* of 0.0070. On the other hand, the rate of return for the index Romanian as the dependent variable is not influenced (*non-granger cause*) the rate of return of the Netherlands with a value *probability* of 0.0676. So it can be said that there is no reciprocal relationship (*causality*) between the rate return Dutch and the return index Romanian with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return Dutch as the dependent variable is not influenced (*non-granger cause*) by the rate index return Polish with a value *probability* of 0.0693. On the other hand, the rate index return Polish as the dependent variable is not influenced (*non-granger cause*) rate return Dutch with a value *probability* of 0.2288. So it can be said that there is no reciprocal relationship (*causality*) between the rate return Dutch and the index return Polish with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return of the Netherlands as the dependent variable is influenced (*granger cause*) by the rate index return Czech with a value *probability* of 0.0018. On the other hand, the rate of return for the index Czech as the dependent variable is also influenced (*granger cause*) by the rate of return of the Netherlands with a value *probability* of 0.0245. So it can be said that there is a reciprocal relationship (*causality*) between the rate return Dutch and the index return Czech with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return of the Netherlands as the dependent variable is not influenced (*non-granger cause*) by the rate of return on the index Swedish with a value *probability* of 0.1705. On the other hand, the rate of return for the index Swedish as the dependent variable is also not influenced (*non-granger cause*) the rate of return of the Netherlands with a value *probability* of 0.4398. So it can be said that there is no reciprocal relationship (*causality*) between the rate return Dutch and the index return Swedish with a confidence level of 95%.

The results of the test *granger causality* based on VAR in Table 4 can be explained that the rate of return for Belgium as the dependent variable is influenced (*granger cause*) by the rate index return Romanian with a value *probability* of 0.0002. On the other hand, the rate of return for the index Romanian as the dependent variable is not influenced (*non-granger cause*) by the rate of return for Belgium with a value *probability* of 0.0900. So it can be said that there is no reciprocal relationship (*causality*) between the rate of return Belgian and the return index Romanian with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return for Belgium as the dependent variable is influenced (*granger cause*) by the rate index return Polish with a value *probability* of 0.0001. On the other hand, the rate index return Polish as the dependent variable is also influenced (*granger cause*) of the rate return Belgian with a value *probability* of 0.0036. So it can be said that there is a reciprocal relationship (*causality*) between the rate of return Belgian and the index return Polish with a confidence level of 95%.

The results of the test *granger causality* based on the VAR in Table 4 can be explained that the rate of return for Belgium as the dependent variable is influenced (*granger cause*) by the rate index return



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Czechwith avalue *probability* of 0.0168. On the other hand, therate *index return* Czechas the dependent variable is also influenced (*granger cause*) of therate *return* Belgianwith avalue *probability* of 0.0003. So it can be said that there is a reciprocal relationship (*causality*) between therate of *return* Belgianand *theindex return* Czechwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that the rate of *return for* Belgium as the dependent variable is not influenced (*non-granger cause*) by the rate of *return on theindex* Swedishwith avalue *probability* of 0.0504. On the other hand, therate *index return* Swedishhas the dependent variable is also not influenced (*non-granger cause*)rate *return* Belgium'swith avalue *probability* of 0.3562. So it can be said that there is no reciprocal relationship (*causality*) between therate of *return* Belgianand *theindex return* Swedishwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that the rate of *return for* Romania as the dependent variable is influenced (*granger cause*) by therate *index return* Polishwith avalue *probability* of 0.0147. On the other hand, therate *index return* Polishas the dependent variable is not influenced (*non-granger cause*)rate *return* Romanianwith avalue *probability* of 0.0637. So it can be said that there is no reciprocal relationship (*causality*) between therate *return* Romanianand *theindex return* Polishwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained thatthe rate of *return for* Romania as the dependent variable is influenced (*granger cause*) by therate *index return* Czechwith avalue *probability* of 0.0044. On the other hand, therate *index return* Czechas the dependent variable is also influenced (*granger cause*)rate *return* Romanianwith avalue *probability* of 0.0003. So it can be said that there is a reciprocal relationship (*causality*) between therate of *return* Romanianand *theindex return* Czechwith a confidence level of 95%.

The results of thetest *granger causality* based on VAR in Table 4 can be explained that therate of *return* Romanianas the dependent variable is not influenced (*non-granger cause*) by therate *index return* Swedishwith avalue *probability* of 0.2544. On the other hand, therate *index return* Swedishhas the dependent variable is influenced (*granger cause*)rate *return* Romania'swith avalue *probability* of 0.0027. So it can be said that there is no reciprocal relationship (*causality*) between therate of *return* Romanianand *theindex return* Swedishwith a confidence level of 95%.

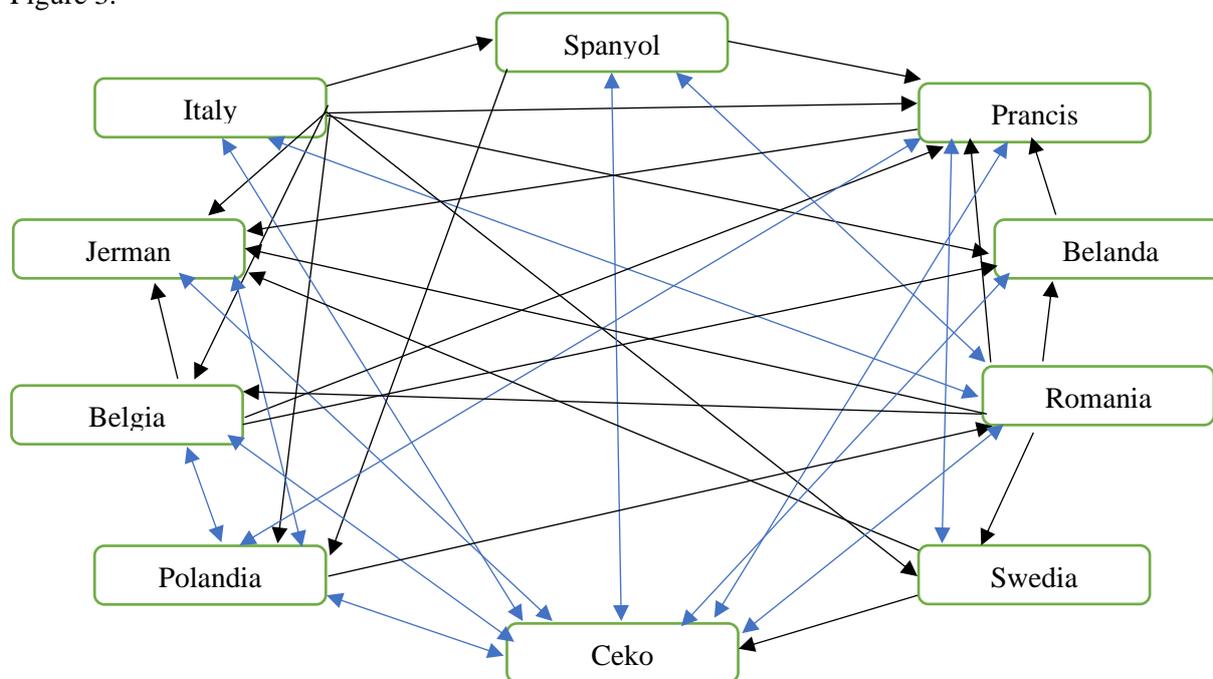
The results of thetest *granger causality* based on the VAR in Table 4 can be explained thatrate of *return* Poland'sas the dependent variable is influenced (*granger cause*) by therate *index return* Czechwith avalue *probability* of 0.0382. Conversely, therate *index return* Czechas the dependent variable is also influenced (*granger cause*)rate *return* Poland'swith avalue *probability* of 0.0001. So it can be said that there is a reciprocal relationship (*causality*) between therate *return* Polishand *theindex return* Czechwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that therate of *return* Polishas the dependent variable is not influenced (*non-granger cause*) by therate *index return* Swedishwith avalue *probability* of 0.0833. On the other hand, the *index return* Swedishhas the dependent variable is also not influenced (*non-granger cause*)rate *return* Poland'swith avalue *probability* of 0.7699. So it can be said that there is no reciprocal relationship (*causality*) between therate *return* Polishand *theindex return* Swedishwith a confidence level of 95%.

The results of thetest *granger causality* based on the VAR in Table 4 can be explained that therate of *return* Czechas the dependent variable is influenced (*granger cause*) by therate *return index*

Swedish with a value *probability* of 0.0001. In contrast, the *index return* Swedish has the dependent variable is not influenced (*non-granger cause*) rate return Czech with a value *probability* of 0.1422. So it can be said that there is no reciprocal relationship (*causality*) between the rate return Czech and the *index return* Swedish with a confidence level of 95%.

The results of the granger causality test in Table 3 show a 1 (one) directional relationship as shown in Figure 3.



**Figure 3: test results Granger Causality**

*Contagion effect* during the 2020.1 - 2020.9 observation period in the Top-10 European Union countries with the most Covid-19 cases occurs in 12 (twelve) *composite indexes* which have a two-way relationship with the capital markets of these countries, namely, the Czech capital market with the Polish capital market, the Czech capital market with the Italian capital market, the Czech capital market and the Spanish capital market, Czech capital with French capital market, Czech capital market with Dutch capital market, Czech capital market with German capital market, Czech capital market with Belgian capital market, Czech capital market with Romanian capital market, Polish capital market with Belgian capital market, Polish capital market with the German capital market, the Swedish capital market with France and the Romanian capital market with the Spanish capital market. The results of this study also prove that the Italian capital market is able to influence the movement of the stock index in the Top-10 European Union countries with the most Covid-19 cases.

## 5. CONCLUSION

Based on the research results, the following conclusions are obtained:

1. Not all of the *return indexes* in the Top-10 countries in the European Union with the most cases of Covid-19 (Italy, Spain, France, Germany, the Netherlands, Belgium, Romania, Poland, Czech and Sweden) influence each other. (*causality*) significantly during the period 2020.1-2020.9.
2. The *return index* country's has significant influence on the Czech capital market with the Polish capital market, the Czech capital market with the Italian capital market, the Czech capital market with the Spanish capital market, the Czech capital market with the French capital market, the Czech capital market with the Dutch capital market, Czech capital market with the German capital market, Czech capital market with the Belgian capital market, the Czech capital market with the Romanian capital market, the Polish capital market with the Belgian capital market, the



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Polish capital market with the German capital market, the Swedish capital market with France and the Romanian capital market with the capital of Spain.

3. The Italian capital market is the capital market that most influences the capital markets of the ten countries. Because, it can affect the movement of the stock index in the Top-10 European Union countries with the most Covid-19 cases.

### LIMITATION AND STUDY FORWARD

In this study the author has implemented it in accordance with the procedure but still has limitations, namely time constraints and because you do not know when the Covid-19 outbreak will end, it is intended that the discussion and writing in this study can be carried out in a directed manner, the limitations of the problem in question. that is, the time and the research period is only 9 months starting from January - September 2020.

Based on the limitations, the authors provide recommendations or suggestions to the next writer if you want to take the same theme, you should add the research period during the Covid-19 occurrence. If the Covid-19 pandemic is declared over, you should use the initial period of the emergence of COVID-19 to completion. In addition, the object of research should be wider than the Top-10 European Union countries with the most Covid-19 cases.

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## PERFORMANCE EVALUATION OF SRIWIJAYA UNIVERSITY BASED ON PERFORMANCE INDICATORS OF THE PUBLIC SERVICES AGENCY OF EDUCATION

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### Abstract

In the BLU performance assessment for state universities in 2018 conducted by the Ministry of Research, Technology and Higher Education, there were 28 educational institutions with the status of Public Service Bodies including Sriwijaya University with BLU status in 2010 with a ranking of 13 out of 28 educational institutions. Based on this decision, researchers are interested in assessing the performance of BLU Unsri in 2018 and evaluating constraints faced with the unachieved performance and evaluation of the target or performance indicator score of the BLU work unit itself and the recommendations given. Methods This research uses mixed methods (a combination of quantitative and qualitative). Process research begins by taking research data, processing data, interviews and final results. The results of this study show that the performance of BLU Unsri in 2018 is good with the AA predicate with a score of 81.215. In 2018, Unsri's performance if assessed by the BLU indicator was unsatisfactory because the highest score was very good with the AAA predicate and a total score of more than 95. There are several target indicators that have not been achieved in the financial aspect, namely cash ratio, receivables collection period, fixed asset turnover, reward On Fixed Assets, Return on Equity, Ratio of PNPB revenue to operating expenses, definitive RBA, financial statements based on SAK, and service rates. Meanwhile, when viewed from the service aspect that has not been achieved is customer achievement and satisfaction.

**Keywords: Education Services, Financial Performance, Service Performance**

### 1. INTRODUCTION

Since the existence of regulations on the use of performance-based finance, many government agencies have implemented this. On this performance basis, the direction of using government funds is no longer oriented to inputs, but to output. This change is important in the context of the learning process to use increasingly limited government resources, but still be able to meet the increasing need for funds. Output-oriented budgeting is a practice that has been widely adopted by modern governments in various countries.

Such a budgeting approach is indispensable for government agency work units that provide services to the public. One of the alternatives to encourage improvement in public services is to self-serve the government. Enterprising the government is a paradigm that provides the right direction for the public financial sector. Provisions regarding budgeting have been stated in Law no. 17 of 2003 concerning State Finance.

Furthermore, Law no. 1 of 2004 concerning the State Treasury opens a new corridor for the implementation of a performance basis within the government with articles 68 and 69 of this law, government agencies whose main task and function are to provide services to the public can implement flexible financial management by highlighting productivity, efficiency and effectiveness. The main principles contained in the two laws form the basis for determining government agencies to implement financial management for the Public Service Agency (BLU). This BLU is implemented as a first step in reforming public sector financial management, in order to improve government services to the public. Government agencies established to provide services to the community in the form of providing goods



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and / or services that are sold without prioritizing for profit and in carrying out their activities based on the principles of efficiency and productivity (article 1 of Law No.1 of 2004 concerning State Treasury).

BLU aims to improve services to the community in order to advance welfare and educate the nation's life by providing flexibility in financial management based on economic and productivity principles, and the application of sound business practices. In the Financial Management Pattern, Public Service Bodies are required to provide the best performance continuously both from financial and non-financial aspects, this is stated in the administrative requirements to become a Public Service Agency. Several higher education institutions in Indonesia that implement the Public Service Agency Financial Management Pattern are competing to improve their best performance so that they can achieve the standards set by the Public Service Agency for Education Services, including Sriwijaya University, which has implemented BLU since 2010.

The University Sriwijaya is one of the State Universities whose financial management has the status of a Public Service Agency, based on the Decree of the Minister of Finance No. 190 / KMK.05 / 2009 dated 26 May 2009 concerning the Establishment of Sriwijaya University in the Ministry of National Education as a Government Agency Implementing Financial Management for Public Service Bodies. Sriwijaya University, since 2010 has implemented performance-based financial system management . With the BLU status, Sriwijaya University must strive to improve performance and service quality, especially in transparency and accountability in the financial management system.

From the total 28 universities registered as Public Service Bodies, from the results of calculating the Performance in 2018 for the 2017 Performance assessment, Sriwijaya University is ranked 15th with a score of 69.40 and obtains the Predicate A - Good. The results of this performance assessment are contained in the Director General of Treasury Regulation Number PER-21 / PB / 2015 concerning Guidelines for the Performance Assessment of Public Service Bodies in the Education Service Sector, the regulation explains that the results of the performance assessment are grouped into the Good (AAA, AA, A) group (BBB, BB, B), Bad (CC, C). From the results of the BLU SATKER performance appraisal in the Education Services sector under the ministry and culture, it can be seen that the ranking is not satisfactory.

From the results of the performance appraisal based on the Directorate of Financial Management for Public Service Bodies Number KEP 219 / PB.05 / 2013 and Regulation of the Director General of Treasury Number PER-21 / PB / 2015. From this assessment, Sriwijaya University must hurry to improve the performance of the Public Service Agency by evaluating each performance indicator, and fixing the weaknesses of not achieving the score of the performance indicators set by the Public Service Agency Work Unit so that in the future Sriwijaya University can achieve the best performance with the AAA predicate. . Based on these conditions, this study entitled, Sriwijaya University Performance Evaluation Based on Performance Indicators of Public Service Bodies Work Unit in the Education Service Sector.

## 2. LITERATURE REVIEW

### Agency Theory

The main principle of this theory states that there is a contractual relationship between the party giving the authority, namely the owner (principal) and the party receiving the authority (agent), namely the manager. Jensen and Meckling (1976: 5) state that agency relationships are:

"A contract under which one or more persons (the principal (s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent."

The definition above explains that an agency relationship occurs when one or more individuals (principal) employ another individual (agent) to provide a service and then delegates power to the agent to make a decision on behalf of the principal (Hikmah, Chairina and Rahmayanti, 2011: 5). This is the



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basis that management must report and disclose the company to the owner as a manifestation of management accountability to the owner (Hikmah, Chairina and Rahmayanti, 2011: 5)

The establishment of public service bodies is based on the concept of successful agentification in many countries, aimed at improving service quality in the public sector. Agency theory is the theoretical basis that underlies the company's business practices so far. This theory assumes that all individuals act on their own behalf, shareholders as principal are assumed to be only interested in increasing financial results or their investment in the company and agents are assumed to receive satisfaction in the form of financial compensation and the conditions that accompany the relationship (Wahyudiharto, 2009).

### **Signal Theory (Signaling Theory)**

Jama'an (2008), explains that the signal theory is how a company should give a signal (sign) to the user financial statements and performance of an entity. This signal is in the form of information about what management has done to realize the owner's wishes. These signals can be in the form of promotions or other information that states that the company or entity is better than other entities.

### **Previous Research**

Based on the results of research on the Performance of Public Service Bodies in higher education, namely Muhtar, et al. (2013), it is concluded that there is no significant difference in financial performance between before and after implementing the Public Service Agency Financial Management Pattern. According to Slamet (2014), from the perception of internal stakeholders in responding to their institution to become a public service agency, they understand and know and agree that the institution has changed its status to become a work unit of a public service agency.

According to Lestiyani (2015), based on a financial perspective, the ratio of income and expenditure based on the data obtained has reached good targets and must be improved. From a customer perspective, academic services for students are good and very well adjusted to Standard Operating Procedures (SOPs) and Minimum Service Standards which are part of the Public Service Agency. From an internal business perspective, innovation by developing business sectors for business units and operations has been carried out by the Public Service Agency. Learning and growth perspective, to fulfill human resources who have competence in their respective fields and provide great opportunities and financial support to improve their abilities through training.

According to Wicaksono (2015), public service agency budget planning has implemented Performance Based Budgeting (ABK), Public service agency budget implementation has implemented Value For Money (VFM), and financial reporting Public service agencies have been based on generally accepted Financial Accounting Standards and Regulation of the Minister of Finance (PMK) Number 76 / PMK.05 / 2008 concerning Guidelines for Accounting and Financial Reporting of Public Service Bodies.

According to Julia, & Sianturi A.MT (2016), financial management of public service agencies (PK-BLU) has a positive influence on financial performance, and financial management of public service agencies (PK-BLU) has a positive influence on non-financial performance. Ernitati's (2016) research results, for the Stakeholders Perspective, the Education and Learning Perspective (learning and Teaching Perspective), and the HR and work culture perspectives have not achieved what was expected in the Business Strategy Plan. Meanwhile, the Administration and Finance perspective for the development of cooperation and development of the funding system has met what is expected in the Business Strategy Plan.

According to Misneli (2018), the results of the calculations carried out by researchers based on perdirjen number Per 32 / PB / 2014 show that the performance of public service agencies is Good with the title A. The results of Sari's research, J et al (2019), state that the performance and financial condition of BLU colleges height in Indonesia continues to increase.



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### **Public Service Agency Financial Management Patterns**

Based on Law No. 1 of 2004 concerning the State Treasury in article 1 states that the Public Service Agency, hereinafter referred to as BLU, is an agency within the government established to provide public services in the form of providing goods and / services that are sold without prioritizing for profit and in carrying out their activities based on the principle of efficiency. and productivity.

### **Purpose and Azaz Establishment of a Public Service Agency**

In PP No.23 of 2005, article 68 paragraph 1, it is stated that BLU aims to improve services to the community in order to advance public welfare and educate the nation's life by providing flexibility in financial management based on economic and productivity principles and the application of sound business practices. What is meant by sound business practice is the implementation of organizational functions based on good management principles in the context of providing quality services and sustainable management. Meanwhile, the principles of the Public Service Agency are:

1. to carry out public services whose management is based on delegated authority, not legally separated from the parent agency.
2. BLU officials are responsible for the implementation of public service activities to the head of the parent agency.
3. BLU does not seek profit.
4. Work plans, budgets and BLU reports with the parent agency are not separate.
5. Management in line with sound business practices.

### **Characteristics of Public Service Bodies**

BLU has certain characteristics that differentiate it from other government agencies, namely (Sie Infokum-Ditama Binbangkum BPK, 2008):

1. Domiciled as a government institution that is not separated from the assets of the State.
2. Produce goods and / or services needed by society.
3. Not for profit.
4. Managed autonomously with the principles of efficiency and productivity in the corporate style.
5. Work plans, budgets and accountability are consolidated in the parent agency.
6. Receipts both income and donations can be used directly.
7. Employees can consist of civil servants and non-civil servants.
8. BLU is not subject to tax.

Forms of privileges in terms of financial management flexibility owned by BLU include (Directorate of Financial Management, BLU, 2010):

1. Operational income can be used directly according to the Business Plan and Budget without first being deposited into the state treasury account, however, all of these revenues constitute PNPB that must be reported in the Budget Realization Report.
2. The BLU Expenditure Budget is a flexible budget based on equality between the volume of service activities and the total expenditure, expenditures can increase / decrease than budgeted as long as the related income increases / decreases, at least proportionally.
3. In the context of cash management, BLU can plan cash receipts and disbursements, collect / bill, store cash and manage bank accounts, make payments, get sources of funds to cover short-term deficits, and utilize short-term idle cash to obtain additional income. .
4. BLU can manage accounts receivable and debt as long as it is managed and resolved in an orderly, efficient, economical, transparent and responsible manner as well as providing added value according to sound business practices.
5. BLU can make short-term and long-term investments.
6. The procurement of BLU goods and services whose source of funds comes from operational income, free grants, the results of cooperation with other parties can be carried out based on the provisions of goods / services procurement stipulated by the BLU leader.
7. BLU can develop financial management policies, systems and procedures.
8. BLU can employ non civil servant professional staff.



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9. Management officers, supervisory boards and employees can be given remuneration based on the level of responsibility and the required professionalism.

### Public Service Agency Requirements

Not all government agencies have the opportunity to become BLU, because this opportunity is specifically provided for government work units that carry out operational tasks of public services in the field of providing goods and services such as educational institutions, hospitals, licensing services, agencies that manage an area or an area such as integrated economic zones, and agencies that manage special funds such as SME funds and revolving funds. The opportunity to become a BLU can be given to agencies within the government that have met the three required requirements, namely (PP No. 23 of 2005):

#### 1. Substantive requirements

When providing public services related to: provision of public goods and / or services, management of certain areas / areas for the purpose of improving the economy of the community or public services, and management of special funds in the context of improving the economy and / or services to the community.

#### 2. Technical Requirements

Namely, the performance of services in the field of main duties and functions is feasible to manage and its achievement enhanced through the BLU as recommended by the minister / head of institution / head of SKPD in accordance with their authority, and the financial performance of the work unit of the agency concerned is healthy as shown in the proposed BLU determination document.

#### 3. Administrative Requirements

These administrative requirements consist of (Directorate General of Treasury, Ministry of Finance, 2008):

- a. Statement of commitment to improve service performance, finance, and benefits to the community.
- b. Good governance patterns; is an internal regulation of the satker that establishes organization and management, accountability and transparency.
- c. Business Strategic Plan (RSB); is a planning process that is oriented towards the results to be achieved during a period of 1 (one) to 5 (five) years, which is arranged systematically and continuously taking into account the potentials, opportunities, and constraints that exist or may arise. This RSB contains the vision, mission, goals, objectives, target indicators, strategies (policies and programs) as well as measures of success and failure in implementation.
- d. Main financial reports; consists of budget realization reports, balance sheets, and notes to financial reports.
- e. Minimum Service Standards; is a service measure that must be fulfilled by the satker, which is determined by the minister or the head of the institution in the context of providing service activities to the public which must consider the quality of services, equality and equality of services, as well as the ease of obtaining services.
- f. Latest audit report or statement of willingness to be audited independently.

Government agencies that have met the three requirements above are designated as BLU by the

Minister of Finance / Governor / Mayor / Regent. The determination given can be in the form of a full BLU status or a gradual BLU status. A full BLU is granted when the three requirements above (substantive, technical and administrative) have been satisfactorily fulfilled, while the status of a gradual BLU is granted when the substantive and technical requirements have been met but the administrative requirements have not been satisfactorily fulfilled. The status of this gradual BLU is valid for 3 (three) years and if it does not meet the requirements, it will be returned as an ordinary satker.

### BLU Financial Accounting and Reporting

Based on the regulation of the Minister of Finance (PMK) Number 76 / PMK.05 / 2008 concerning the Accounting Guidelines and Financial Reporting of the BLU, the BLU accounting system is as follows:



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1. Every BLU financial transaction must be accounted for and the supporting documents managed in an orderly manner.
2. The BLU accounting period covers a period of 1 (one) year, starting from January 1 to December 31.
3. The BLU accounting system consists of:
  - 1) Financial accounting system. A financial accounting system that produces financial reports for accountability, management and transparency purposes that are designed to at least present:
    - a. Information about financial position accurately and in a timely manner.
    - b. Information on the BLU's ability to obtain economic resources and the burdens that have occurred during a period.
    - c. Information on the source and use of funds during a period.
    - d. Information on budget execution accurately and in a timely manner and information on compliance with laws and regulations.
  - 2) Fixed Asset Accounting System  
Fixed asset accounting system that produces a report on fixed assets for the purposes of fixed asset management that is at least capable of producing:
    - a. Information on the type, quantity, value, transfer, and condition of the BLU's fixed assets.
    - b. Information about the type, quantity, value, mutation and condition of fixed assets not owned by the BLU but is under the BLU's management. In implementing the fixed asset accounting system, the BLU can use the accounting system for state-owned goods established by the minister of finance.
  - 3) Cost Accounting System  
The cost accounting system produces unit cost information per service unit, performance accountability or other information for managerial interests that is at least able to produce:
    - a. Information about the cost of goods manufactured.
    - b. Information about the unit cost per unit of service.
    - c. Information about analysis of variance (difference between standard cost and actual cost).The cost accounting system provides information that is useful in:
    - a. Planning and controlling BLU operational activities.
    - b. Decision making by the BLU leadership.
    - c. Calculation of the BLU service rate.

### **Performance Measurement**

Performance measurement is an important element of an organization's management control system, which can be used to control activities. Each activity must measure its performance in order to know the level of efficiency and effectiveness. An activity that does not have a performance measure will find it difficult for the organization to determine whether the activity is successful or failed (Mahmudi, 2005). Performance measurement is very important to assess the accountability of organizations and managers in producing better public services. Accountability does not merely show the ability or how public money is spent but also includes the ability to demonstrate that public money has been spent economically, efficiently and effectively. The performance measurement is based on performance measurement from the Directorate of Financial Management for Public Service Bodies Number KEP 219 / PB.05 / 2013 and Regulation of the Director General of Treasury Number PER-21 / PB / 2015.

BLU performance assessment includes; (1) Financial aspects, and (2) Service aspects. The financial aspects in question are financial ratios and compliance ratios, financial ratios as referred to are used to compare financial data contained in the financial statement post. Financial ratios include measurement of:

- a. Cash ratio (Cash Ratio), which is used to see the comparison between cash and cash equivalents with short-term liabilities.
- b. Current Ratio, which is used to see the comparison between current assets and short-term liabilities.
- c. Accounts Receivable Collection Period, which is used to see the comparison between trade receivables and business income in one year.



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- d. Fixed Assets Turn Over, which is used to view the comparison of operating income with fixed assets.
- e. Return on Fixed Assets, to see the comparison between the surplus / deficit before the profit / loss account, excluding investment income from the APBN, plus depreciation expense, with the acquisition value of fixed assets excluding construction in progress.
- f. Return on Equity, which is used to view the comparison between the surplus / deficit before the profit / loss account, excluding investment income from the APBN, plus depreciation expense, with equity after deducting the current year's surplus / deficit.
- g. The ratio of PNPB to operational costs, which is used to see the comparison between PNPB revenue and operational costs.

BLU management compliance is used to assess the level of BLU compliance with laws and regulations regarding BLU financial management, including:

- a. Preparation and submission of a definitive Business Plan and Budget (RBA);
- b. Preparation and submission of Financial Statements based on Financial Accounting Standards.
- c. Submission of an order for approval of BLU income and expenditure.
- d. Service Tariff Agreement.
- e. Accounting System Determination.
- f. Approval of account opening.
- g. Preparation of Standard Operating Procedures (SOP) for cash management.
- h. Preparation of Goods Management SOP.
- i. Preparation of Debt Management SOP.
- j. Preparation of SOP for the Procurement of Goods and Services.
- k. Preparation of SOP for Inventory Management.

The Service Aspect referred to is the quality of service and the quality and benefits to the community. Service quality is used to measure all forms of educational service activities at BLUs under the ministry of education and culture, the Ministry of Religion, and other education (official high schools, centers and polytechnics) under the ministry of health, ministry of finance, ministry of transportation, and ministry of industry to meet expectations users of goods and services. Quality and benefits to the community are used to measure the quality of public services in the education sector at BLUs under the ministry of education and culture, the Ministry of Religion and other education (official colleges, centers, and polytechnics) under the ministry of health, ministry of finance, ministry of transportation, and ministry of industry. against the requirements in accordance with the needs of the community.

The results of the BLU performance appraisal are determined based on the Total Score (TS) obtained by the BLU, with the classification criteria GOOD, MEDIUM, and BAD. The GOOD criteria consist of: (a) AAA, if  $TS > 95$ , (b) AA, if  $80 < TS < 95$ , and (3) A, if  $65 < TS < 80$ . MEDIUM criteria consist of: (a) BBB, if  $50 < TS < 65$ , (2) BW if  $40 < TS < 50$ , and (3) B, if  $30 < TS < 40$ . BAD criteria consist of: (a) CC, if  $15 < TS < 30$ , and (b) C, if the results of the assessment of the financial aspects achieved if the financial aspects achieved by the BLU are less than 50% (fifty percent).

### 3. RESEARCH METHODS

The object of research in this research is the State Higher Education, namely Sriwijaya University, which has implemented BLU since Sriwijaya University is one of the State Universities whose financial management has the status of a Public Service Agency, based on the Decree of the Minister of Finance Number; 190 / KMK.05 / 2009, dated May 26 2009, concerning the Establishment of Sriwijaya University in the Ministry of National Education as a Government Agency Implementing Financial Management for Public Service Bodies. Sriwijaya University, since 2010 has implemented performance-based financial system management.

This study uses a mixed research method between quantitative methods and qualitative methods. Research using a mixed method aims to complement the study results of the phenomenon under study and to strengthen the research results. The quantitative method was used because the Sriwijaya University Financial data analysis was carried out to get an overview of the financial performance of



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the PPK BLU Sriwijaya University in 2017. The qualitative method was used because interviews were conducted with related parties such as PKM (Student Activity Center), Head of Sub-Division of Finance, Budget Section, Academic Section, Section Acceptance of the Information and Communication Technology Development Institute, LP3M (Institute for Educational Development and Quality Assurance) and LPPM (Institute for Research and Community Service) regarding responses to the results of analysis that has been carried out and interviews with obstacles faced in achieving performance based on the provisions of the Public Service Agency Work Unit Education Service Sector. This study uses primary and secondary data. Secondary data is data that is indirectly obtained from the source in the form of Universitas Sriwijaya Profile Book, Business Strategy Plans, Minimum Service Standards, Budget Realization Reports, 2017 Business Plans and Budget (RBA), Competitive Grants Reports, Collaboration Reports, Outstanding Student Reports, Number of Students, Number of Lecturers, Number of Education Personnel, Number of Departments and their Accreditations, 2017 and 2018 Financial Reports and Audit Reports.

**Primary Data** Primary data is data obtained directly from the object of research. Primary data is obtained by means of interviews or interviews with related parties to provide information on the obstacles faced in achieving the Sriwijaya University performance targets. In this case the researcher conducted interviews with the head of the financial division, PKM, LPPM, LP3M, the Planning Division, the Academic Section, and the LPTIK.

The data collection method in this research is to use documentation and interview techniques. In this study the data processing of the research results was done manually with quantitative calculations for each performance indicator set by the Public Service Agency Work Unit both in the financial aspect and in the service aspect so that the processing results show the score / result which will later be used as the basis for the determination. Sriwijaya University's performance as a Public Service Agency. After the Unsri performance score was known, the researchers focused on the performance indicators that did not reach the targets set by the Public Service Agency Work Unit. This unachieved performance indicator is the basis for the researcher to conduct interviews with related parties regarding the problems faced so that they do not reach the predetermined score and the researchers also conduct interviews with performance indicators based on the work unit of the public service agency in the education service sector, whether the target of these indicators can accomplished or not.

### **Population and Sample**

#### **Population**

Population is a generalization area consisting of objects or subjects that have certain quantities and characteristics set by researchers to study and then draw conclusions (Sugiyono, 2016). The population in this study were related parties such as PKM (Student Activity Center), Head of Sub-Division of Finance, Budget Section, Academic Section, Admissions Section for the Information and Communication Technology Development Institute, LP3M (Institute for Educational Development and Quality Assurance) and LPPM (Institute for Research and Community Service. ) regarding the responses regarding the results of the analysis that has been carried out and interviews with the obstacles faced in achieving performance based on the provisions of the Work Unit of the Public Service Agency for the Education Service Sector.

#### **Sample**

Suharsimi Arikunto (2013) states that: "The sample is a part or representative of the population to be studied". The sample in this study were some related parties such as PKM (Student Activity Center), Head of Sub-Division of Finance, Budget Section, Academic Section, Admissions Section for the Information and Communication Technology Development Institute, LP3M (Institute for Educational Development and Quality Assurance) and LPPM (Institute for Research and Service The public) regarding the responses regarding the results of the analysis that has been carried out and interviews with the obstacles faced in achieving performance based on the provisions of the Work Unit of the Public Service Agency for the Education Service Sector.



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## Research design

Based on the type of data and analysis, this research is quantitative in nature. According to Sugiyono (2016) "quantitative data is data in the form of numbers or quantitative data that are extrapolated". So this research emphasizes on testing theories through measuring research variables with numbers and analyzing with statistical procedures. This study also uses qualitative data through documentation and interview techniques.

## Data collection technique

The data collection techniques used in this study were documentation and interviews.

## Data analysis technique

### Descriptive Analysis

Descriptive analysis aims to describe or explain the description under study based on the performance measurement based on the performance measurement from the Directorate of Financial Management for Public Service Bodies Number KEP 219 / PB.05 / 2013 and Regulation of the Director General of Treasury Number PER-21 / PB / 2015.

Based on the BLU performance appraisal is determined based on the Director General of Treasury Regulation Number PER-21 / PB / 2015 concerning Amendments to the Regulation of the Director General of Treasury number: PER-32 / PB / 2014 concerning Guidelines for Performance Assessment of Public Service Bodies in the Education Sector, BLU Performance Assessors based on the Total Score (TS) obtained by BLU, with the classification criteria GOOD, MEDIUM, and BAD. The GOOD criteria consist of: (a) AAA, if  $TS > 95$ , (b) AA, if  $80 < TS < 95$ , and (3) A, if  $65 < TS < 80$ . MEDIUM criteria consist of: (a) BBB, if  $50 < TS < 65$ , (2) BW if  $40 < TS < 50$ , and (3) B, if  $30 < TS < 40$ . BAD criteria consist of: (a) CC, if  $15 < TS < 30$ , and (b) C, if the results of the assessment of the financial aspects achieved if the financial aspects achieved by the BLU are less than 50% (fifty percent).

The calculation of BLU performance in the education service sector includes; (1) the financial aspect with the highest score of 30, consisting of the financial ratio sub-aspect with the highest score of 19.5%, and the BLU financial management compliance sub-aspect with the highest score of 10.5, and (2) the service aspect with the highest score a maximum of 70, consisting of; Study program accreditation sub-aspect by the National Accreditation Board for Higher Education / Authorized Officials with the highest score of 30, the highest achievement sub-aspect of 32, and the Quality and Benefit sub-aspect with the highest score of 8.

## 4. RESULTS AND DISCUSSION

The performance assessment of BLU Unsri with financial aspects and service aspects can be seen in table 1 below:

**Table 1: Indicator in Financial Aspects and Indicator on Service Aspects**

Indicator in Financial Aspects			
No	Sub Aspects / Score Indicators	Score	Target
<b>1</b>	<b>Financial Ratio</b>	<b>13,9</b>	<b>19,5</b>
	a. Cash Ratio	1	3
	b. Current Ratio	4,5	4,5
	c. Account Receivable Collection Period	3,6	4,5
	d. Fixed Assets Turnover	1,5	1,5
	e. Return on Fixed Assets	0,3	1,5
	f. Return on Equity	0,3	1,5
	g. Ratio of PNBP Revenue to operational costs	2,7	3
<b>2</b>	<b>BLU Financial Management Compliance</b>	<b>7,755</b>	<b>10,5</b>



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a. Definitive Business Plan and Budget (RBA)	1,5	1,5
b. Financial Statements Based on SAK	1,23	3,3
c. Order for Endorsement of BLU Income and Expenditure	2,4	2,4
d. Service Tariff	0,225	0,9
e. Accounting System	0,6	0,6
f. Account Approval	0,3	0,3
g. SOP for cash disbursements	0,3	0,3
h. Accounts Receivable Management SOP	0,3	0,3
i. Debt Management SOP	0,3	0,3
j. SOP for Goods and Services Management	0,3	0,3
k. SOP for Inventory Management	0,3	0,3
<b>TOTAL FINANCIAL ASPECT SCORES (1 + 2)</b>	<b>21,655</b>	<b>30</b>

Indicator on Service Aspects			
No	Sub Aspects / Score Indicators	Score	Target
<b>1</b>	<b>Quality of Service</b>	<b>53</b>	<b>62</b>
	<b>a. Accreditation</b>	<b>30</b>	<b>30</b>
	Study program accreditation by BAN PT / authorized official		
	<b>b. Achievement</b>	<b>23</b>	<b>32</b>
	1. Adequate Percentage of Education Personnel Ratio Deviation	2	10
	2. Percentage of new students who re-register compared to new students who are accepted	12	12
	3. The percentage of increase in the number of students with excellent achievement in academics and / or interests and talents	4	5
	4. Percentage of Competitive Grants obtained by Tertiary Education Institutions	5	5
<b>2</b>	<b>Quality and Benefits to Society</b>	<b>6,56</b>	<b>8</b>
	Customer Satisfaction	6,56	8
<b>Total score of service quality and Quality and Benefits to Society (1 + 2)</b>		<b>59,56</b>	<b>70</b>
<b>TOTAL OF FINANCIAL AND SERVICES ASPECT SCORES (Tables 1 and 2)</b>		<b>81,215</b>	<b>100</b>

From table 1 above, the BLU unsri is seen from the aspect of financial ratios with a score of 13.9 and the compliance aspect of BLU financial management with a score of 7,755, so that the total score from the financial aspect is 21.655. In Service aspects, BLU unsri is seen from the service aspect with the service quality sub-aspect with a score of 53 and the quality sub-aspect and benefits to the community with a score of 6.56, so that the total score from the service aspect is 59.56.

Based on the results of calculating the performance of BLU Sriwijaya University in 2018, the financial performance score is 21,655 and the service performance score is 59.56 so that the total score is 81.215, so that the BLU performance of Sriwijaya University based on the Public Service Agency Work Unit in the Education Service Sector is in the GOOD category with the predicate A A. This category is based on the standards set by the Service Agency Work Unit

### 5. CONCLUSIONS

From the results of calculations that the researchers did based on the perdirjen number Per-21 / PB / 2015 that the performance of Sriwijaya University in 2018 was Good with an AA predicate score of 81.215.



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### LIMITATION AND STUDY FORWARD

Sriwijaya University's performance with a score of 81.215 has not been satisfactory, this is due to several things such as:

- a. The target of financial ratios has not been achieved, namely Cash Ratio, Accounts Receivable Collection Period, Fixed Asset Turn Over, Return On Fixed Asset, Return On Equity, Ratio PNPB revenue against operational costs.
- b. The target has not been achieved in compliance with the financial management of Public Service Bodies, including the schedule for the preparation of the RBA that is not on time, the fulfillment of financial services based on SAK, and service rates that are still based on the determination of the minister / head of the institution.
- c. The target has not been achieved in the service aspect, namely in service quality such as achievement, there is still no number of students based on SPM, a decrease in student achievement and a decrease in the number of competitive grants in 2018. In addition to service quality low scores are also obtained from measured service satisfaction with a survey, Sriwijaya University has not conducted a survey based on KEP / 25 / M.PAN / 2/2004.

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## ONLINE FOOD DELIVERY DURING PANDEMIC COVID-19

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### Abstract

**Purpose:** This research was conducted to find out some information about consumer behavior on online food delivery during the Covid-19 pandemic and to prove empirically whether perceived value affects the consumers' intention to use online food delivery.

**Research Methodology:** This research used path analysis to see the significant influence of perceived value on the intention to use online food delivery

**Results:** The results show that perceived value has a significant influence on the consumer intention to use online food delivery and based on survey of 109 respondents in Indonesia, known that the frequency of using online food delivery increases during the Covid-19 pandemic

**Limitations:** This research only covers few information about the consumer behaviour in online food delivery. Further research can complete it with other various consumer behaviour study, especially in online food delivery.

**Contribution:** Pandemic Covid-19 that faced by many countries all over the world has made this business become the alternative solution for those who wants to buy food from home. The research about the consumer behavior in online food delivery would be useful for any party that interest to build a competitive company in online food delivery industry

**Keywords:** *Online Food Delivery, Pandemic Covid-19, Perceived Value, Intention to Use*

### 1. INTRODUCTION

The Covid-19 pandemic that spread out all over the world has made a very big change in consumer behaviour. Indonesia is one of the country that affected by the Covid-19 Pandemic. Various of government policies have been implemented to protect the public from being easily exposed to this virus. One of them is the Work from Home (WFH) policy. People's behaviour has begun to change since the implementation of Work from Home. People are getting used to isolating themselves at home and reducing activities outside the home, including dine-in at the restaurant. Some people started to explore their cooking skills since WFH and some other use online food delivery services to buy their favourite menus on their favourite restaurants.

Food & Beverage industry also started to change their business strategies since the pandemic Covid-19. Restaurants that used to rely on the arrival of people to their restaurant, now can't just stand and wait. They have to do something to survive during this pandemic. Many restaurants have to "pick up the ball", approach their customers and provide solutions to customers who prefer to stay at home and reduce activities outside the home to survive. Even the restaurants like Pizza Hut had to sell on the streets in order to get sales figures.

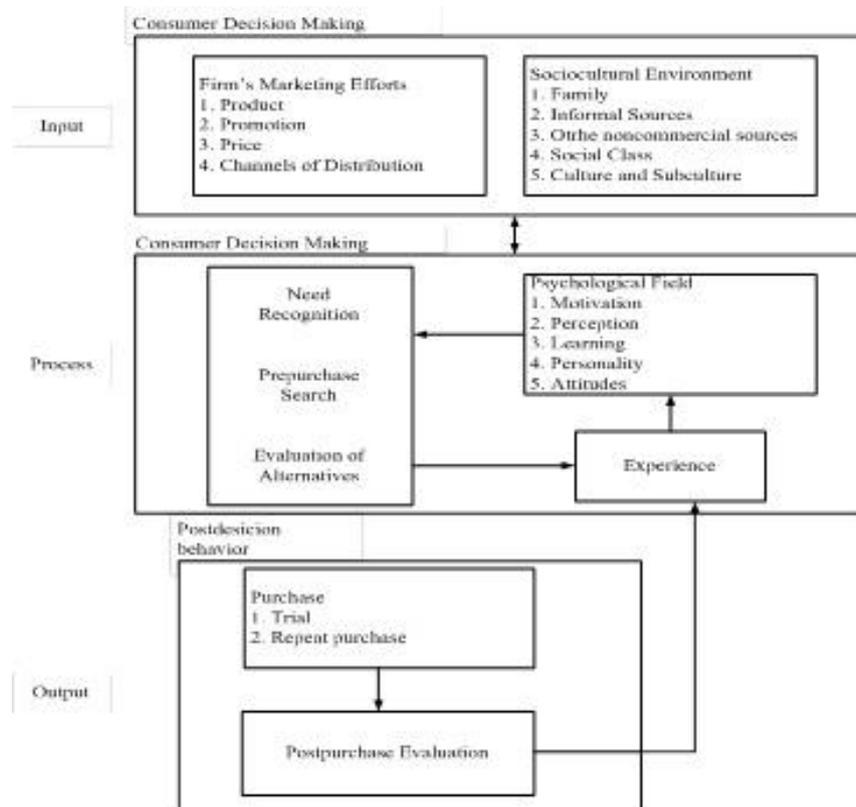
The use of internet has increased since the Pandemic, making the industry such as Food & Beverage have to pay more attention to the performance of their online food delivery services as one of the solutions offered to consumers during the pandemic. Online food delivery also has become a trending business in China and user-perceived value was also positively correlated with attitudes and intention to continuously use of online food delivery (Cho et al., 2019). Food & Beverages industry can continue to win the hearts of consumers by increasing the value of their products to determine demand during the pandemic. Value is a comparison between the benefits received by consumers, or the trade-off between give and get (Zeithaml, 1988) and (Lin et al., 2005)

Seeing the many major changes in purchasing behaviour that occurred in society since the pandemic Covid-19, this study will try to find new findings regarding consumer behaviour from online food delivery and prove empirically the influence of perceived value to consumer intention to use online food delivery during the pandemic covid-19. These findings are expected to assist the company to improve their online food delivery service and create competitive advantage in order to survive in the world changing due to pandemic Covid-19.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *Perceived Value to Intention to Use*

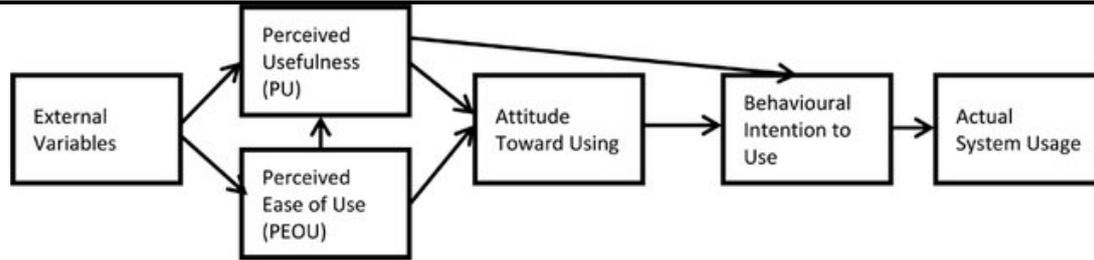
The evaluation of alternatives is one of the stages in the consumer decision-making process. This process can be seen in the image model of the decision making process (Schiffman & Kanuk, 2007) as follow:



Source : (Schiffman & Kanuk, 2007)

**Figure 1: Consumer Decision Making Process**

Consumers will compare the value of each product/service they want to buy. Perceived value is consumer's perception to overall utility of a product or service by comparing the consumer get with what they gift (Zeithaml, 1988). Based on the definition of value perception, it can be concluded that consumer value perception is the same as the perceived usefulness contained in the Technology Acceptance Model (TAM). This TAM model can be seen in Figure 2 as follow:



Source : (Davis, 1989)

**Figure 2: Technology Acceptance Model (TAM)**

This model said that perceived of usefulness can affect behavioral intention to use technology. Study about perceived value to intention to use technology have been developed by many researchers. Perceived value had been developed in 4 indicators included performance value, value-for money, emotional value and social value (Hsu & Lin, 2015). Based on the results of this research, it is known that among all the indicators, value for money is the only factor that can affect user intention to purchase a paid application. Perception of benefits received by consumers also significantly affect the intention to use food delivery application in Bangkok (Elango et al., 2019).

*Relevant Previous Research:*

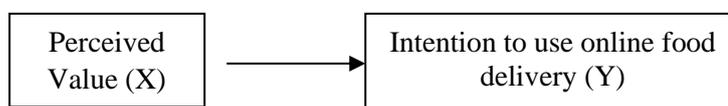
**Table 1: Relevant Previous Research**

No.	Title	(Author, year published)	Analysis technique	Important Results
1.	Mobile Apps Use and WOM in the Food Delivery Sector: The Role of Planned Behavior, Perceived Security and Customer Lifestyle Compatibility	(Belanche et al., 2020)	PLS-SEM	<ul style="list-style-type: none"> <li>Security influences intention to spread WOM</li> <li>Customer lifestyle compatibility influences intention to use the food delivery application</li> <li>Perceived control important factor for older customers, before they recommend to other customers</li> </ul>
2.	How the consumer’s attitude and behavioural intentions are influenced: A case of online food delivery applications in India	(Gupta & Duggal, 2020)	exploratory factor analysis	<ul style="list-style-type: none"> <li>perceived risk and benefit factors influence consumers’ usage on online food delivery.</li> <li>Decrease in risk perception or an increase in</li> <li>benefit perception of consumers will positively influence consumer attitude towards the use of online food delivery.</li> </ul>
3.	The Analysis Of Perceived Value Factors Affecting Parents’ To Purchase Packaged Baby Food Products In Thailand	(Limsuwan, 2019)		Major dimensions of consumers’ choice to purchase baby food products brand name value, distribution factors, healthy and safety factors, Product design, proximity, Influencer factors, Online promotional factors, Perceived convenience, Monetary Value, Sensory Appeal, Traditional promotional factors

4.	Influence of trust and perceived value on the intention to purchase travel online: Integrating the effects of assurance on trust antecedents	(Bonsón Ponte et al., 2015)	Partial Least Squares	The result shows that perceived value and trust influences online purchase intention
5.	The Relationship Between Food Delivery Apps Attributes Towards Customer Perceived Value Among Young Working Adults In Shah Alam	(Azizul et al., 2019)	Descriptive Statistic	Important quality attribute on the food delivery application among young working adult is price

### Research Framework

Based on the relevant theory and previous research, the research framework can be described as follow:



**Figure 3: Research Framework**

The hypotheses made in this study include :

H1 : Perceived Value (X) has a significant effect on Intention to Use (Y)

### 3. RESEARCH METHODOLOGY

This research is using primary data by distributing questioner to the user of online food delivery in Indonesia. Sample of respondents were taken with non-probability sampling technique with 109 respondents. The instrument scale level using a numerical scale 1 to 7 with positive and negative pole. This research is using path analysis to analyze the influence of perceived value to the consumers' intention in using the online food delivery during the pandemic Covid-19. The operational variable of this research could be seen in table as follow:

**Table 2: Operational Variable**

Variable	Indicators	Reference
Perceived Value	<ul style="list-style-type: none"> <li>• The cheap prices</li> <li>• Food prices according to quality</li> <li>• The shipping cost is appropriate</li> <li>• The use of the quota is accordance with the clarity of features and services</li> <li>• Costs that have been incurred are in accordance with the benefits obtained</li> </ul>	(Zeithaml, 1988) (Lin et al., 2005)
Intention to use online food delivery	<ul style="list-style-type: none"> <li>• Interested to use online food delivery</li> <li>• In the future will use online food delivery</li> <li>• Buying food online and use online food delivery in the near future</li> </ul>	(Corbitt et al., 2003)

## 4. RESULTS AND DISCUSSIONS

Profile of the respondent that use in this research could be seen in the table as follow:

**Table 3: Respondent Profile**

Variable	Category	Frequency	%
<i>Gender</i>	Male	28	25.7 %
	Women	81	74.3 %
	<b>Total</b>	<b>100</b>	<b>100%</b>
<i>Age</i>	15-24 years	58	53.2%
	25-34 years	24	22%
	35-49 years	24	22%
	50-64 years	3	2.8%
	<b>Total</b>	<b>100</b>	<b>100%</b>
<i>Domiciled</i>	Baturaja	5	4.6%
	Denpasar	1	0.9%
	Depok	1	0.9%
	DKI JAKARTA	1	0.9%
	Jakarta Selatan	1	0.9%
	Karawang	1	0.9%
	Lubuklinggau	1	0.9%
	Mojokerto	1	0.9%
	Palembang	93	85.3%
	Surabaya	3	2.8%
	Yogyakarta	1	0.9%
	<b>Total</b>	<b>109</b>	<b>100%</b>
<i>Occupation</i>	Student	48	44 %
	Civil Servants / BUMD	30	27.5%
	Employee of Private Company	11	10 %
	Professional / Entrepreneur	8	7.3 %
	Housewife	4	3.7 %
	Lecturer	6	5.5 %
	Job Seeker	2	2 %
	<b>Total</b>	<b>100</b>	<b>100%</b>

Some questions had been delivered to the respondent that have been using online food delivery service during the pandemic Covid-19. The questions are related to their behaviour in online food delivery. The result of the questions could be seen on the table 3 as follow:

Item 1 : Main reasons for using online food delivery services during the Covid-19 pandemic

No.	Result	Frequency	Percentage
1	Safe because you don't have to leave the house	47	43.1
2	Save more time	2	1.8
3	Practical	41	37.6
4	Interesting promotions or discounts	16	14.7
5	No need to queue	3	2.8
<b>Total</b>		<b>109</b>	<b>100%</b>



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Item 2: The frequency of using online food delivery services during the Covid-19 pandemic, becomes ....

No.	Result	Frequency	Percentage
1	The same / no effect	40	36.7
2	Increase	62	56.9
3	Decrease	7	6.4
<b>Total</b>		<b>109</b>	<b>100%</b>

Item 4 : Average total expenditure for food service per transaction

No.	Result	Frequency	Percentage
1	< Rp. 50.000	27	24.8
2	> Rp. 500.000	1	.9
3	Rp. 100.000 - Rp. 250.000	19	17.4
4	Rp. 250.000 - Rp. 500.000	3	2.8
5	Rp. 50.000 - Rp. 100.000	59	54.1
6	< Rp. 50.000	27	24.8
<b>Total</b>		<b>109</b>	<b>100%</b>

### *Distribution of Frequency*

The distribution of the respondents' answers on perceived value and intention of using online food delivery is obtained in the following table:

**Table 4: Distribution of Frequency**

No.	Item	(1)	(2)	(3)	(4)	(5)	(6)	(7)
X <sub>1</sub>	The price of food in the online food delivery service application that I use is cheaper	5	16	10	25	23	22	8
		4.6%	14.7%	9.2%	22.9%	21.1%	20.2%	8%
X <sub>2</sub>	The price of food offered by the online food delivery service application that I use is in accordance with the quality received	0	3	5	13	29	48	11
		0%	2.8%	4.6%	11.9%	26.6%	44.0%	10.1%
X <sub>3</sub>	The shipping fee charged by the online food delivery service that I use is appropriate and realistic	1	3	6	19	31	37	12
		0.9%	2.8%	5.5%	17.4%	28.4%	33.9%	11.0%
X <sub>4</sub>	The internet data usage for using online food delivery service application is according with the clarity of features and services	0	2	2	11	30	37	27
		0%	1.8%	1.8%	10.1%	27.5%	33.9%	24.8%
X <sub>5</sub>	The cost incurred when using the online food delivery service is according with the benefits obtained	0	1	4	12	23	48	21
		0%	0.9%	3.7%	11%	21.1%	44%	19.3%
Y <sub>.1</sub>	I am interest in using this online food delivery service	0	2	1	10	19	53	24
		0%	1.8%	0.9%	9.2%	17.4%	48.6%	22%



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Y <sub>2</sub>	I will buy online food and use this online food delivery service in the future	0	1	2	11	25	44	26
		0%	0.9%	1.8%	10.1%	22.9%	40.4%	23.9%
Y <sub>3</sub>	I will be buying food online and using this online food delivery service in the near future	0	1	2	16	28	39	23
		0%	0.9%	1.8%	14.7%	25.7%	35.8%	21.1%

*Source: Output Data, SPSS 22, 2020*

### *Instrument test*

The reliability or interaction between the respondent and overall items of the instrument measured using the value of Cronbach's Alpha. The consistency of respondent answer could be seen from the value of the person reliability. The quality of items in the instrument could be seen from the value of the item reliability. These values were calculated with the RASCH model using Winstep software. Based on the output table of summary statistics can be seen that the overall interaction between the respondent and the overall question items are good (value of Cronbach's Alpha is 0.85). The consistency of the answers from the respondents is good because the Value of Person Reliability is 0.81. Meanwhile, the quality of the question items in the questionnaire is special because the Item Reliability shows value 0.95 which is > 0.94. The summary statistics can be seen in the following table:

**Table 5: Summary Statistic Rasch Model**

	Value
Cronbach Alpha (KR-20) Person Raw Score	0.85
"TEST" Reliability	
Person Reliability	0.81
Item Reliability	0.95

*Source: Winstep output, 2020*

### *Path Analysis*

#### *Variable Perceived Value to Intention to Use*

Path analysis was carried out to measures the effect of the perceived value variable on intention to use. Based on the output results, it is known that the R<sup>2</sup> value is as follows

**Table 6. Value of R and R Square**

Model	R	R Square
1	0,922	0,850

*Source: Output data, SPSS 22, 2020*

#### Coefficient value

**Table 7. Coefficient Value**

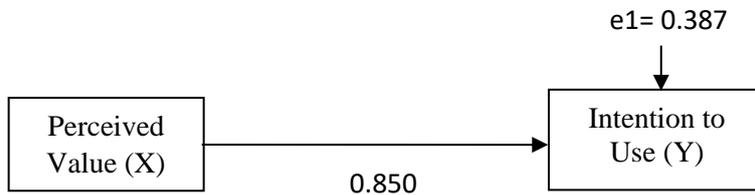
Model	Standardized Coefficients	Sig.
	B	
Constant		
X <sub>1</sub>	0.922	0.000

*Source: Output Data, SPSS 22, 2020*

### *Model Path Coefficient*

Based on the results of the coefficient value, it is known that the significant value is 0.000. This figure proves that perceived value can significantly influence intention to use because the value is less than

0.05. Thus the results of the study prove that X has a significant effect on Y. The value of R Square value shows that the variable X can explain the variable Y by 85 %. The e1 value of this path is  $e1 = \sqrt{1-0.85} = 0.387$



**Figure 4: Path Coefficient**

### Discussion

The results of the questionnaire data show that the frequency of purchase using online food delivery during the pandemic tends to increase (56.9%), some of them is constant because they do not feel affected by this pandemic (36.7%) and few of them decreased (6.4%). The main reason for consumers to use online food delivery services during the Covid-19 Pandemic was dominated by respondents who felt safe because they did not need to leave the house to buy food at restaurants (47%) and according to respondents, online food delivery was more practical (37.6%). The average spending per transaction using the online food delivery service is Rp. 50,000-Rp. 100,000, -. Respondent mostly use online food delivery service by GoFood from Gojek (62%) and Grabfood from Grab (39%).

Since the Covid-19 pandemic, online food delivery services are not only provided by GoFood and GrabFood but local delivery services have emerged. One of the respondent in the city of Baturaja, South Sumatra uses local delivery service because applications such as GoFood and GrabFood not available in their city. Consumers' perception of the value that they get on using the online food delivery seem high. The result of the analysis shows that perceived value is proven to significantly influence the intention to use online food delivery. Perception of value can explain well the variable of intention to use with 85 % of value. The results of these findings support research from (Cho et al., 2019).

## 5. CONCLUSION

The Covid-19 pandemic has indeed forced many businesses to close their businesses, but many new businesses have also emerged due to the impact of the Covid-19 pandemic such as online food delivery. Food & Beverage company could design their marketing strategies in order to make their product/service can be marketed in maximum by recognizing their customer behaviour (Iisnawati et al., 2020). The results of this study concluded that the important thing that needs to be considered by the online food delivery industry is to increase the value of their products / services in the eyes of consumers. Several indicators that could be improved to increase product / service value in online food delivery are the price of the online food preferably cheap, the price of food should consider with the quality they bring, shipping costs are according to mileage, costs of internet data usage should consider the clarity of the features and services provided after that the total cost should be consider the benefits obtained by the customer. These indicators are closely related to value-for-money and the same as the previous research about value-for-money indicator(Hsu & Lin, 2015), these factors can influence consumer interest in using online applications.

### LIMITATION AND STUDY FORWARD

This research only covers few information about the consumer behaviour in online food delivery. Pandemic Covid-19 that faced by many countries all over the world has made this business become the alternative solution for those who want to buy food from home. The research about the consumer behaviour in online food delivery would be useful for any party that interest to build a competitive company in the online food delivery industry. Further research can complete it with other various consumer behaviours, especially in online food delivery.



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### **SPIRITUAL MOTIVATION AND RELIGIOUS PERFORMANCE: A CASE STUDY ON EMPLOYEES OF SHARIA BUSINESS UNIT OF REGIONAL DEVELOPMENT BANK IN SOUTH SUMATERA**

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#### **Abstract**

**Purpose:** This study aims to determine the effect of spiritual motivation which consists of aqidah motivation, worship motivation, and muamalah motivation, either partially or simultaneously on the religious performance of employees of sharia business unit at the Regional Development Bank in South Sumatra.

**Research Methodology:** The population in this study were employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. The sampling method used was the determination of hotel samples by proportional stratified random sampling. Respondents in the study were 79 employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. The instrument for measuring the variables in this study was a questionnaire distributed to respondents. The questionnaire was measured using a Likert scale of 1-5. The data analysis technique used is multiple linear analysis.

**Results:** The results of the study concluded that the aqidah motivation, worship motivation, and muamalah motivation partially had a positive and significant effect on the religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. The results also show that the aqidah motivation, worship motivation, and muamalah motivation simultaneously had a positive and significant effect on the religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.

**Limitations:** This research is limited in the number of respondents and the variables studied. This study is expected to be a reference for other researchers who want to the religious performance on employees of sharia banks.

**Contribution:** This research studies deeply about the concept of spiritual motivation and religious performance. The proposition of the variables in this study has never been studied before, either conceptually or in the unit of analysis, namely sharia business unit of Regional Development Bank in South Sumatra and has become a novelty of this research.

**Keywords:** *Spiritual Motivation, Religious Performance, Sharia Business Unit, Regional Development Bank*

## **1. INTRODUCTION**

Banking in Indonesia adopts a Dual Banking System which consists of two systems, namely conventional and sharia banking (Remi, 2014). As one of the countries with the largest Muslim population in the world, Indonesia is expected to become one of the largest sharia banking bases in the world. However, the amount of Islamic banking assets is considered very small when compared to all banking industry assets in Indonesia. Based on data from the Indonesian Financial Services Authority (OJK, 2017), the total assets of the Islamic banking industry in Indonesia in 2016 were IDR 357 trillion or 5.3% of the total assets of the Indonesian banking industry which reached IDR 6,731 trillion.



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The achievement of Indonesia's Islamic banking assets is still below that of other countries. Based on data from the Saudi Arabian Monetary Authority (SAMA, 2017), the number of Islamic banking assets in Saudi Arabia reached 51%. Likewise with Malaysia, were based on data from Bank Negara Malaysia (BNM, 2017), the total assets of Islamic banking in Malaysia reached 27%.

One province in Indonesia that has total Islamic banking assets under the national sharia banking assets is South Sumatra Province. Based on information from the Sharia Banking Statistics of the Financial Services Authority (OJK), total banking assets in South Sumatra amounted to IDR 123.86 trillion, whereas the assets of Islamic banking in South Sumatra in that period were only IDR 5.861 trillion or 4.73%. The share of sharia banking in South Sumatra Province is still below the share of national sharia banking at 5.3% (OJK, 2017).

The low share of Islamic banking in South Sumatra is in line with the low Islamic financial literacy in South Sumatra. Based on information from the OJK National Survey and Financial Literacy, the Islamic financial literacy index in South Sumatra is only 8.36%, while the South Sumatra financial literacy index stands at 31.27% (OJK, 2017). This information reveals that the knowledge and ability of the people of South Sumatra on Islamic financial management is only 8.36%, while the remaining 91.64% do not have the knowledge and skills regarding Islamic financial management.

Efforts to improve financial literacy and Islamic banking are the responsibility of many parties, not only the responsibility of educators. Islamic banking actors and practitioners are also responsible for increasing financial literacy and Islamic banking. Islamic banking actors are faced with two objectives, namely, profit-oriented and Falah oriented. Profit oriented in which Islamic banking is expected to provide performance that generates benefits for its stakeholders. Meanwhile, Falah-oriented means that Islamic banking is expected to produce religious performance produced by its employees, including making Islamic banking as one of the da'wah institutions. Thus, it is hoped that Islamic banking actors can provide religious performance that can be oriented towards increasing financial literacy and inclusion and Islamic banking in Indonesia and South Sumatra in particular.

In the history of human life, one of the phenomena that occur is religiosity. This religiosity is always manifested in the side of human life. A person's religiosity will include various dimensions: the dimension of belief (ideological), the dimension of worship (ritualistic), the dimension of appreciation (experiential), the dimension of practice (consequential) and the dimension of religious knowledge (Ancok, 1995). The dimension of belief contains expectations in which a religious person clings to certain theological views and acknowledges the truths of his religious doctrine. The religious dimension contains religious ritual behaviour, the obedience of someone who is religious, which shows a commitment to his religion. The dimension of appreciation contains experiences, perceptions that a person experiences in religion. The dimension of religious knowledge refers to religious people who at least have knowledge of basic beliefs, scriptures and traditions. While the practice dimension is the results of one's religious beliefs, practices, practices and knowledge from day to day.

Religious performance can be influenced by spiritual motivation which consists of aqidah motivation, worship motivation, and muamalah motivation (Wibisono, 2002; Muafi, 2003; Shofwa, 2013). Several previous studies were conducted to determine the effect of spiritual motivation on religious performance, however, the numbers are still relatively limited. Wibisono (2002) conducted research on the effect of spiritual motivation on religious performance of employees in the industrial sub-sector in manufacturing in Batam, Indonesia. The results of this study indicate that spiritual motivation has a positive effect on religious performance, especially on the aqidah motivation and muamalah motivation, while the religious motivation variable has a negative effect on religious performance. The results of this study can be a research gap why this research was conducted because there are variables in spiritual motivation that have a negative effect on religious performance, whereas according to the theory it should have a positive effect.



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Previous research was also conducted by Muafi (2003) which aims to determine the effect of spiritual motivation on religious performance in the industrial area of Rungkut Surabaya. The results showed that the variables that form the concept of spiritual motivation, namely aqidah motivation, worship motivation, and muamalah motivation together have a significant effect on the religious performance of employees in the industrial area of Rungkut Surabaya.

Other previous research was also conducted by Shofwa (2013), in which the study was conducted to determine the effect of spiritual motivation on the religious performance of lecturers and staff of STAIN Purwokerto. The results of these studies indicate that spiritual motivation has a significant effect on the religious performance of lecturers and staff of STAIN Purwokerto.

This study aims to determine the effect of spiritual motivation which consists of aqidah motivation, worship motivation, and muamalah motivation, either partially or simultaneously on the religious performance of employees of sharia business unit at the Regional Development Bank in South Sumatra.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Meta Motivation Theory

The Grand Theory used in this study is the Metamotivation Theory. The humanistic approach recognizes the existence of religion. Maslow in his theory expresses the concept of meta motivation outside the five hierarchies of needs. Mystical or peak experience is part of meta motivation which describes the religious experience, in which in this situation humans experience very deep religious experiences. The person is detached from physical reality and one with transcendental powers. According to Maslow, this level is part of human perfection (Ancok, 1995).

Metamotivation theory is closely related to religious performance. Religious performance performed by a person indicates the existence of religious physiological performance, religious psychological performance and spiritual performance (Wibisono, 2002). The essence of religious performance is in line with meta motivation theory, in which a person is motivated to work because he wants to get closer to the Creator, as a means of worship, and achieve mystical or peak experience.

#### The Religious Performance

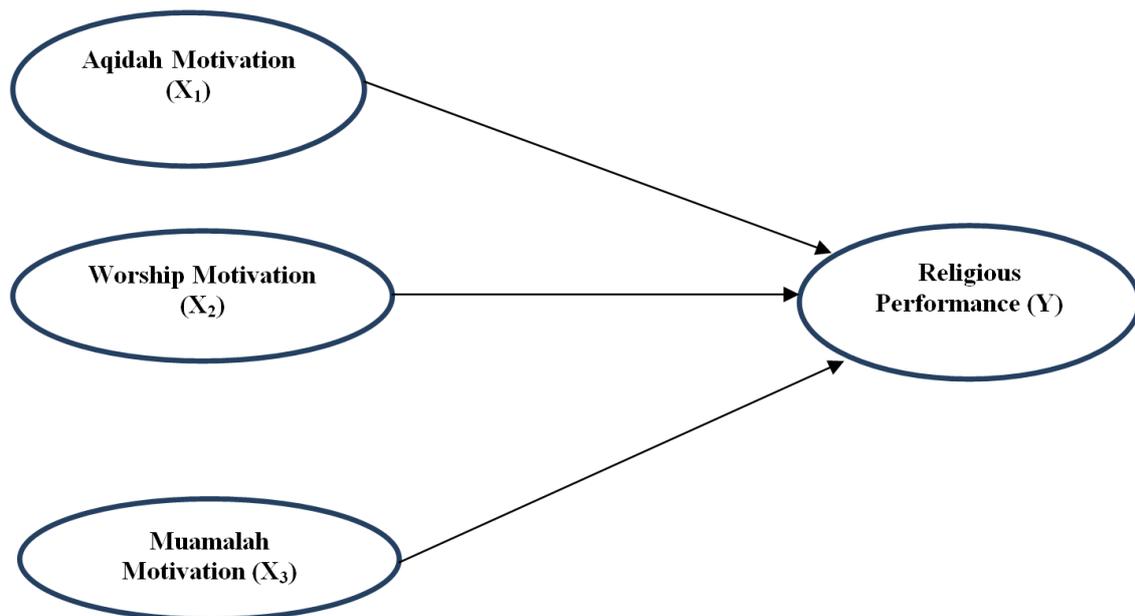
The religious performance consists of three main dimensions, namely religious physiological performance, religious psychological performance and spiritual performance (Wibisono, 2002). The performance of religious physiology means that individuals must realize that nature and everything in it must be fully utilized for production efficiently and effectively, realizing that individuals have the ability to work and produce which must be mobilized for all their potential towards achieving human beings, technology must be utilized appropriately and environmentally friendly, and fully aware that capital is one of the factors of production that must be used efficiently and free from usury.

The performance of religious psychology means that individuals must realize that health is a gift that must be used for work and production, social relationships with colleagues/workgroups must be harmonious to improve performance, rewards (gifts) must be grateful as a manifestation of rewards and punishments must be carried out sincerely and promise not to repeat mistakes as a manifestation of corporate punishment and to continue to improve self-quality (self-actualization) in order to improve performance. Meanwhile, spiritual performance means that individuals must realize that tawakal to Allah must be accompanied by ihtiar, work and production, honesty in working and production, maintaining the quality of work, and working and producing sincerely because of Allah (Wibisono, 2002).

## Spiritual Motivation

Bakran & Adz-Dzakiy (2006) suggest that spiritual motivation is the drive of human nature to fulfil spiritual needs. In the Koran, spiritual motivation is a motivation which has the basis of innate slander in human creation. Basically, humans have motivation from the bottom of their hearts that pushes them to think and know their creator and creator of the universe. Then encourage people to worship and take refuge to ask for help from Allah. This creates a sense of security and peace of protection and cares from Allah (Najati, 2001).

Ansari (2004) states that spiritual motivation is divided into three, namely aqidah motivation, worship motivation, and muamalah motivation. The motivation for aqidah is a belief in life, that is, a commitment that starts from the heart. So, the motivation of aqidah can be interpreted as an internal motivation that arises from the power of the aqidah. Worship is a divine order that regulates the direct ritual relationship between the servant of Allah and his Lord whose procedures are specified in detail in the Qur'an and the Sunnah of the Prophet. Meanwhile, the motivation for worship is a motivation that people who do not have a religion have never done, such as prayer, prayer and fasting. If it is related to work activities, worship is still in a process stage, while the output of worship is muamalah. Muamalah is a divine order that regulates human relations with fellow humans and humans with objects or material. Muamalah motivation means regulating human needs such as primary needs (basic needs), secondary (pleasure) with the obligation to be able to improve performance and primary needs (luxury) which are prohibited by Islam (Ansari, 2004).



**Figure 1: Theoretical Framework**

## Hypothesis

Based on the literature review, the following hypothesis can be formulated:

1. Aqidah Motivation has a significant effect on religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.
2. Worship Motivation has a significant effect on religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.
3. Muamalah Motivation has a significant effect on religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.



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4. Aqidah Motivation, Worship Motivation, and Muamalah Motivation simultaneously have a significant effect on religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.

### 3. RESEARCH METHODOLOGY

The population in this study were employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. The sampling method used was the determination of hotel samples by proportional stratified random sampling. This technique is used when the population has elements that are not homogeneous and proportionally stratified. Respondents in the study were 79 employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra.

The instrument for measuring the variables in this study was a questionnaire distributed to respondents. The questionnaire was measured using a Likert scale of 1-5. In this study, each questionnaire question must meet valid and reliable data quality. The instrument in this study was declared valid if the data obtained could accurately answer the research objectives to be achieved. It is declared reliable if the same research instrument can be consistent or stable when it is reused in further research.

Classic assumption testing is needed to determine whether the estimation results carried out are completely free of heteroscedasticity symptoms, multicollinearity symptoms, and autocorrelation symptoms. The regression model can be used as an unbiased estimation tool if it meets the BLUE (Best Linear Unbiased Estimator) requirements, which is no heteroscedasticity, no multicollinearity, and no autocorrelation. The data analysis technique used is multiple linear analysis.

### 4. RESULTS AND DISCUSSIONS

Respondents in this study were 79 people consisting of 50 female respondents (63.3%) and 29 male respondents (36.7%). Most of the respondents' education level is Bachelor degree (60.5%), Diploma degree (29.3%), and Master degree (10.2%).

The instrument in this study has met the stages in the instrument test, namely the validity test and reliability test. All statement items in the instrument are declared valid and reliable in accordance with the principles in the instrument test. The regression model used as an estimation tool in this study has also met the requirements of BLUE (Best Linear Unbiased Estimator), consisting of, there is no heteroscedasticity, no multicollinearity, and no autocorrelation. Furthermore, multiple linear regression tests were carried out with the results as shown in table 1 following.

**Table 1: Multiple Linear Test Results**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	7.527	2.854		2.637	.010
	Aqidah Motivation	1.190	.247	.430	4.814	.000
	Worship Motivation	.492	.184	.253	2.680	.009
	Muamalah Motivation	.503	.215	.230	2.333	.022

a. Dependent Variable: Religious Performance

Source: Primary data processed

Based on Table 1. above, it was found that the aqidah motivation variable has a significant positive effect on the religious performance variable, it can be seen from the significance of 0.000 below 0.05, so that hypothesis 1 is accepted. The results also show that the worship motivation variable has a positive and significant effect the religious performance variable. This is indicated by the significance value of 0.009 below 0.05, so that hypothesis 2 is accepted. The results also show that the muamalah motivation variable has a positive and significant effect the religious performance variable. This is



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indicated by the significance value of 0.022 below 0.05, so that hypothesis 3 is accepted. Furthermore, the ANOVA test results are presented in table 2 following.

**Table 2: ANOVA test results**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	805.553	3	268.518	25.622	.000 <sup>b</sup>
	Residual	785.992	75	10.480		
	Total	1591.544	78			

a. Dependent Variable: ReligiousPerformance

b. Predictors: (Constant), Muamalah Motivation, Aqidah Motivation, Worship Motivation

Source: Primary data processed

Based on Table 2 above, it was found that the simultaneous influence of the aqidah motivation, worship motivation, and muamalah motivation has a significant positive effect on the religious performance variable, seen from the significance of 0.000 below 0.05, so hypothesis 4 is accepted. The test results for the coefficient of determination are presented in table 4.3. following.

**Table 3: Result of the coefficient of determination**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.711 <sup>a</sup>	.506	.486	3.237

a. Predictors: (Constant), Muamalah Motivation, Aqidah Motivation, Worship Motivation

Source: Primary data processed

Based on table 3: above, the R Square value is 0.506, which means that the aqidah motivation, worship motivation, and muamalah motivation has an effect on the religious performance variable by 50.6%, while the remaining 49.4% is influenced by other variables outside of this study.

## 5. CONCLUSION

The results of the study concluded that the aqidah motivation, worship motivation, and muamalah motivation partially had a positive and significant effect on the religious performance on religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. The results also show that the aqidah motivation, worship motivation, and muamalah motivation simultaneously had a positive and significant effect on the religious performance on employees of the Sharia Business Unit at the Regional Development Bank in South Sumatra. This study is expected to be a reference for other researchers who want to the religious performance on employees of sharia banks.

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## SOCIAL MAPPING INDEKS DESA ZAKAT (IDZ) ON ZAKAT COMMUNITY DEVELOPMENT (ZCD) PROGRAM FOR OPTIMIZING ZAKAT EMPOWERMENT

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### Abstract

The research entitled Social Mapping Village Zakat Index (IDZ) Against the Community Development (ZCD) Zakat Program for Optimizing the Empowerment of Zakat Funds. The purpose of this research is to determine the priority of a village in Tanjung Jabung Timur district in receiving zakat funds through the Zakat Village Index. The method used is a quantitative method, interview interviews and focus group discussions using a questionnaire. The analytical tool used in this study is the Village Zakat Index (IDZ) with the calculation method of the multi-stage weighted index. Based on the use of purposive screening techniques in this study, the fulfillment is in accordance with the district and village levels. then there were 3 villages that were used as research samples, namely Pematang Rahim Village, Bukit Tempurung Village and Sungai Beras Village. The results showed that the village priority scale for receiving zakat funds in the Zakat Community Development program in the three villages used as the object of the study showed that Pematang Rahim with an IDZ value of 0.56, a shell hill of 0.50 and a River Beras village of 0.56 so that can be drawn the three villages can be said to be assisted.

**Keywords:** Poverty, Empowerment, BAZNAS, IDZ, ZCD.

### 1. INTRODUCTION

Islam pays special attention to the development of the socio-economic environment, especially in terms of poverty alleviation. Poverty is closely related to inequality in the distribution of income and wealth. Poverty in Islam is related to the concept of need (maqasidh syariah). There are five groups of basic human needs activities, namely: 1) religion; 2) physical health; 3) education; 4) descent, and 5) wealth. Fulfillment of needs is one of the basic objectives of Islam because it gives every individual and society the opportunity to have a good and decent life. Anything that helps achieve the goal of increasing welfare or living standards is called masalih (benefits), and vice versa is mafasid (useless). If there is one need that is not met, then it is still classified as poor (P3EI, 2014).

The unequal level of income also affects the level of poverty in a country. Indonesia as a developing country has various problems related to socio-economy, ranging from poverty, unemployment, welfare and income inequality. The problem of poverty is caused by a person's inability to fulfill his basic life needs. Based on data from the Central Bureau of Statistics, the number of poor people in Indonesia tends to decline, as can be seen in Table 1.1

**Table 1.1 Total Poor Population, Percentage of Poor Population, and Indonesian Gini Index 2012-2018**

Year	Number of Poor Population (Thousand People)	Percentage of Poor Population (%)	Gini index
2012	28.594	11.66	0.41
2013	28.553	11.47	0.41
2014	27.727	10.96	0.41
2015	28.513	11.13	0.41
2016	27.764	10.70	0.41
2017	26.582	10.12	0.39
2018	25.674	9.66	0.38

Source: BPS (2019)



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Jambi Province is a province with a population of 3,570,272 people (BPS, 2019). With the majority of the people are Muslims. Along with the increasing rate of population growth, Jambi Province does not see the economic problems, one of which is the population. Poverty is still a serious problem that the government must immediately do. The number of poor people in Jambi province in 2018 reached 281.69 people. As shown in Table 1.2.

**Table 1.2 Number and Percentage of Poor Population, P1, P2 and Poverty Line by Regency / City in 2019**

No	District / City	Number of Poor Population	Persentase Penduduk Miskin	P1	P2	Poverty Line
1	Kerinci	17	7,13	0,59	0,10	356.059
2	Merangin	32,88	8,48	1,39	0,38	406.466
3	Sarolangun	25,39	8,45	1,17	0,27	424.223
4	Batang Hari	26,53	9,75	1,29	0,25	420.227
5	Muaro Jambi	16,86	3,83	0,39	0,07	375.372
6	Tanjung Jabung Timur	25,35	11,54	1,75	0,47	374.735
7	Tanjung Jabung Barat	35,12	10,56	1,68	0,44	364.012
8	Tebo	22,83	6,47	1,07	0,26	404.473
9	Bungo	20,87	5,60	0,81	0,16	390.439
10	Kota Jambi	48,95	8,12	1,52	0,42	488.034
11	Kota Sungai Penuh	2,55	2,81	0,25	0,04	373.673
<b>Jambi</b>		<b>274,32</b>	<b>7,60</b>	<b>1,23</b>	<b>0,30</b>	<b>448.509</b>

Source: BPS (2018)

From the various poverty measures listed in table 1.2 above, at least we can see that from 3 poverty measures, namely based on the percentage of poverty, depth level (P1) and poverty severity level (P2), Tanjung Jabung Timur Regency ranks first. With the percentage of poor people at 11.54 percent. Then the P1 value shows the number 1.75 which is the average measure of the expenditure gap of each poor person against the poverty line. The higher the index value, the farther the average population expenditure is from the poverty line. The P2 value of 0.47 provides an illustration of the distribution of expenditure among the poor. The higher the index value, the higher the expenditure inequality among the poor. the severity of poverty in Tanjung Jabung Timur Regency is far from the poverty line. Meanwhile, the poverty line value shows a figure of 374,375. The poverty line value is the sum of the Food Poverty Line (GKM) and the Non-Food Poverty Line (GKNM). People who have an average expenditure per capita per month below the poverty line are categorized as poor

Several measures of poverty in Tanjung Jabung Timur district during the last three years are presented in table 3 below.

**Table 1.3 Number of poor people, percentage of poverty, poverty depth index (P1), poverty severity index (P2) and poverty line in Tanjung Jabung Timur Regency 2017-2019**

Year	District / City	Number of Poor Population	Persentase Penduduk Miskin	P1	P2
2017	27.22	12.58	2.98	1.05	338.963
2018	26.99	12.38	2.19	0.56	361.574
2019	25.35	11.54	1.75	0.47	

Source: BPS(2019)



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Judging from the data in Table 1.3, Tanjung Jabung Timur Regency has a fluctuating Poverty Line value and the number of poor people, although during the last three years it has shown improvement, but when compared to districts / cities in Jambi Province, Tanjung Jabung Timur Regency is still the highest. For this reason, the district of Tanjung Jabung Timur needs attention from the government in order to alleviate poverty.

As an effort to alleviate poverty, BAZNAS as the manager of national zakat has empowerment and poverty alleviation programs through zakat funds. Before implementing the program, BAZNAS first looks at the orientation of a region in Indonesia which includes all provinces including Jambi Province, based on the BAZNAS Welfare Index (IKB) by analyzing and measuring the impact of zakat on mustahik. As shown in Table 1.4 as follows:

**Table 1.4 IKB Value and Compiler Index Jambi Province**

<b>CIBEST Welfare Index</b>		<b>2017</b>	<b>2018</b>
		<b>0,75</b>	<b>1</b>
Quadrant”	Quadran –I	76,00%	94,44%
	Quadran –II	4,00%	4,17%
	Quadran –III	20,00%	1,39%
	Quadran –IV	0,00%	0%
<b>IPM Modification Index</b>		<b>0,75</b>	<b>0,75</b>
Compiler Index	Health Index,	0,76	0,54
	Education Index	0,59	0,75
<b>Independence Index</b>		<b>0,75</b>	<b>0,75</b>
Variabel”	Routine Income	100,00%	98,61%
	Non-Routine Income	25,00%	19,44%
	Leased Asset Income	4,17%	2,78%
	Savings	58,33%	23,61%
<b>BAZNAS WELFARE INDEX</b>		<b>0,75</b>	<b>0,75</b>

Source: BAZNAS (2018)

Judging from the measurement results, the IKB value obtained by Jambi Province in 2018 was 0.8 (good) or the same as the previous year. The value of each IKB constituent index also did not change from 2017. Of the three IKB compiler index values, the independence index had the lowest value. Therefore, zakat institutions can make increasing independence as one of the program priorities for mustahik in Jambi Province. A high level of independence will help the mustahik to improve and maintain their welfare.

In the implementation of the Zakat Community Development (ZCD) program, there is a measuring instrument, namely the Zakat Village Index (IDZ). This measuring instrument is a mechanism used to measure (assessment) the condition of a village so that it can be said to be feasible or not worthy of being assisted by zakat funds. The Zakat Village Index can also be used as a monitoring and evaluation tool for the zakat management process in a village. The Zakat Village Index is prepared based on the Process-Oriented principle which is used by zakat management organizations to see the development of their programs in an ongoing process. Therefore, this index can include the right dimensions and variables to measure village development comprehensively (BAZNAS, 2017).

Based on the explanation above, Tanjung Jabung Timur as a district that has the highest percentage of poverty, poverty severity index and poverty depth index, consists of 11 sub-districts, 20 urban villages and 73 villages. Of the 73 villages that become the population, one or several villages will be selected after going through several stages of selection tailored to the right characteristics.

## 2. LITERATURE REVIEW

### Poverty

According to Suharto (2013) there are at least four causes of poverty. First, the individual factor, where a person becomes poor due to personal factors, permanently disabled which causes him to be



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poor. Second, social factors, where poverty occurs due to social discrimination. Third, cultural factors, where someone becomes poor because of their bad behavior, such as being lazy to work and try. Fourth, structural factors, where poverty occurs due to the injustice of the economic system.

The importance of the function and role of the Government as an initial step in controlling an activity related to the running of a government in the social, political, cultural and economic fields. Stabilization function, namely the function of the government in creating economic, socio-political, legal, defense and security stability. Allocation Function, namely the function of the government as a provider of public goods and services such as the construction of roads, school buildings, provision of lighting facilities and means of communication. Distribution Function, namely the function of the government in equitable distribution or distribution of community income so that gaps do not occur.

### **Zakat**

According to the Ministry of Religion of the Republic of Indonesia (2013) conceptually, zakat has dimensions of poverty alleviation and reduction as well as realizing social welfare. There are several strong reasons why zakat is believed to be an instrument and pillar of Islam which is able to prosper the community. First, the use and allocation of zakat has been regulated in a Syar'i manner where the recipients (mustahik) only consist of eight groups (ashnaf) by giving more priority to the impoverished and poor community groups). This means that other groups outside of these eight groups are not entitled to zakat, so it makes sense that zakat is a pillar for poverty alleviation.

Second, the collection and collection of zakat is taken and obtained from various sources and economic activities of the community such as agriculture, trade, gold, silver, money, found assets, valuable objects from the bowels of the earth. Even in the present context, zakat can also be taken from financial assets and the results of certain expertise. In short, zakat has enormous potential in contributing to alleviating poverty.

Third, zakat is a spiritual tax that every Muslim pays continuously so that it will be a guarantee for the stable receipt of zakat funds. Thus, the stable condition of zakat acceptance will also ensure the durability and sustainability of poverty alleviation programs. In another sense, the source of financing for poverty alleviation programs from zakat will never run out because Muslims will always pay zakat.

distribution of community income so that it does not occur.

### **Recipients of Zakat**

The Al-Quran verse in surah At-Taubah explains that there are eight groups of people mentioned who are entitled to receive zakat in the word of Allah SWT:

This means: "actually zakat is only for the needy, the poor, amil zakat, whose heart has softened (converts). To (liberate) my slave, to (free) those who are in debt, for the way of Allah, and for those who are on their way, as an obligation from Allah. Allah knows best, is most wise." (Surah At-Taubah: 60)

### **Zakat Fund Utilization by OPZ**

The utilization of zakat funds is used to improve the welfare of the people through empowerment. Mintarti (2011) in his study explains that zakat-based community empowerment is a process shown to create social and economic progress for the poor themselves. The objectives of the community empowerment program are:

1. Achieve material independence of the target community, namely the achievement of productive abilities to meet basic needs of life (basic needs). As well as reserves and mechanisms to survive critical conditions.
2. Achieving intellectual independence of the target community, namely the formation of independent thinking, attitude and critical awareness.



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3. Achieved independence of target community management, namely the ability of the community to manage collective action to create sustainable local institutions, so as to be able to form equal partnerships across stakeholders.

### **Optimizing Zakat Fund Empowerment**

Optimizing the empowerment of zakat funds can be in the form of efforts to strengthen policies or programs organized by BAZNAS in the context of empowering the people and alleviating poverty. In the right optimization step, a form of performance evaluation is needed in a management institution. By examining what problems are currently and will be faced during the implementation process.

According to Nurzaman (2011) in the publication of the Ministry of Religion of the Republic of Indonesia, the problems faced in zakat empowerment consist of two, namely First, related to the implications of zakat-based empowerment programs for improving the welfare of the poor. Second, related to efforts to measure the level of community welfare through internationally recognized measures and measures. In this case the authorized institution is expected to maximize the existing resources in religion as a basis for empowering the people.

### **Zakat Community Development**

Zakat Community Development (ZCD) is a BAZNAS empowerment program through communities and villages by integrating aspects of dakwah, economy, education, health, and humanity comprehensively, the sources of which are zakat, donations, alms and other socio-religious funds (Baznas, 2017). The ZCD program has six principles that must be present in the concepts and stages of program implementation and are embedded in program managers and participants (Herdayanti, 2018). The six principles of ZCD include community-based, Islamic shari'ah, participation, benefit, sustainability and synergy.

The main objective of the ZCD Program is "The realization of a Prosperous and Independent Society". The specific objectives of the ZCD Program are:

1. To raise awareness and concern for the mustahik / beneficiaries about a quality life
2. Foster participation towards community independence
3. Growing social and economic networks
4. Creating sustainable empowerment programs in realizing welfare and community independence.

According to Sumantri (2017), there are three models for implementing community development. First, development for community, namely empowerment placing the community as the object of development because the initiative, planning and implementation of development activities are carried out by external actors. Second, development with community, which is marked by strong collaboration between external actors and local communities. Decisions taken are joint decisions and the resources used come from both parties. Third, the development of community is seen as the best model, where the empowerment process from the initiative, planning, to implementation is carried out by the community and the community becomes the owner of the program.

### **Zakat Village Index**

The Village Index is an implementation of Law No. 23 of 2011 on Zakat management, so that the objectives of national zakat management can be achieved. The Zakat Village Index as a measuring tool for assessing a village issued by the BAZNAS Strategic Studies Center in 2017.

The Zakat Village Index or abbreviated as IDZ is a tool used to measure the condition of a village so that it can be said to be feasible or not worthy of being assisted by zakat funds. Therefore this Zakat Village Index can also be used as a monitoring and evaluation tool for the zakat management process in the village. The Village Index is prepared based on process-oriented principles that can be used by zakat management organizations to see the progress of their programs in the ongoing process. The matter of compiling the Village Index is expected to be a reference for zakat management



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organizations that will or implement certain village or community-based empowerment programs to make them more measurable and integral in their management.

### **Village Zakat Index Compiler Components**

The components that make up IDZ consist of 5 dimensions, namely Economy, Health, Education, Social and Humanity, and Da'wah. From each dimension it is further reduced to 15 variables and 39 indicators with the weight of their contribution. In general, the components of the village index components consist of (Baznas, 2017):

1. Economic Dimensions with Variables: Productive Economic Activities, Village Trade Centers, Access to transportation and services, Logistics / shipping, Access to Financial Institutions
2. Health Dimensions with Variables: Health services, health insurance.
3. Educational Dimensions with Variables: Education and literacy levels, Educational Facilities
4. Social and Humanitarian Dimensions with variables: Facilities for open community interaction, electricity infrastructure, communication and information, Natural Disaster Mitigation
5. Dimensions of Da'wah with variables: Availability of Religious Facilities & Companions, Level of Community Religion Knowledge, Level of Diversity Activity and Community Participation

### **3. RESEARCH METHODOLOGY**

Metode yang digunakan dalam penelitian ini adalah metode penelitian kuantitatif. Metode observasi atau pengukuran data penelitiannya kuantitatif berwujud angka-angka sebagai hasil observasi atau pengukuran (Widoyoko, 2012).

#### **Types and Sources of Data**

The types of data used in this study are primary data and secondary data, available as follows:

1. Primary data, obtained from interviews, questionnaires and Focus Group Discussion (FGD) using a questionnaire. FGDs were conducted by several resource persons from different backgrounds, namely the government, community organizations, and zakat institutions. This is done to measure the dimensions, indicators and variables contained in the calculation of the Village Zakat Index (IDZ). The data used to see the condition of the village is based on five existing dimensions, namely the dimensions of economy, health, education, humanity and da'wah.
2. Secondary data, obtained from several institutions that support this research, such as databases and administration, BPS, journals, books, theses and the internet. This is used to compile the Village Zakat Index component.

#### **Population and Sample**

Population is a generalization area consisting of objects / subjects that have certain qualities and characteristics that are determined by researchers to study and then draw conclusions (Sugiyono, 2016). The population in this study were 73 villages in Tanjung Jabung Timur Regency.

The sample is part of the number and characteristics of the population (Sugiyono, 2016). The method used in sampling in this study is a non-probability sampling method with purposive sampling technique where sampling is determined by determining the characteristics or special characteristics that are in accordance with the research objectives, so that it is expected to be able to answer the research problem.

The characteristics taken to determine the research sample refer to the components of the village zakat index which consists of indicators and variables in each dimension of the village zakat index. These dimensions include:

1. Economic Dimensions
2. Health Dimensions
3. Dimensions of Education
4. Social and Humanitarian Dimensions
5. Dimensions of Da'wah



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The selected sample is the sample that meets the five predetermined characteristics at most, both at the sub-district level and at the village level. By determining the characteristics above, it is expected to be able to determine the right sample for the object of calculating the Zakat Village Index.

Based on the use of purposive screening techniques in this study, the fulfillment of characteristics at the sub-district and village levels. then there are 3 villages used as research samples, namely Pematang Rahim Village, Bukit Tempurung Village and Sungai Beras Village. Each of these villages will be measured the value of its Village Zakat Index to determine whether the village is prioritized in receiving zakat funds according to ZCD.

### Method of collecting data

The data collection method in this study uses primary data with the case study method through structured interviews with informants and FGD using questionnaires. Sampling using purposive sampling method, which is selecting samples based on the fulfillment of certain criteria / characteristics which aim for filtering, purposive sampling is known as judgment sampling (Cooper and Pamela, 2006). The characteristics taken are adjusted to the measurement of the Zakat Village Index based on five dimensions, namely the dimensions of economy, health, education, social and humanity and da'wah. Meanwhile, data collection techniques on secondary data were taken based on available databases such as in BAZNAS and BPS.

### Data Analysis and Processing Methods

The data analysis method used in this study used an approach, namely the quantitative analysis approach. The quantitative analysis approach uses a calculation estimation technique called the Multi-stage Weigh Index used to display data in the form of IDZ calculation results. Quantitative data collection methods are used to calculate the value of the zakat index components, namely indicators, variables, and dimensions as the calculation process must be carried out in stages to collect fact data, it is also necessary to obtain results from literature studies as well as interviews, FGDs and questionnaires obtained from informants.

### The stages of calculating the Zakat Village Index

The calculation procedure and formula are as follows:

- a. Each indicator has an assessment criterion or what is called a Likert scale which consists of five assessment criteria, so that the calculation results start from the smallest number one to the maximum five (the Likert scale is attached). The higher the value, the less the village is considered to be prioritized for assistance and vice versa the lower the value, the village is considered more feasible or highly prioritized for assistance. Then after the actual figures are obtained (based on facts, findings and data obtained which have been adjusted to the Likert scale criteria), the indicators are calculated using the following calculation method:

$$\text{Indicator}_x = \frac{(\text{Score } x - \text{Score min})}{(\text{Score max} - \text{Score min})} \quad (3)$$

Where,

Indicator x = Indicator value x

Score x = Score on indicator x

Min score = 1 (smallest value)

Max score = 5 (greatest value)

- b. After the value of each indicator is obtained, it is then multiplied by the weight of each indicator to get the indicator index.
- c. Then the indicator index is grouped according to the variable and multiplied by the weight of each variable to get the variable index.



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- d. The index of each variable is multiplied by the weight on each dimension to obtain the dimension index. The result is a composite index known as the Zakat Village Index. The formula is as follows:

$$IDZ = (X1ek + X2ks + X3pe + X4ke + X5da) \quad (4)$$

IDZ = Indeks Desa Zakat  
 X1... .X5 = weighted assessment  
 ek = Economic dimension  
 ks = Dimension of health  
 pe = Dimension of education  
 ke = Human dimension  
 da = Dimensions of Da'wah

The IDZ value is between 0 and 1. The results of the IDZ will be divided into 5 categories or Score Range as described as follows:

**Table 1.5 Score Range IDZ**

Score Range	Keterangan	Interpretasi
0,00 - 0,20	Tidak baik	Sangat diprioritaskan untuk dibantu
0,21 - 0,40	Kurang baik	Diprioritaskan untuk dibantu
0,41 - 0,60	Cukup baik	Dapat dipertimbangkan untuk dibantu
0,61 - 0,80	Baik	Kurang diprioritaskan untuk dibantu
0,81 - 1,00	Sangat baik	Tidak diprioritaskan untuk dibantu

Source: BAZNAS (2017)

The more the IDZ score approaches 1, the less priority the village is for assistance. On the other hand, the more IDZ approaches 0, the more priority the village is for assistance.

### 4. RESULTS AND DISCUSSIONS

#### A. IDZ Calculation Results for Pematang Rahim Village

The results of the calculation of the IDZ value of the village of pematang rahim were 0.56. This shows that the condition of the village is in quite good condition, so based on the value of the calculation, the index can be considered for assistance with zakat funds through the ZCD program. The formula used is the fourth stage as follows:

$$IDZ = (X1ek + X2ks + X3pe + X4ke + X5da)$$

$$IDZ = 0,25X1 + 0,16 X2 + 0,20X3 + 0,17X4 + 0,22X5$$

$$IDZ = 0,25 (0,50) + 0,16 (0,48) + 0,20(0,57) + 0,17(0,57) + 0,22(0,74)$$

$$IDZ = 0,56$$

**Table 1.6. Hasil Perhitungan IDZ Desa Pematang Rahim**

ZAKAT VILLAGE INDEX				
Dimension	Dimension Weight	Dimension Index Value	Dimension Weight x	IDZ Value
Economy	0,25	0,50	0,12	0,56
Health	0,16	0,48	0,08	
Education	0,20	0,57	0,11	
Social and Humanity	0,17	0,57	0,09	
Da'wah	0,22	0,74	0,16	

Source : Data primer dan Sekunder ( 2019 )

Based on Table 1.6, the economic and health dimensions have the lowest index values of 0.5 and 0.48 when compared to the other indices, but these values indicate that the economic and health conditions in the village are still quite good. Meanwhile, the other three dimensions, namely the dimensions of education, social and humanitarianism, and da'wah had higher index values of 0.57, 0.57 and 0.74.



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In the economic dimension, it is quite good with a value of 0.50. From several indicators of economic dimensions in Pematang Rahim village, namely productive economic activities, village trade centers, access to transportation and logistics services and access to financial institutions, productive economic activities are the main problems faced by Pematang Rahim village where there are still few processed products produced by the community.

The health dimension consists of three variables, namely (1) public health, (2) health services and (3) health insurance. the health dimension index value obtained is 0.48. This value indicates that the health condition of the village community is quite good.

In general, the majority of residents' houses are livable and some have access to clean water as a means of cooking, washing and drinking. Health services in villages tend to be adequate due to the easy access of the community to health service places. Meanwhile, for the lowest health service variable in the health dimension.

For the education dimension, which consists of two measured variables, namely the level of education and literacy and educational facilities. In general, the condition of community education can be said to be quite good, supported by the existence of adequate educational facilities in this village. However, the indicators of the level of community education are still classified as poor, this is because less than 20% of the population is currently studying college and less than 20% have completed education and only 25% are high school graduates

In the social and human dimensions there are three variables measured, namely (1) means of open community interaction, (2) electricity infrastructure, communication and information, and (3) natural disaster mitigation. Among the 3 variables, the natural disaster mitigation variable is still the main obstacle in Pematang Rahim village. Natural disaster mitigation is only available 1 in the village in the form of the Peat Restoration Agency because some land types in the village are majority peat.

Furthermore, the da'wah dimension shows that the variable of the availability of religious facilities and companions has an index value of 0.74. This means that the facilities and religious companions are adequate. The index value of the variable level of community religious knowledge in Pematang Rahim village is classified as good.

### B. Result of IDZ Calculation for Bukit Tempurung Village

Based on the calculation of the IDZ value of the village of Bukit Tempurung, the IDZ value is 0.50. This shows that the condition of the village is in quite good condition, so based on the value of the calculation, the index can be considered for assistance with zakat funds through the ZCD program. The formula used is the fourth stage as follows:

$$\begin{aligned} \text{IDZ} &= (X1ek + X2ks + X3pe + X4ke + X5da) \\ \text{IDZ} &= 0,25X1 + 0,16 X2 + 0,20X3 + 0,17X4 + 0,22X5 \\ \text{IDZ} &= 0,25 (0,34) + 0,16 (0,53) + 0,20(0,48) + 0,17(0,53) + 0,22(0,74) \\ \text{IDZ} &= 0,50 \end{aligned}$$

**Table 3.2. Hasil Perhitungan IDZ Desa Bukit Tempurung**

ZAKAT VILLAGE INDEX				
Dimension	Dimension Weight	Dimension Index Value	Dimension Weight x	IDZ Value
Economy	0,25	0,34	0,08	0,50
Health	0,16	0,43	0,06	
Education	0,20	0,48	0,09	
Social and Humanity	0,17	0,53	0,09	
Da'wah	0,22	0,74	0,16	



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Based on Table 3.2. It can be explained that in Bukit Tempurung village, out of the 5 dimensions of the IDZ calculation, the economic dimension has the lowest index value of 0.34, then the health dimension has a value of 0.43 when compared with. For the education dimension, it has an index value of 0.48, of the 5 dimensions the dakwah dimension is the dimension with the highest index value, which is 0.74, followed by the Social and Humanity dimensions which have an index value of 0.53. From the results of the overall calculation, the IDZ value of Bukir Empurung village is 0.48. This indicates that the three IDZ values of Bukit Tempurung Village are in quite good condition. This means that it can be considered for assistance

In the economic dimension, it is not good enough with a value of 0.34. In the variable, the village trade center has constraints in the economic dimension, for the processed industrial products, the village of Bukit Tempurung has several preparations such as banana chips, banana dodol, making bags from banana stem skin, but due to the unavailability of trade centers such as traditional markets, it makes it difficult for people to market their products so they can In conclusion, the economic dimension of the village of Bukit Tempurung can be prioritized for assistance.

For the health dimension which consists of three variables, namely (1) public health, (2) health services and (3) health insurance. the health dimension index value obtained is 0.43. This value indicates that the health condition of the village community is quite good. The village of Bukit Tempurung has a supporting puskesmas. However, the lowest health service variable in the health dimension is due to the lack of health personnel in the village such as a midwife and a doctor, there is only 1 doctor.

In general, the condition of public education can be said to be quite good. However, the variable level of education shows that public awareness in taking education is not good enough. Based on data sourced from the village office there are less than 20% who have education 12 years and over. However, related to literacy, it shows that the average villager aged 15-45 years can read and count,

In the social and humane dimensions in the village of Bukit Tempurung, the variable availability of sports facilities shows that there are no sports facilities in the village to support socializing activities in the surrounding community, this makes this variable has the lowest value of the 3 social and humane dimension variables, which is measured, namely (1) Facilities for open public interaction, (2) electricity, communication and information infrastructure, and (3) natural disaster mitigation. Meanwhile, the dakwah dimension shows the IDZ calculation results of 0.74. This means it is included in the good category. In the village of Bukit Tempurung, based on the data obtained, the availability of mosques in this village is adequate. Based on the results of interviews with religious leaders, it is known that there are 1 mosque and 4 prayer rooms scattered in the area. The condition of the mosque in the local community is considered suitable. Meanwhile, the value of access to the mosque is good

### C. Result of IDZ Calculation for Sungai Beras Village

The IDZ value is obtained by multiplying the index for each dimension by the respective weight contribution, then adding it up. Based on the measurement results, the IDZ value was 0.53. This shows that the condition of the village is in quite good condition, so based on the value of the calculation, the index can be considered for assistance with zakat funds through the ZCD program. The formula used is the fourth stage as follows:

$$IDZ = (X1ek + X2ks + X3pe + X4ke + X5da)$$

$$IDZ = 0,25X1 + 0,16 X2 + 0,20X3 + 0,17X4 + 0,22X5$$

$$IDZ = 0,25 (0,42) + 0,16 (0,50) + 0,20(0,48) + 0,17(0,78) + 0,22(0,65)$$

$$IDZ = 0,56$$



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**Table 3.3. Result of IDZ Calculation for Sungai Beras Village**

ZAKAT VILLAGE INDEX				
Dimension	Dimension Weight	Dimension Index Value	Dimension Weight x	IDZ Value
Economy	0,25	0,42	0,1	0,56
Health	0,16	0,50	0,08	
Education	0,20	0,50	0,1	
Social and Humanity	0,17	0,65	0,11	
Da'wah	0,22	0,78	0,17	

Based on the table above, the economic dimension still has the lowest index value of 0.42 compared to the other indices, the same as the 2 previous villages this value indicates that the economic condition is quite good. And can be considered for help. For other dimensions, namely the dimensions of health, education, social and humanitarianism, and preaching had higher index values, namely 0.5, 0.48, 0.65 and 0.78, respectively. From the above calculations, the Sungai Nasi Village can be considered for assistance

In the economic dimension based on the results of the lowest IDZ calculation from other dimensions, this is because in the village of Sungai Rice there are 3-4 superior products produced in the village, namely bananas and cassava which are processed into various kinds of processing but these products can only be marketed in local market only, so that the number of superior products is still low due to harvest intensity constraints, which are sometimes faced by residents. The unemployment rate is relatively moderate because around 40-59% of the population is actively working, both as farmers and laborers. Meanwhile, the active community for the reative industry is still low because there is no community that activists in the processed industry such as snacks.

Furthermore, for the health dimension, in general, the majority of residents' housing conditions in Sungai Nasi Village are categorized as habitable. However, the source of clean water for drinking and washing needs by some residents has not been fulfilled. Health services in the village tend to be adequate due to the easy access of the community to health service places where there are 2 units of supporting puskesmas located in Sungai Beras village.

In the education dimension, Sungai Beras Village has complete educational facilities and infrastructure when compared to the surrounding villages. The education sector from elementary school to SMS equivalent level exists in this village. Based on BPS data and Village Monographs, the list of educational facilities and infrastructure in Sungai Beras Village is 2 PAUD, 2 SD, 2 Madrasah ibtidayah, 1 MTS, 1 Madrasah Aliyah, however it is not in line with the education level of the community. in Sungai Beras village, based on data, there are 1378 people out of a total of 3425 people or 40.2% do not / have not yet graduated from SD / MI. Of the 3425 inhabitants of Sungai Beras Village, only 28 people are able to complete higher education / equivalent or from 84 high school / equivalent graduates, only 28 people can continue and complete higher / advanced education, less than 40% of the total SMA / equivalent graduates.

### 5. CONCLUSION

The village priority scale for receiving zakat funds in the Community Development Zakat program is determined by calculating the Village Zakat Index adjusted to the Score Range. The more the IDZ value approaches 1, the less the village is prioritized. On the other hand, the closer the IDZ is to 0, the more priority the village is for assistance. The results of the calculation of the Zakat Village Index in the three villages that were used as research objects showed that Pematang Rahim with an IDZ value of 0.56, a shell hill of 0.48 and a River Beras village of 0.56 so that it can be concluded that the three villages can be considered for assistance.



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### LIMITATION AND STUDY FORWARD

Based on the researcher's experience in a limited process and can be several factors that can be more alert for researchers who will come in further research because this research itself certainly has deficiencies that need to continue to develop in future studies. Some of the limitations of this study include:

1. Dimensions of zakat village index measurement are only limited to 5, namely economy, education, health, social, indictment, to investigate further it is hoped that additional dimensions may also affect many things in this study.
2. Improvements are needed regarding the indicators composing the Village Zakat Index component to provide more information and maximum village potential, considering that IDZ is an analytical tool issued by the BAZNAS Puskas.
3. For further research, it is hoped that the research can calculate the Village Zakat Index in villages that have not been reached by the researcher.

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## DOES FINANCIAL DISTRESS HAS AN EFFECTS ON AUDIT REPORT LAG?

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### Abstract

This study aims to examine the effect of financial distress on audit report lag and how the size of CPA Firm moderate the relationship between financial distress and audit report lag. This study was conducted at manufacturing companies listed on the Indonesia Stock Exchange in 2017-2019. The number of samples taken was 106 companies so that there were 318 observations, with a purposive sampling method. The variable financial distress is measured by the Altman Z Score proxy, which is the best model for measuring the state of financial distress being experienced by the company. The size of CPA Firm is measured by dummy variables, given a value of 1 if it is a Big Four CPA Firm and 0 if it is not a Big Four CPA Firm. This study use multiple linear regression to analyze the data. Based on the results of the analysis found that financial distress has negatively affected on audit report lag. It means that the smaller the Z Score of a company (which means the company is experiencing financial distress), the longer the financial statement audit process will be. This negative relationship between financial distress is strengthened by the size of CPA Firm.

*Keywords: Financial distress, audit firm size, audit report lag*

### 1. INTRODUCTION

An audit of financial statements is needed to convince investors and other parties about the fairness of the financial information submitted by management. Based on the regulation of the Financial Services Authority (OJK) Number 29 / POJK.04 / 2016, it is mandatory for all issuers and public companies listed on the Indonesia Stock Exchange to submit annual financial reports to OJK no later than the end of the fourth month after the financial year ends. Companies that are late in submitting financial reports will be subject to administrative sanctions such as: written warnings, fines, restrictions business activities, freezing of business activities, revocation of business licenses, cancellation of approval and cancellation of registration (Otoritas Jasa Keuangan, 2016b).

Companies that are late in submitting financial reports will be subject to administrative sanctions such as: written warnings, fines, restrictions on business activities, freezing of business activities, revocation of business licenses, cancellation of approval and cancellation of registration (Otoritas Jasa Keuangan, 2016). The timeliness of the preparation of financial statements affects the value of these financial statements. Various obstacles are experienced by companies in presenting financial statements in a timely manner. The requirement for financial statements to be audited by auditors to provide an opinion on the fairness of a financial report is one of the obstacles that a company experiences. The emergence of a long audit delay is caused by the desire of the company to try to improve its financial statements in order to produce a report that has high quality.

Long audit delays may can occur because the process of improving a financial report takes a long time. Auditors need more time to carry out the audit process due to the losses the company has suffered. This loss is one of the factors that affect the occurrence of audit delay (Carslaw & Kaplan, 1991). Audit delay is the length of time for audit completion which is measured from the closing date of the financial year to the date that fieldwork is completed by an independent auditor (Hersugondo & Kartika, 2013). The longer the auditor completes the audit work, the longer the audit delay (Dewi & Jusia, 2013).



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The timeliness of a company in publishing financial reports to the general public depends on the timeliness of an auditor in completing his audit work. (Halim, 2000) states that the timeliness of the presentation of financial reports and audit reports is the main prerequisite for an increase in the company's share price. Phenomena regarding the delay in the publication of audited financial reports include: in 2015, 18 companies were late in reporting audited financial statements of 2015 and / had not paid a fine in 2016 17 companies were subject to stock suspension by the IDX for being late in reporting the audited financial statements of 2016 (Liputan6.com, 2017), in 2017 there were 10 stock suspension companies by the IDX due to late reporting of the 2017 audited financial reports (Indopremier.com, 2018).

Research by Vuko & Cular (2014) and Sakka & Jarboui (2016) shows that debt to total assets is a proxy for positive financial distress to audit delay. The results of research by Praptika & Rasmini (2016) and Kusuma (2018) show that financial distress has a positive effect on audit delay. Research by Akhalumeh et al. (2017) revealed that debt to total assets has no effect on audit delay. research because mining sector companies often experience delays in publishing financial reports even resulting in suspension of stock trading by the IDX. Delays in submitting annual financial reports may result because the financial statements are still being audited by the company's independent auditors.

Financial distress is a stage of decline in the company's financial condition and if this is allowed to drag on, it will cause the company to go bankrupt Praptika & Rasmini (2016). Diratama's research (2018) shows that the prediction of bankruptcy experienced by the mining sector in 2014 was 62.5%, in 2015 it was 60% and in 2016 it was 57.5%. This research shows that for three consecutive years the mining sector has a percentage of bankruptcy predictions above 50%. Research by Vuko & Cular (2014) and Sakka & Jarboui (2016) shows that debt to total assets is a proxy for positive financial distress on audit delay. The results of research by Praptika & Rasmini (2016) and Kusuma (2018) show that financial distress has a positive effect on audit delay. Research by Akhalumeh et al. (2017) revealed that debt to total assets has no effect on audit delay.

Kadir (2008) shows that companies experiencing financial distress tend not to be on time in submitting financial reports compared to companies that do not experience financial difficulties. This also supports Praptika & Rasmini's (2016) research which examines the effect of financial distress and auditor switching on audit delay. This study explains that financial distress, which is proxied by a debt to asset ratio (DAR), has a positive effect on audit delay. The higher the value of the financial distress ratio, the company is considered to be experiencing difficulties. This study also proves that auditor turnover has a positive effect on audit delay. The new auditor will take a long time to get to know the characteristics of his client.

The inconsistent results of previous studies made researchers want to re-examine the effect of bankruptcy predictions and auditor opinion on audit delay. Previous studies that examined the relationship between financial distress and audit report lag, used a proxy Debt to Asset Ratio or Debt to Equity Ratio to measure financial distress in a company. There is no research that uses the Altman Z Score proxy to measure the financial distress of a company. Altman Z Score is the best model for measuring proxy financial distress or predicting the bankruptcy of a company. Therefore, this study uses the Altman Z Score proxy to measure the financial distress variable. The smaller the Z Score value of a company, it means that the company is in a condition of financial distress. Another thing that is the background of this research is the inconsistency of the results regarding the effect of CPA firm size on the audit report lag (Murti & Widhiyani, 2016). This study uses the CPA firm size as a moderating variable, to see whether the CPA firm size can weaken or strengthen the relationship between financial distress and audit report lag.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Agency Theory

Agency theory explains the relationship between the company manager and the principal (shareholder) as the binding owner. The management of the company is responsible for providing information to



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shareholders through the presentation of financial statements that have been audited by an independent auditor. Jensen & Meckling (1976) explain that agency theory is needed as a form of work contract to regulate the rights and obligations of both parties. The imbalance in the distribution of information received by agents and principals causes information asymmetry that can lead to agency problems (Rustiarini & Sugiarti, 2013).

In this study, the form of corporate responsibility to stakeholders is shown through information on financial statements reported to the OJK which of course has been audited by a public accountant to ensure the accountability and credibility of these financial statements. Financial statement information will be useful if it is presented accurately and in a timely manner. Delays in submitting financial statements will affect decisions in investing. Stakeholders need these financial reports to help determine whether to buy, hold or sell these investments and also need information regarding the company's ability to pay dividends.

### Signaling Theory

Signaling theory assumes that there is information asymmetry between managers and investors or potential investors. Managers are seen as having information about the company that neither investors nor potential investors have. Signaling theory explains the reasons why companies present information to the public (Morris, 1987). This information can be in the form of financial reports, company policy information or other information that is voluntarily disclosed by company management. Signaling Theory is used as a reference in this study because circulating signals and information can influence the actions taken by investors, especially on the movement of the composite stock price index.

Signaling theory states that companies with good quality will deliberately give signals to the market, thus the market is expected to differentiate between good and bad quality companies (Hartono, 2015). In order for the signal to be good, it must be captured by the market and perceived as good and not easily imitated by companies with poor quality. Thus, the longer the period of the financial report audit causes the stock price movement to be unstable, so investors interpret it as an audit delay because the company does not immediately publish the financial report, which then has an impact on the decline in the company's stock price.

### Financial Distress

Financial distress is a condition or situation in which a company experiences financial difficulties in paying its obligations, so that it will be threatened with bankruptcy (Yanti & Badera, 2018). Financial distress starts when a company cannot meet its payment schedule or when cash flow projections indicate that the company will soon fail to meet its obligations. Every company must be aware of the potential for bankruptcy, therefore the company must conduct an analysis as early as possible regarding the company's bankruptcy. The benefit of doing a bankruptcy analysis for the company is to be able to anticipate and avoid or reduce the risk of bankruptcy.

Altman tries to combine several financial ratios into a predictive model with statistical techniques, namely discriminant analysis that can be used to predict company bankruptcy from his research, Altman uses five financial ratios intended for go public companies, namely Working Capital to Total Assets, Retained Earnings to Total Assets, EBIT to Total Assets, Market Value of Equity to Total Liabilities, and Sales to Total Assets. From the calculation results will be obtained a Z value (Z-Score) which can describe the company's financial position is in a healthy, vulnerable or bankrupt condition.

### Audit Report Lag

Puspitasari & Sari (2012) states that the audit report lag is an audit time gap, which is the time required by the auditor to produce an audit report on the performance of a company's financial statements. The shorter the time period between the end date of the fiscal year and the date of ending the publication of the financial statements, the greater the benefits that will be obtained by users of financial statements. Conversely, delays in publishing financial reports will lead to uncertainty in making decisions based on the information contained in financial reports Damanik, Hardi, & Ilham (2018). The time difference



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between the date of financial reporting and the date of the audit opinion in the financial statements indicates the length of time for the completion of the auditors, this condition is called an audit report lag.

## **The Effect of Financial Distress on Audit Report Lag**

Financial distress is a condition in which the company's finances are in an unhealthy state or crisis and occur before bankruptcy. The financial difficulties were seen as bad news for the company. Avoiding poor quality financial reports, companies often try to improve them. This improvement effort takes time so that it will increase the company's audit delay.

Kadir (2008) show that companies experiencing financial distress tend not to be on time in submitting financial statements compared to companies that do not experience financial difficulties. Likewise, research conducted by (Dogan, et al. 2007) in Merdekawati and Arsjah (2011) companies that have bad news for investors and shareholders tend to delay their reporting to reduce bad market reactions from bad news. The results of Praptika & Rasmini's (2016) research show that financial distress that measured by debt to asset ratio has a positive effect on audit delay. Which means that the greater the DER ratio value, the longer the audit reporting time for the financial statements will be. This study uses the Altman Z Score proxy to measure the company's financial condition. By using the Z Score, it is stated that the smaller the Z Score of a company, it can be said that the company is in a condition of financial distress. From this description, the hypothesis is formulated as follows:

H1: Financial distress has a negative effect on audit report lag

## **The Effect of Financial Distress on Audit Delay Moderated by Public Accountant Firm's size**

DeAngelo (1981) argues that large KAPs are believed to have better audit quality than small KAPs. This is presumably because large KAPs, known in Indonesia as Big Four KAPs, have better human resources, experience and systems than small KAPs. Large KAP will find it easier to overcome audit risk and find the necessary evidence so that even if the company is threatened with bankruptcy, the audit process will not take too long. Companies that are predicted to go bankrupt will spend a long audit time. Based on DeAngelo's (1981) theory, it can be hypothesized that KAP's reputation is able to moderate the effect of bankruptcy predictions on audit delay.

H2: The KAP measure strengthens the negative relationship between financial distress and audit report

## **3. RESEARCH METHODOLOGY**

### **Population and Sample**

The population of this study are publicly traded manufacturing companies listed on the Indonesia Stock Exchange during the 2017-2019 period. The sample in this study was taken using purposive sampling method, where the researcher determines certain criteria to get the expected sample. The manufacturing companies that were the samples in this study were 106 companies, so the total sample of observations used in this study was 318 samples.

### **Operational Variables**

The variables in this study consisted of one dependent variable, one independent variable and one moderating variable. The dependent variable is the dependent variable which is influenced by the independent variable. In this study, using the audit delay variable as the dependent variable. The independent variable is the independent variable that affects the dependent variable.

This study uses bankruptcy prediction and auditor opinion as independent variables. The moderating variable is a variable that is able to strengthen or weaken the relationship between the independent variable and the dependent variable. The moderating variable in this study is the reputation of KAP.



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### Audit Report Lag

Audit report lag is the time between the closing date of the company's financial statements and the date the audited report is signed by an independent auditor. In this study, Audit report lag is measured by counting the number of days between the closing date of the financial statements and the signing date of the audited report (Sakka & Jarboui, 2016).

### Financial Distress

Financial distress is a condition in which a company experiences financial difficulties before the bankruptcy occurs. According to Hanafi & Halim (2009) financial distress is measured using the Altman Z-score method with the following formula:

$$Z\text{-score} = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,64X_4 + 1,0X_5$$

Where :

$X_1$  = Working Capital / Total Asset (Working Capital to Total Asset)

$X_2$  = Retained Earnings / Total Assets (Retained Earnings to Total Asset)

$X_3$  = Income Before Deducting Tax and Interest Costs / Total Assets (Earning Before Interest and Taxes (EBIT) to Total Asset)

$X_4$  = Market Value of Equity to Book Value of Total Liabilities

$X_5$  = Sales / Total Asset (Sales to Total Asset)

It can be concluded that the smaller the Z-Score, the company is said to be experiencing financial distress.

### CPA Firm Size

CPA firm is a business entity that has obtained a permit from the Minister of Finance as a forum for public accountants to provide services. Murti & Widhiyani (2016) state that the CPA Firm reputation indicator can be seen from the use of CPA FIRM services that are affiliated with the big four or not. In Indonesia, there are four major CPA FIRM affiliated with the Big Four CPA Firm in the world, including Osman Bing Satrio and partner's CPA Firm; Tanudiredja's CPA Firm, Wibisana and partner's CPA Firm; Suherman and Surja CPA Firm; Siddharta and Widjaja CPA Firm. In this study, the CPA Firm reputation variable was measured by dummy variables. Companies that use CPA Firm services that are under the auspices of big four CPA Firm will be given a score of 1 while companies that use CPA Firm services that are not big four will be given a score of 0.

### Panel Data Analysis Method

This study uses panel data regression analysis. Panel data is a combination of cross section and time series data. Panel data regression techniques can use three alternative approaches to processing methods. The approach is Common Effect Model, Fixed Effect Model, Random Effect Model. Model selection is done by several tests, namely the Chow test and Hausman test. The dependent variable in this study is audit report lag. Meanwhile, the independent variables include: financial distress. The multiple regression model in this study is as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2Z + e$$

## 4. RESULTS AND DISCUSSIONS

Based on the model selection test that has been carried out (chow test and hausman test), the regression model used in the analysis of the factors that influence foreign direct investment in Indonesia is the random effect model.



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## Panel Data Analysis

Below is the result of Chow Test Calculation:

**Table 1: Chow Test Results**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.758361	(105,210)	0.0000
Cross-section Chi-square	275.628470	105	0.0000

### Sumber: Output Eviews

Based on table 1, the results of the Chow test in this study show the probability value of Cross-section F of 0.0000. The probability value of  $0.0000 < 0.05$  or  $P < 5\%$ , it can be concluded that the best model is the Fixed Effect, so in this study it is necessary to continue the Hausman test to see the consistency of estimation with OLS.

The Hausman test examine which model is the best between the Random Effect and the Fixed Effect. If the Hausman test results show a significant value  $< 5\%$ , the model chosen is Fixed Effect. The following are the results of the Hausman test calculations.

**Table 2: Hausman Test Results**

Correlated Random Effects - Hausman Test  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.470060	2	0.0394

Based on table 2, the results of the Hausman test in this study indicate a random cross-section probability value of 0.0394. The probability value of  $0.0394 < 0.05$  or  $P < 5\%$ , it can be concluded that the chosen model is Fixed Effect. Thus in this study continued by using the Fixed Effect Model.

**Table 3: Descriptive Statistics**

	Y	X1	X1Z
Mean	85.33962	-0.402699	-0.840849
Median	84.00000	1.604935	0.000000
Maximum	191.0000	6.877930	5.140000
Minimum	22.00000	-195.4333	-195.4300
Std. Dev.	23.87555	13.92041	13.62115
Skewness	1.217811	-10.90890	-11.52394
Kurtosis	6.525700	137.6205	148.5921
Jarque-Bera Probability	243.3072 0.000000	246432.8 0.000000	287899.5 0.000000
Sum	27138.00	-128.0583	-267.3900
Sum Sq. Dev.	180703.3	61427.53	58814.82
Observations	318	318	318



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Table 3 shows that the variables tested were normally distributed. The p-values Jarque-Bera are statistically significant at the 5% level. All variables have been normally distributed. The average report lag was 85.3 days.

**Table 4: Hypotesis Test Analysis**

Variable	Coeffisien Regresion	Probability
Constant (C)	87.23954	0.0000
Financial Distress (X1)	-5.010697	0.0000
Financial Distress* CPAFirm Size	4.659242	0.0000
R-Squared		0.641742
F-Static		3.515604
Prob. F-static		0.000000

Table 4 shows that the model can be used to explain the relationship between the dependent variable and the independent variable. The R-squared value is 0.642. It shows that 64.2% change in variation in the audit report lag is affected by the independent variable being tested. The probability of the F-Test (0.000) shows that there is a significant linear relationship between the variables tested.

The results of data processing show that Financial Distress has a negative coefficient value (-5.091) with a significance level of 0.000 ( $<0.05$ ). The results of this study indicate statistically the lower the value of the financial distress ratio (as measured by the Altman Z Score), the longer the audit report lag will be. Based on the results of data processing, it can be concluded that H1 is accepted. The results of this study are in accordance with the prediction of the direction in which financial distress negatively affects the audit report lag. This means that the higher the Z-Score, the shorter the audit report lag will be. Companies that have a high Z-Score value indicate that the company is in a sound financial condition and not bankrupt. Healthy financial conditions are good news in financial reports. The good news will increase a positive impression for the company in the public point of view. Therefore, the company will not delay the delivery of information containing good news. Companies will more quickly present financial reports that are ready to be audited by auditors.

Financial distress that occurs in the company can increase the audit risk for independent auditors, especially control risk and detection risk. With the increased risk, the auditor must conduct a risk examination before carrying out the audit process, to be precise in the audit planning phase so that this can result in a long time. the audit process and has an impact on the increase in audit report lag (Praptika & Rasmini, 2016). This result is in line with the results of previous studies which found that companies that are in a state or condition of financial distress, the time to audit their financial statements will be even longer. Research by Siahaan, Surya, & Zarefar (2019) and Himawan & Venda, (2020) found that financial distress has a significant negative effect on audit report lag.

From the regression analysis, it is known that the CPA Firm measure has a coefficient value of 4.659 with a significance level of 0.0000 ( $<0.05$ ). From these results it can be concluded that the CPA Firm Size strengthens the negative relationship between financial distress and audit report lag. Companies that use the Big Four CPA Firm services, the faster they will report their financial reports. Meanwhile, companies that do not use the services of Big Four accountants, these companies will report their financial reports longer, especially when they are in a state or condition of financial distress.



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### 5. CONCLUSION

This study examines the effect of financial distress on the audit report lag using a sample of manufacturing companies listed on the Indonesian Stock Exchange for the 2017-2019 period. From the results of data processing using eviews, it shows that the financial distress of the company has a significant negative effect on the length of time the financial audit report is published. The company's financial distress is measured using the Altman Z Score. The smaller the Z Score of a company, it indicates that the company is experiencing financial distress and vice versa. The results of this study indicate that the smaller the company's Z Score, the longer the audit of the financial statements will be. The small amount of business risk of the company has an impact on the speed with which auditors can complete the audit work. The faster the company presents the financial statements that are ready for auditing by the auditor. While the sooner the audit work is completed by the auditor, the shorter the audit report lag will be. Further researchers are advised to add other variables beyond the variables that have been used. Adding years of research and being able to choose research locations in other sectors to see the effect of other variables on audit delay. Further researchers can also consider the measurement of DAR (debt to total assets) in the financial distress variable, namely debt to third parties and related parties because the interest on the loan may be softer so that it is less able to reflect the company's financial distress

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## ANALYSIS OF SOLVABILITY AND PROFITABILITY OF STATE-OWNED ENTERPRISES (BUMN) AROUND PALEMBANG CITY PERIOD 2014-2018

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### Abstract

This study aims to determine the solvency and profitability of State-Owned Enterprises (SOE) around Palembang City. This study uses a quantitative descriptive approach. The population of this research is State Owned Enterprises (SOE) and sampling method was PT. Pupuk Sriwidjadja (Persero) and PT. Semen Baturaja (Persero) was period 2014-2018. The solvency ability of PT Pupuk Sriwidjadja (Persero), seen from the Debt to Asset Ratio and Debt to Equity Ratio, was in a bad condition from 2014-2018. Meanwhile, the ability of profitability to return on assets and return on equity has decreased period 2014-2018. The solvency ability of PT Semen Baturaja (Persero) seen from the Debt to Asset Ratio period 2014-2017 is in good condition. Meanwhile, in 2018 it was quite good and the Debt to Equity Ratio was in good condition in 2014-2018. Meanwhile, the ability of profitability to return on assets and return on equity has decreased period 2014-2018. The limitations of this study are of the many existing financial ratios, researchers only use the solvency and profitability ratios that represent each variable, the research period was only conducted for 4 years from 2014 to 2018, the sample used in this study is a state-owned company in the city of Palembang. The contribution of this research is related to the analysis of debt and income used by the Palembang city state-owned enterprises.

**Keywords:** *Financial Statements, Solvency, Profitability*

### 1. INTRODUCTION

Indonesian economics condition is getting more advanced day by day dan has business competition. It can affect the company in the future and survive the conditions of harsh competition. A company must see the right steps to be able to maintain the survival of the company. As a basic example in seeing the ability of the company's condition is by looking at the company's financial statements. Seeing the ability of the company's financial condition is very useful so that the company knows the financial position and reports are effective, efficient or not all.

Financial statements are basically the result of an accounting process that can be used as a tool to communicate between financial data or activities of a company and parties with an interest in financial position (Munawir, 2014:2). The company's financial statements aims to provide information regarding the financial position, performance and changes in the financial position of a company which is useful for a number of users of financial statements. A good company condition is the strength of the company to be able to survive and develop in an effort to achieve company goals.

Financial reports are important to provide information that can be used for decision making. Many parties have an interest in financial reports such as investors, potential investors, funders , potential funders even to the management of the company itself. Financial reports are expected to provide information about profitability, risk, and timing of the cash flows which are generated by the company. This information will affect the expectations of interested parties and in turn will affect the value of the company (Hanafi, 2016: 27).



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Measurement of financial conditions is generally used in companies which have issued corporate financial statements in the form of statements of financial position, income statements, cash flow reports, and changes in capital. This study will specifically analyze the financial condition of State-Owned Enterprises (SOE) by looking at long-term debt and profits. State-Owned Enterprises are a source of income for Indonesia. The government must conduct an analysis of each State-Owned Enterprises to ascertain whether their financial condition is good or bad. One of them that shows a bad financial condition is jiwasraya.

Financial ratios will be used to analyze the financial condition of State Owned Enterprises around Palembang City. This is because there is one State-Owned Enterprises (PT Semen Baturaja ) Tbk around Palembang City, whose profits fell by 68% in the first half of 2019 (okezone.com). The net profit of PT Semen Baturaja (Persero) Tbk in 2019 decreased from Rp 24.1 billion to Rp 7.5 billion in 2018. The director of PT Semen Baturaja (Persero) Tbk explained that the decrease was due to an increase in outside business expenses in the form of expenses. finance and corporate income tax.

Financial ratios are activities to compare numbers in financial statements by dividing one number by another. The results of financial ratios are used to assess management's financial performance in a period. Each type of ratio will provide its own meaning in describing the company's financial condition (Kasmir, 2015: 4). The ratios that will be used to assess the ability of State-Owned Enterprises around Palembang are solvency ratios such as: Debt to Asset Ratio and Debt to Equity Ratio. For profitability ratios such as: Return on Assets and Return on equity.

According to Kasmir (2015: 123), the solvency ratio is a ratio that measures the extent to which a company is able to pay all its debts. The ratios that are often used are: Debt to Total Assets (Debt to Asset Ratio) and Debt to Equity Ratio (Debt to Equity Ratio). Meanwhile, according to Hanafi (2016: 42) profitability ratios are used to measure the company's ability to generate profits (profitability) at the level of sales, assets and certain share capital. The ratios that are often used are Return on Assets (ROA) and Return on Equity (ROE).

## 2. LITERATURE REVIEW AND RESEARCH FRAMEWORK

### *Agency Theory*

Agency theory according to Jensen and Meckling (1976) is a contract under one or more involving agents to carry out several services for them by delegating decision-making authority to agents. Both agents and agents are assumed to be economically rational people and are solely motivated by personal interests, delegating decision-making about the company to managers or agents. However, managers do not always act according to shareholder wishes. The main objective of agency theory is to explain how the parties in a contractual relationship can design a contract which aims to minimize costs as a result of asymmetric information and uncertainty conditions.

Both parties will receive benefits and minimize costs when the company's financial performance shows good results. The harmonious relationship between owners and management is influenced by the owner's assessment of management's performance. The owner expects a large return on investment on the funds that have been entrusted to company management. Conversely, the management of the company must make the company's financial performance good in order to receive compensation or awards from the owner.

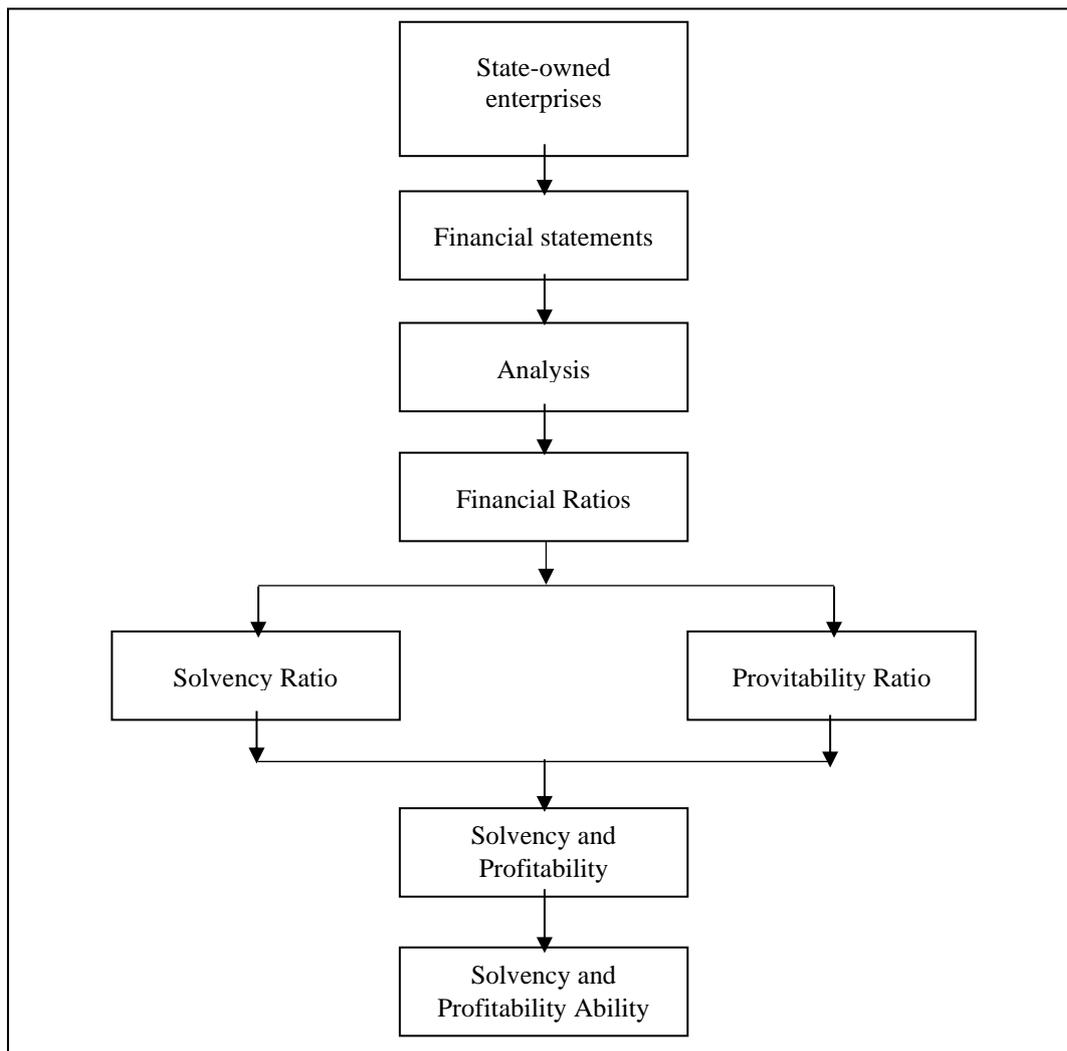
### *Signaling Theory*

Signal (signal) is an action taken by the management of a company to provide guidance to investors on how management assesses the prospects of the company. The possibility of information asymmetry between company management and interested parties encourages management to provide a signal to interested parties to reduce the information asymmetry (Brigham and Houston, 2015: 186).

Both investors and managers have the same information about the prospects for the company. Information held by both investors and managers is referred to as symmetrical information. Symmetric information is a situation where investors and managers have identical information about the company's

prospects. In fact, managers have better information than outside investors. The better information a manager has than an outside investor is often referred to as asymmetric information. Asymmetric information is a situation where managers have different (better) information about the company's prospects compared to that of investors. So there are two situations, namely, a situation where company managers know that the prospect will be very profitable and another situation where company managers know that the future looks unfavorable. (Brigham and Houston, 2015: 186).

Signal theory explains that good quality companies will deliberately signal the market. Thus, the market is expected to differentiate between good and bad quality companies. For these signals to be effective, they must be able to be captured by the market and well perceived, and not easily copied by other companies with poor quality. This theory reveals that investors can distinguish between companies that have high value and companies that have low value (Brigham and Houston, 2015: 187).



**Picture 1: Research Framework**

### 3. RESEARCH METHODOLOGY

The type of research carried out in this research is to use quantitative research which is carried out by using calculations of quantitative data in the form of financial reports. According to Sugiyono (2018: 2), quantitative research is research that requires the use of numbers, starting from data collection, interpretation of the data and the appearance of the data results.



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The approach in this research is a descriptive approach. According to Nawawi (2017: 67), descriptive can be interpreted as a procedure for solving a problem that is investigated by describing or describing the condition of the subject or object of research (a person, institution, society, etc.) at the present time based on visible facts or as they are.

The types and sources of data are used to support the discussion conducted in this study are secondary data. According to Rianse and Abdi (2018: 212) secondary data is data taken from a second source or not from the original source. Secondary data obtained and collected by researchers is about the financial statements of BUMN in the city of Palembang.

According to Sugiyono (2013) population is a generalization area consisting of: objects / subjects that have certain qualities and characteristics that are determined by researchers to be studied and then draw conclusions. The population in this study were all BUMN.

The sample is part of the number and characteristics of the population (Sugiyono, 2013). The sample in this study was selected using purposive sampling method. According to Sugiyono (2013) purposive sampling is a sampling technique with certain considerations. The sample selection in this study used the following criteria:

- 1) The company is BUMN.
- 2) The company's head office is located around Palembang City, South Sumatra.
- 3) The company publishes financial reports regularly.

Based on the purposive sampling method, the companies that will be sampled in this study are PT. Pupuk Sriwidjaja (Persero) and PT. Semen Baturaja (Persero). The financial report year taken starts from 2014 to 2018. Ratios taken from solvency are Debt to Asset Ratio and Debt to Equity Ratio. Meanwhile, profitability is Return on Assets and Return on equity.

## 4. RESULTS AND DISCUSSIONS

### A. PT Pupuk Sriwidjaja (Persero)

#### 1. Solvency Ratio

The solvency ratio is a ratio that measures the extent to which the company's ability to pay off all of its debts, the ratios included in the solvency ratio, namely:

- a. Debt to total assets ratio Is the ratio between (current debt and long-term debt) and the total known assets.

$$\text{Debt to Asset Ratio (DAR)} = \frac{\text{Total Amount of debt}}{\text{Total assets}}$$

#### **Debt to Asset Ratio PT Pupuk Sriwidjaja (Persero) tahun 2014-2018**

Years	(1)	(2)	<i>Debt to Asset Ratio (DAR)</i>
	Total Amoun of debt (in million Rupiah)	Total Assets (in million Rupiah)	(3) = (1)/(2)
2014	8.646.771	14.274.398	60,58%
2015	12.434.364	18.495.639	67,23%
2016	15.361.450	29.348.656	52,34%
2017	15.067.098	29.136.560	51,71%



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2018	14.455.919	28.820.128	50,16%
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*Source: processed data, 2020*

b. Debt to Equity Ratio Is a comparison between debt and equity.

$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Amount of debt}}{\text{Total equity}}$$

### **Debt to Equity Ratio (DER) PT Pupuk Sriwidjaja (Persero) tahun 2014-2018**

Years	(1) Total Debt (in million Rupiah)	(2) Share Capital (in million Rupiah)	Debt to Equity Ratio (DER) (3) = (1)/(2)
2014	8.646.771	5.627.627	153,65%
2015	12.434.364	6.061.266	205,14%
2016	15.361.450	13.987.206	109,83%
2017	15.067.098	14.069.462	107,09%
2018	14.455.919	14.364.209	100,64%

*Source: processed data, 2020*

## 2. Profitability Ratio

Profitability ratio is the ratio to assess the company's ability to seek profit. The types of ratios are:

a. *Return On Assets*

The ratio that shows the company's ability to use all its assets to generate profit after tax.

$$\text{Return on assets (ROA)} = \frac{\text{Net profit}}{\text{Total assets}}$$

### **Return On Asset (ROA) PT Pupuk Sriwidjaja (Persero) tahun 2014-2018**

Years	(1) Net Profit (in million Rupiah)	(2) Total Assets (in million Rupiah)	Return On Asset (ROA) (3) = (1)/(2)
2014	701.038	14.274.398	4,91%
2015	500.681	18.495.639	2,71%
2016	592.585	29.348.656	2,02%
2017	520.380	29.136.560	1,79%
2018	551.712	28.820.128	1,91%

*Source: processed data, 2020*

b. *Return On Equity*

The ratio used to measure the net profit after tax to the company's equity.



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$$\text{Return on equity (ROE)} = \frac{\text{Net profit}}{\text{Total ordinary equity}}$$

### Return On Equity (ROE) PT Pupuk Sriwidjaja (Persero) tahun 2014 - 2018

Years	(1) Net Profit (in million Rupiah)	(2) Share Capital (in million Rupiah)	Return On Equity (ROE) (3) = (1)/(2)
2014	701.038	5.627.627	12,46%
2015	500.681	6.061.266	8,26%
2016	592.585	13.987.206	4,24%
2017	520.380	14.069.462	3,70%
2018	551.712	14.364.209	3,84%

*Source: processed data, 2020*

### B. PT Semen Baturaja (Persero)

#### 1. Solvency Ratio

The solvency ratio is a ratio that measures the extent to which the company's ability to pay all its debts, the ratios that are incorporated in the solvency ratio, namely:

- a. Debt to Assets Ratio Is the ratio between (current debt and long-term debt) and the total known assets.

$$\text{Debt to Asset Ratio (DAR)} = \frac{\text{Total Amount of debt}}{\text{Total assets}}$$

### Debt to Asset Ratio PT Semen Baturaja (Persero) tahun 2014-2018

Years	(1) Total Amount of debt (in million Rupiah)	(2) Total Assets (in million Rupiah)	Debt to Asset Ratio (DAR) (3) = (1)/(2)
2014	209.114	2.928.480	7,14%
2015	319.315	3.268.668	9,77%
2016	1.248.119	4.368.877	28,57%
2017	1.647.477	5.060.337	32,56%
2018	2.064.408	5.538.080	37,28%

*Source: processed data, 2020*

- b. Debt to Equity Ratio Is a comparison between debt and equity.



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$$\text{Debt to Equity Ratio (DER)} = \frac{\text{Total Amount of debt}}{\text{Total equity}}$$

### *Debt to Equity Ratio (DER) PT Semen Baturaja (Persero) tahun 2014-2018*

Years	(1) Total Debt (in million Rupiah)	(2) Share Capital (in million Rupiah)	Debt to Equity Ratio (DER) (3) = (1)/(2)
2014	209.114	2.683.092	7,79%
2015	319.315	2.949.353	10,83%
2016	1.248.119	3.120.758	39,99%
2017	1.647.477	3.412.860	48,27%
2018	2.064.408	3.473.671	59,43%

*Source: processed data*

## 2. Profitability Ratio

Profitability ratio is the ratio to assess the company's ability to seek profit. The types of ratios are:

### a. Return On Assets

The ratio that shows the company's ability to use all its assets to generate profit after tax.

$$\text{Return on assets (ROA)} = \frac{\text{Net profit}}{\text{Total assets}}$$

### *Return On Asset PT Semen Baturaja Tbk (Persero) tahun 2014 - 2018*

Years	(1) Net Profit (in million Rupiah)	(2) Total Assets (in million Rupiah)	Return On Aset (ROA) (3) = (1)/(2)
2014	335.955	2.928.480	11,47%
2015	354.180	3.268.668	10,84%
2016	259.091	4.368.877	5,93%
2017	146.648	5.060.337	2,90%
2018	76.075	5.538.080	1,37%

*Source: processed data, 2020*

### b. Return On Equity

The ratio used to measure the net profit after tax to the company's equity.

$$\text{Return on equity (ROE)} = \frac{\text{Net profit}}{\text{Total ordinary equity}}$$



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### Return On Equity PT Semen Baturaja Tbk (Persero) tahun 2014 - 2018

Years	(1) Net Profit (in million Rupiah)	(2) Share Capital (in million Rupiah)	Return On Equity (ROE) (3) = (1)/(2)
2014	335.955	2.683.092	12,52%
2015	354.180	2.949.353	12,01%
2016	259.091	3.120.758	8,30%
2017	146.648	3.412.860	4,30%
2018	76.075	3.473.671	2,19%

Source: processed data, 2020

### PT Pupuk Sriwidjaja (Persero)

#### 1. Solvency Ratio

##### a. Debt to Asset Ratio

In 2014 it was 60.58%, 2015 67.23%, 2016 52.34%, 2017 51.71% and 2018 50.16%. The industry standard for debt ratio is 35% (Kasmir, 2015: 157). According to Kasmir (2015: 157) debt to asset ratio is a debt ratio used to measure the ratio between total debt and total assets. In other words, how much the company's assets are financed by the company's debt has an effect on asset management.

Signal Theory is an action taken by the management of a company to provide guidance to investors on how management assesses the company's prospects. The possibility of information asymmetry between company management and interested parties encourages management to provide a signal to interested parties to reduce the information asymmetry (Brigham and Houston, 2015: 186).

In 2014-2018 it can be said that DAR was not in a good condition. This is because DAR from 2014-2018 is high, exceeds industry standards, meaning that funding with more debt means that it is increasingly difficult for companies to obtain additional loans because it is feared that the company will not be able to cover its debts with the assets it owns. So that companies find it more difficult to get loans and companies have more difficulty meeting long-term debts.

##### b. Debt to Equity Ratio

The DER value in 2014 was 153.65%, in 2015 it was 205.14%, in 2016 it was 109.83%, in 2017 it was 107.09% and in 2018 it was 100.64%. The industry standard for debt to equity ratio is 80% (Kasmir, 2015: 159). When compared with industry standards, it can be said that the years 2014-2018 are not good.

Signal Theory is an action taken by the management of a company to provide guidance to investors on how management assesses the company's prospects. The possibility of information asymmetry between company management and interested parties encourages management to provide a signal to interested parties to reduce the information asymmetry (Brigham and Houston, 2015: 186).

If it increases and is above the industry average, the risk is higher because of the high level of debt, which is financed from its own capital. The greater the DER number of a company, the more difficult the management must work to maintain the company's cash flow. Higher risks are expected to provide higher returns.



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### 2. Profitability Ratio

#### a. Return on assets

The ROA of PT Pupuk Sriwidjaja (Persero) has decreased from 2014-2018. The company's ROA ratio in 2014 was 4.91%. This ratio continued to decline in 2015 and 2016 to 2.71% and 2.02%. In 2017 and 2018 ROA also continued to decline from the previous years to 1.79% in 2017 and 1.91% in 2018.

Agency theory according to Jensen and Meckling (1976) is a contract under one or more involving agents to carry out several services for them by delegating decision-making authority to agents. Both agents and agents are assumed to be economically rational people and are solely motivated by personal interests, delegating decision-making about the company to managers or agents. However, managers do not always act according to shareholder wishes. The main objective of agency theory is to explain how the parties in a contractual relationship can design a contract with the aim of minimizing costs as a result of asymmetric information and uncertainty.

Both parties will receive benefits and minimize costs when the company's financial performance shows good results. The harmonious relationship between owners and management is influenced by the owner's assessment of management's performance. The owner expects a large return on investment on the funds that have been entrusted to company management. Conversely, the management of the company must make the company's financial performance good in order to receive compensation or awards from the owner.

#### b. Return on equity

Based on the table above, the ROE of PT Pupuk Sriwidjaja (Persero) has decreased from 2014-2018. The ROE rate of the company in 2014 was 12.46%. This ratio continued to decline in 2015 and 2016 to 8.26% and 4.24%. In 2017 and 2018 ROE also continued to decline from the previous years to 3.70% in 2017 and 3.84% in 2018.

Agency theory according to Jensen and Meckling (1976) is a contract under one or more involving agents to carry out several services for them by delegating decision-making authority to agents. Both agents and agents are assumed to be economically rational people and are solely motivated by personal interests, delegating decision-making about the company to managers or agents. However, managers do not always act according to shareholder wishes. The main objective of agency theory is to explain how the parties in a contractual relationship can design a contract with the aim of minimizing costs as a result of asymmetric information and uncertainty.

Both parties will receive benefits and minimize costs when the company's financial performance shows good results. The harmonious relationship between owners and management is influenced by the owner's assessment of management's performance. The owner expects a large return on investment on the funds that have been entrusted to company management. Conversely, the management of the company must make the company's financial performance good in order to receive compensation or awards from the owner.

### PT Semen Baturaja (Persero)

#### 1. Solvency Ratio

##### a. Debt to Asset Ratio

In 2014 it was 7.14%, 2015 was 9.77%, 2016 was 28.57%, 2017 was 32.56% and 2018 was 37.28%. The industry standard for debt ratio is 35% (Kasmir, 2015: 157). According to Kasmir (2015: 157) debt to asset ratio is a debt ratio used to measure the ratio between total debt and total assets. In other words, how much the company's assets are financed by the company's debt has an effect on asset management.

Signal theory is an action taken by the management of a company to provide guidance to investors on how management assesses the prospects of the company. The possibility of information asymmetry



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between company management and interested parties encourages management to provide a signal to interested parties to reduce the information asymmetry (Brigham and Houston, 2015: 186).

In 2014-2017 it can be said that DAR is in good condition because it is below the industry standard of 35%. Meanwhile, in 2018 it is in quite good condition. In 2018 only slightly exceeded the industry standard. So that it is easier for companies to get loans and companies can meet long-term debts.

### *b. Debt to Equity Ratio*

Signal Theory is an action taken by the management of a company to provide guidance to investors on how management assesses the company's prospects. The possibility of information asymmetry between company management and interested parties encourages management to provide a signal to interested parties to reduce the information asymmetry (Brigham and Houston, 2015: 186).

The DER value in 2014 was 7.79%, in 2015 it was 10.83%, in 2016 it was 39.99%, in 2017 it was 48.27% and in 2018 it was 59.43%. The industry standard for debt to equity ratio is 80% (Kasmir, 2015: 159). When compared with similar industry standards, it can be said that in 2014-2018 it is said to be good. This DER in 2014-2018 is said to be good because the company can meet long-term debts.

## **2. Profitability Ratio**

### *a. Return on assets*

The ROA of PT Semen Baturaja (Persero) has decreased from 2014-2018. The ROA level of the company in 2014 was 11.47%. This ratio continued to declines in 2015 and 2016 to 10.84% and 5.93%. In 2017 and 2018 ROA also continued to decline from the previous years to 2.90% in 2017 and 1.37% in 2018.

Agency theory according to Jensen and Meckling (1976) is a contract under one or more involving agents to carry out several services for them by delegating decision-making authority to agents. Both agents and agents are assumed to be economically rational people and are solely motivated by personal interests, delegating decision-making about the company to managers or agents. However, managers do not always act according to shareholder wishes. The main objective of agency theory is to explain how the parties in a contractual relationship can design a contract with the aim of minimizing costs as a result of asymmetric information and uncertainty.

Both parties will receive benefits and minimize costs when the company's financial performance shows good results. The harmonious relationship between owners and management is influenced by the owner's assessment of management's performance. The owner expects a large return on investment on the funds that have been entrusted to company management. Conversely, the management of the company must make the company's financial performance good in order to receive compensation or awards from the owner.

### *b. Return on equity*

The ROE of PT Semen Baturaja Tbk (Persero) has decreased from 2014-2018. The company's ROE rate in 2014 was 12.52%. This ratio continued to decline in 2015 and 2016 to 12.01% and 8.30%. In 2017 and 2018 ROE also continued to decline from previous years to 4.30% in 2017 and 2.19% in 2018.

Agency theory according to Jensen and Meckling (1976) is a contract under one or more involving agents to carry out several services for them by delegating decision-making authority to agents. Both agents and agents are assumed to be economically rational people and are solely motivated by personal interests, delegating decision-making about the company to managers or agents. However, managers do not always act according to shareholder wishes. The main objective of agency theory is to explain how the parties in a contractual relationship can design a contract with the aim of minimizing costs as a result of asymmetric information and uncertainty.



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Both parties receive benefits and minimize costs when the company's financial performance shows good results. The harmonious relationship between owners and management is influenced by the owner's assessment of management's performance. The owner expects a large return on investment on the funds that have been entrusted to company management. Conversely, the management of the company must make the company's financial performance good in order to receive compensation or awards from the owner.

### 5. CONCLUSION

1. The solvency ability of PT Pupuk Sriwidjadja (Persero) as seen from:
  - a. Debt to Asset Ratio is not in a good condition. This is because DAR from 2014-2018 was high, exceeding industry standards. The industry standard for debt ratio is 35% (Kasmir, 2015: 157). The DAR value in 2014 was 60.58%, 2015 was 67.23%, 2016 was 52.34%, 2017 was 51.71% and 2018 was 50.16%.
  - b. Debt to Equity Ratio, when compared with similar industry standards, it can be said that in 2014-2018 it is said to be not good. The industry standard for debt to equity ratio is 80% (Kasmir, 2015: 159). The DER value in 2014 was 153.65%, in 2015 it was 205.14%, in 2016 it was 109.83%, in 2017 it was 107.09% and in 2018 it was 100.64%.
2. The solvency ability of PT Semen Baturaja (Persero) as seen from:
  - a. Debt to Asset Ratio In 2014-2017 it can be said that DAR is in good condition because it is below the industry standard of 35%. Meanwhile, in 2018 it is in quite good condition. In 2018 only slightly exceeded the industry standard. The industry standard for debt ratio is 35% (Kasmir, 2015: 157). The DAR value in 2014 was 7.14%, 2015 was 9.77%, 2016 was 28.57%, 2017 was 32.56% and 2018 was 37.28%.
  - b. Debt to Equity Ratio, when compared with similar industry standards, it can be said that in 2014-2018 it is said to be good. This DER in 2014-2018 is said to be good because the company can meet long-term debts. The industry standard for debt to equity ratio is 80% (Kasmir, 2015: 159). The DER value in 2014 was 7.79%, in 2015 it was 10.83%, in 2016 it was 39.99%, in 2017 it was 48.27% and in 2018 it was 59.43%.
3. The profitability of PT Pupuk Sriwidjadja (Persero) is seen from:
  - a. The return on assets of PT Pupuk Sriwidjaja (Persero) has decreased from 2014-2018. The company's ROA ratio in 2014 was 4.91%. This ratio continued to decline in 2015 and 2016 to 2.71% and 2.02%. In 2017 and 2018 ROA also continued to decline from the previous years to 1.79% in 2017 and 1.91% in 2018.
  - b. PT Pupuk Sriwidjaja (Persero) 'return on equity has decreased from 2014-2018. The ROE rate of the company in 2014 was 12.46%. This ratio continued to decline in 2015 and 2016 to 8.26% and 4.24%. In 2017 and 2018 ROE also continued to decline from the previous years to 3.70% in 2017 and 3.84% in 2018.
4. The profitability ability of PT Semen Baturaja (Persero) is seen from:
  - a. The return on assets of PT Semen Baturaja (Persero) has decreased from 2014-2018. The ROA level of the company in 2014 was 11.47%. This ratio continued to decline in 2015 and 2016 to 10.84% and 5.93%. In 2017 and 2018 ROA also continued to decline from the previous years to 2.90% in 2017 and 1.37% in 2018.
  - b. The return on equity of PT Semen Baturaja Tbk (Persero) has decreased from 2014-2018. The company's ROE rate in 2014 was 12.52%. This ratio continued to decline in 2015 and 2016 to 12.01% and 8.30%. In 2017 and 2018 ROE also continued to decline from previous years to 4.30% in 2017 and 2.19% in 2018.



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## LIMITATION AND STUDY FORWARD

The limitations of this study are:

1. Of the many existing financial ratios, researchers only use the solvency and profitability ratios that represent each variable.
2. The research period was only conducted for 4 years, from 2014 to 2018.
3. The sample used in this study is a state-owned company in the city of Palembang.

Further research are expected:

1. Using all existing financial ratios as variables.
2. Perform analysis using a period of more than 4 years.
3. The samples are not only BUMN in Palembang, at least BUMN in Sumatra or throughout Indonesia.

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## HOW COMPETENCE AND CREATIVITY AFFECT TEACHER'S PERFORMANCE?

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### Abstract

**Purpose:** This research aims to determine or analyze the first-grade teacher's performance in Kabupaten Bandung, as seen from competence and Creativity.

**Research Methodology:** The research method uses a quantitative descriptive and explanatory survey design. The population of the research is all first-grade teachers of 1408 schools in Kabupaten Bandung. Data collection use questionnaires made in the google form and get 387 respond to be analyzed. Data were analyzed by four tests, namely: normality test, hypothesis test, regression test, and determinant coefficient assisted by SPSS Program.

**Results:** independent variables affect dependant variables partially and simultaneously.

**Limitations:** numbers of independent variables can't provide a comprehensive answer to predict dependant variables.

**Contribution:** These research findings might be useful in the area or discipline of development in education and all other business or education-related topics.

### 1. INTRODUCTION

Teacher performance is the teacher's performance in carrying out the duties and functions assigned to them. In the implementation of education, teachers are the critical holders for developing a nation (Olaleye & Oluremi, 2013). The imposition of large-scale social restrictions (PSBB) during the Covid-19 pandemic resulted in enacting a physical distancing policy in every community activity, including teaching and learning activities in elementary school. The Ministry of Education and Culture issued a guideline for implementing online learning. Performance is influenced by competence (Armstrong, 2006; Riva'i, 2005; Johnson & Elaine, 2006; Barinto, 2012). Teachers are required to maximize their competence and Creativity so that they can work well and achieve curriculum targets. Given the importance of teacher performance in education, efforts are needed to improve teacher performance.

Wijaya (2012) states that teachers need Creativity and new ideas to develop ways of presenting and delivering subject matter when teaching. Individual Creativity has been empirically proven to have a positive and significant effect on employee performance; Eschleman et al., (2014). The main requirement for a teacher is competent and professional. One factor that influences performance is competence (Mangkunegara, 2009; Simanjuntak, 2005). According to Law No. 14 of 2005 concerning teachers and lecturers, professional competence is the ability to master the subject matter broadly and deeply. Strengthening teacher competence so that all of its potentials can be maximized is one way to improve education quality (Fernandez, 2013).

In 2018, only 12.43% of elementary school teachers considered themselves good at teaching literacy in literacy, and 21.27% believed themselves to be good at teaching mathematics (Revina, 2019). In 2017, the relevant ministries designed two types of Teacher Professional Improvement (PPG) programs, namely pre-service PPG and in-service PPG. However, many teachers do not meet the competency criteria even though they have previously participated in education and training programs.

Teachers at the forefront of scoring superior resources have an evenly distributed average performance (Pujiyanto, 2020). Teachers who have competencies above the average are not more than 30% (Seftiawan, 2019); it is said that the low number is because teachers and school principals are not interested in the



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challenge of building superior human resources. Teachers' competencies significantly affect their performance, which leads to the high quality of students in the future. Nationally, elementary school (SD) teachers only have an average score of 40.14 points out of the 80-grade points targeted by the government. This value is smallest than other levels, such as kindergarten, junior high, and high school. In Bandung Regency itself, the average UKG score obtained by teachers is only 57.03 points. This value is still the smallest compared to the UKG scores for SMP level 62.80 points, SMA 66.41 points, and SMK 61.49.

Research by Hadian and Yulianti (2011) found that teacher competence has a strong relationship with teacher performance and competence affects teacher performance by 27.6%. Sopandi (2019) states that competence has a significant effect on teacher performance, with a coefficient of 74.1% determination. However, Narsih (2017) says that competence does not influence teacher performance at SMKN 23 Jakarta.

Sumiyati (2007) states that the interpretation of Creativity influences the variation in high school chemistry teachers' performance in the Special Capital Region of Jakarta by 39%. Innovation is a form of Creativity. Ekawati et al. (2020) concluded that performance is influenced by 35.54% by innovation. However, Lakoy (2015) suggests that Creativity is not a factor or variable that can affect or improve employee performance.

This study aims to determine the effect of competence and Creativity on the performance of grade 1 primary school teachers in Bandung Regency. This research question focuses on whether there is a relationship between the independent and dependent variables and how much influence it simultaneously has.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Competence

According to Wibowo (2014), competence is the ability to carry out or perform a job or task based on skills and knowledge and is supported by the job's work attitude. Meanwhile, (Rivalina 2014) states that competence is an action or performance that describes the potential, knowledge, skills, and attitudes associated with a particular profession. Teacher competence is related to the concept of the nature and duties of teachers, namely a set of knowledge, skills, and behaviors that must be possessed, lived, mastered, and actualized by teachers in carrying out their professional duties (Law of the Republic of Indonesia No.14 of 2005 concerning Teachers and Lecturer, 2005). Based on this understanding, it can be concluded that competence is seen as a combination of knowledge, skills, innovativeness, and individual abilities of organizational members that can be used to produce professional services (Fitz-enz & Davison, 2011; Wibowo, 2014; Suswardji, 2012). There are several types of competencies according to Wibowo (2014), namely: Planning Competency, Influence Competency, Communication Competency, Interpersonal Competency, Thinking competency, Organizational Competency, Human Resources Management Competency, Leadership Competency, Client Service Competency, Business Competency, Self Management Competency, Technical / Operation Competency.

There are five types of characteristics in measuring competence according to Wibowo (2014), namely: (1) A motive or something that people consistently think or want that causes action, (2) Physical properties or characteristics and consistent responses to situations or information, (3) Attitudes or values or self-image of a person and is the belief that they can be useful in almost every case is part of the self-concept of people, (4) Knowledge or information that people have in a specific area, (5) Skills or ability to do physical tasks or mentally confidence—competencies or cognitive skills, including analytical and conceptual thinking. Romberg (2007) further states that competence can be seen through work experience, educational background, knowledge, and abilities.



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### **Creativity**

According to Munandar (2012), Creativity is the ability to see various possible solutions to a problem, a form of thought that has received less attention so far, such as receiving knowledge, memory, and reasoning (logical thinking). Lupiyoadi (2013) states that Creativity is a process that can be developed and improved. Creativity is a dynamic concept that applies to a wide array of human endeavors. Although there are variations in how people think about Creativity, creativity researchers generally agree that determinations of Creativity are based on the combination of two key attributes: Creativity is a blend of originality (newness, novelty) and usefulness (worthwhile, meaningful) as defined within a particular context (e.g., Plucker et al., 2004; Runco & Jaeger, 2012).

Roe in Frinces (2004) states that the requirements of a creative person are: openness to experience; observations to see in the usual way, curiosity, tolerance for ambiguity; independence in judgment, thought and action; needing and accepting autonomy; self-reliance, not being subject to supervision group, the availability to take calculated risks.

Employee creativity has been empirically proven to positively and significantly affect employee performance; Eschleman et al., (2014). Employee creativity can be reflected in four dimensions: idea generation, productivity improvement, knowledge creation, and creative problem-solving. Employees will exhibit the highest level of Creativity when they possess innovative cognitive style and proactive personality and perform tasks with high work discretion and less time pressure (Chen et al., 2015).

### **Performance**

Performance can be interpreted as a result of work in quality and quantity achieved by an employee in carrying out his duties by the responsibilities assigned to him (Mangkunegara, 2013). Performance is a comparison of the work performed by employees with predetermined standards. The performance also means the results achieved by a person, both quality and quantity, in an organization following the responsibility given to him (Rosmaini & Tanjung, 2019). Suwatno (2019) performance is an embodiment of the work that has been generated or carried by employees. Performance is the work result or the successful level of a person or group in an institution or organization, according to the responsibilities and authority in achieving organizational goals (Alfizi et al., 2019). Teacher performance can be described as tasks performed by a teacher at a certain period in the school system to achieve organizational goals

According to Mahmudi (2010), performance is a multidimensional construct which includes many factors that influence it, namely: personal/individual factors (competence, motivation, commitment), leadership factors, team factors, system factors (work systems, organizational culture), contextual factors ( external and internal environment). Wirawan (2009) factors that influence performance include internal factors (talent, traits, skills, experience, and work motivation), internal organizational environmental factors (policies, corporate strategy, compensation, management, organizational culture), external environmental factors. (economic, political, social, cultural, religious).

Uno and Lamatenggo, 2012) state that the performance of a person (including teachers) can be measured through five indicators, namely: (1) Quality of work, which relates to the quality of teacher work in mastering everything related to the preparation of learning program planning and the application of research results in learning in class; (2) Speed / Work Determination, relating to the accuracy of the teacher's work in adjusting teaching materials to the characteristics of students and completing teaching programs according to the academic calendar; (3) Initiative at Work, related to the initiative of teachers in using a variety of learning models according to the subject matter and using various school inventories wisely; (4) Work Ability, relating to the ability of teachers to lead classroom conditions to remain conducive, management of teaching and learning activities, and assessment of student learning outcomes;



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(5) Communication, related to the communication made by teachers in the process of tutoring services with underprivileged students.

Employee performance impacts many things, namely: increasing skills and abilities; improvement of conditions, improving quality and work results; optimal development and utilization of employees, healthy reciprocal relationship between employees and superiors. The purpose of performance appraisal is to: determine the level of employee performance so far, provide ideal salary, accountability of employees, differentiate between employees, develop human resources, increase work motivation and work ethic, strengthen relationships between employees and supervisors through discussion of work progress, obtaining feedback from employees to improve job design, selection research as a success/effectiveness criterion, sources of information for human resource planning, helping to position employees in suitable jobs to achieve good results, sources of information for appropriate decision making relating to salaries, incentives, and other rewards.

### **Theoretical Framework**

#### *The Influence of Competency on Performance*

Research by Hadian and Yulianti (2011) found that teacher competence has a strong relationship with teacher performance and competence affects teacher performance by 27.6%. Sopandi (2019) states that competence has a significant effect on teacher performance, with a coefficient of 74.1% determination. In total, teacher competence has had a 42.55% effect on improving teacher performance (Mutakin, 2013). Setyono and Sudjadi (2011) state that teacher competence positively influences teachers' performance at SMA Negeri 1 Patimuan, Cilacap Regency, meaning that the better the competence of teachers who are run, the higher the teacher performance of SMA Negeri 1 Patimuan, Cilacap Regency. Fitria's research (2014) shows that teacher competence positively and significantly affects Islamic religious education teachers' performance in elementary schools in the Gunung Talang sub-district, Solok Regency, by 31.4%. Tafqihan and Suryanto (2014) state that competence has a positive effect of 15.9% on performance. Competence has an influence of 36.47% on teacher performance (Koswara and Rasto, 2016). However, Narsih (2017) states that competence has no effect on teacher performance at SMKN 23 Jakarta.

#### **H1: Competence has a positive effect on performance**

#### *The Influence of Creativity on Performance*

Sumiyati (2007) states that the interpretation of Creativity influences the variation in high school chemistry teachers' performance in the Special Capital Region of Jakarta by 39%. Innovation is a form of Creativity. Ekawati et al. (2020) concluded that performance is influenced by 35.54% by innovation. Creativity has a significant positive effect on performance (Dama and Ogi, 2018; Rompas et al., 2020; Nurrohman, 2020; Muhti, 2017). However, Lakoy (2015) suggests that Creativity is not a factor or variable that can affect or improve employee performance.

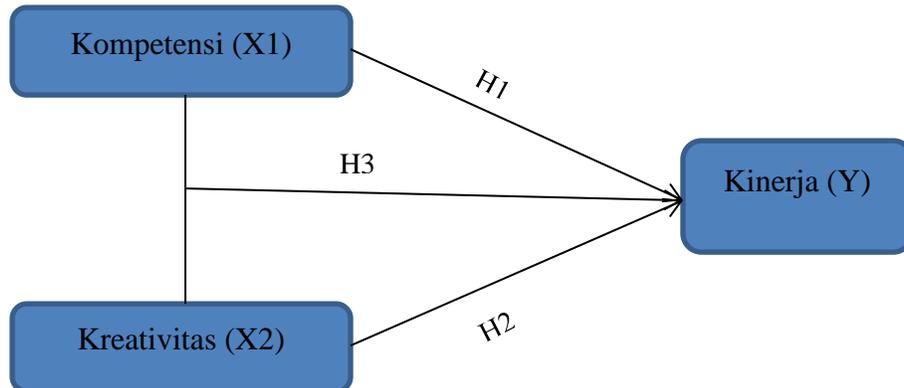
#### **H2: Creativity has a positive effect on performance**

#### *The Influence of Competency and Creativity on Performance*

Competence and Creativity influence performance; it is in line with the results of several previous studies (Wibowo, 2013; Muhti et al., 2017; Sari, 2017; Sugoyanto and Santoso, 2018; Dama & Ogi, 2018; Rompas et al., 2020)

#### **H3: Competence and Creativity Have a Positive Effect on Performance**

Based on the description above, the theoretical research framework is depicted in Figure below:



*Graph 1: Theoretical Framework*

### 3. RESEARCH METHODOLOGY

The method used is a quantitative descriptive method with an explanatory survey research design that explains the relationship between the research variables. This research data collection method uses a survey as primary data using a questionnaire containing written statements to obtain information from respondents. Secondary data is also used in data obtained from books and scientific journals related to competence, Creativity, and performance. This study's population was grade 1 teachers at the primary school level in 31 districts in Bandung Regency, amounting to 1408 schools (private and public). The questionnaire was created using google form and distributed via a link, then obtained 387 respondents.

The analysis model used is multiple linear regression analysis and the coefficient of determination. The use of this analysis aims to determine the effect of independent variables on the dependent variable, namely between Competence (X1) and Creativity (X2) on Performance (Y) with the following general equation:  $Y = \alpha + b_1X_1 + b_2X_2$ . The hypothesis testing method uses the t-test to show the independent variable's effect on the dependent variable individually and the F test to simultaneously determine the independent variable's impact.

### 4. RESULTS AND DISCUSSION

After the data is collected, normality, hypothesis, regression, and determination coefficient tests are carried out using the SPSS 24 application.

#### Normality test

The classical assumption test is carried out to ensure that the regression equation obtained will have accuracy; the classical assumption test used is the normality test. The normality test is carried out to find out whether the residuals got typically distributed or not. The normality test is used to determine the effect of independent / independent variables (Competence and Creativity) on the dependent variable (performance) through t and F tests, which will only be valid if the residuals we get have a normal distribution..

**Table 1: Normality Test**

		Unstandardized Residual
N		387
Normal Parameters <sup>b</sup>	Mean	.0000000
	Std. Deviation	1.86220988
Most Extreme Differences	Absolute	.139
	Positive	.100



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	Negative	-.139
Test Statistic		.139
Asymp. Sig. (2-tailed)		.200 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Output SPSS (author, 2020)

Based on table 1 above, it is known that the Asymp Sig. (2-tailed)  $0.200 > 0.05$ , it can be concluded that the data in this study were normally distributed, and the assumption of normality was fulfilled.

### Hypothesis testing

**Table 2: Partially Hypothesis test**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	6.308	.606		10.413	.000
	Kompetensi (X1)	.288	.047	.267	6.080	.000
	Kreativitas (X2)	.508	.037	.599	13.618	.000

a. Dependent Variable: Kinerja (Y)

Source: Output SPSS (author, 2020)

Based on table 2 above, the t value is 6,080 for the competency variable and 13.618 for the creativity variable. The t value for  $DF = 385 (n-2)$  with  $\alpha = 0.05$  is 1.649. The two independent variables have a calculated t value greater than the t table value, so H1 and H2 are accepted. This study's findings state that H1 is accepted, meaning that there is an effect of competence on performance. The result means that the findings obtained are inversely proportional to the findings (Narsih, 2017), the research findings are in line with the findings of previous studies conducted by: (Yulianti, 2011; Sopandi, 2019; Mutakin, 2013; Setyono & Sudjadi, 2011; Fitria, 2014; Tafqihan & Suryanto, 2014; Koswara & Rasto, 2016).

The second hypothesis (H2) is accepted, meaning that Creativity influences performance. This finding is in line with research conducted by (Sumiyati, 2007; Ekawati, 2020; Dama & Ogi, 2018; etc.) and contradicts the findings (Lakoy, 2015).

**Table 3: Simultaneously Hypothesis test**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2687.052	2	1343.526	385.419	.000 <sup>b</sup>
	Residual	1338.581	384	3.486		
	Total	4025.633	386			

a. Dependent Variable: Kinerja (Y)

b. Predictors: (Constant), Kreativitas (X2), Kompetensi (X1)

Source: Output SPSS (author, 2020)

Table 3 above shows a significance value of  $0.000 < 0.05$ , meaning that all independent variables (Competence and Creativity) simultaneously influence performance. In other words, the third hypothesis (H3) is accepted.

### Regression test and coefficient of determination

Regression analysis analyzes the relationship between the predicted variables and the variables that are believed to be statistically related to the forecast variables. Based on table 2 above, the regression equation  $Y = 6.308 + 0.288X1 + 0.508X2$  is obtained. The positive sign (+) shows the relationship



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between the variables running in one direction, which means that the higher the independent variables (competence and Creativity), the higher the teacher's performance.

### *The Influence of Competency on Performance*

**Table 4: Influence of Competency on Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712 <sup>a</sup>	.507	.506	2.271

a. Predictors: (Constant), Kompetensi (X1)

b. Dependent Variable: Kinerja (Y)

Source: Output SPSS (author, 2020)

Based on table 4, the coefficient of determination (adjusted R square) is 0.506. This value shows that the independent variable has an effect of 50.6% on the dependent variable. This result is in line with previous research, which concluded that there is a significant effect of competence on performance (Yulianti, 2011; Sopandi, 2019; Mutakin, 2013; Setyono & Sudjadi, 2011; Fitria, 2014; Tafqihan & Suryanto, 2014; Koswara & Rasto, 2016). the findings obtained are inversely proportional to the results of (Narsih, 2017). Competence has an essential and robust relationship with performance, individual performance, and organizational performance (Hakim, 2015). The result is also in line with experts who say that an individual's competence is inherent in him that can be used to predict his level of performance. Competence is closely related to performance, both individual performance and organizational performance.

### *The Influence of Creativity on Performance*

**Table 5: Influence of Creativity on Performance**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.797 <sup>a</sup>	.635	.635	1.952

a. Predictors: (Constant), Kreativitas (X2)

b. Dependent Variable: Kinerja (Y)

Source: Output SPSS (author, 2020)

Based on table 5, the coefficient of determination (adjusted R square) is 0.635. This value shows that the independent variable has an effect of 63.5% on the dependent variable. These results are in line with previous research, which concluded a significant impact of competence on performance (Sumiyati, 2007; Ekawati, 2020; Dama & Ogi, 2018; etc.) and contradicts the findings (Lakoy, 2015). The results above can be considered for policymakers in facilitating teachers to teach with all their Creativity because basically creative people have high curiosity and act more effectively. It is hoped that, with high teacher creativity, the teacher's performance will be better, which in turn will produce students as superior human resources. These findings provide empirical evidence that the higher the level of Creativity of a teacher, the higher the performance.

### *The Influence Competence and of Creativity on Performance*

**Table 6: Coefficient Determinant**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817 <sup>a</sup>	.667	.666	1.867

a. Predictors: (Constant), Kreativitas (X2), Kompetensi (X1)

b. Dependent Variable: Kinerja (Y)

Source: Output SPSS (author, 2020)



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Based on table 6, the coefficient of determination (adjusted R square) is 0.666. This value indicates that the independent variable affects 66.6% of the dependent variable, while the remaining 33.4% of the performance is influenced by other variables not examined in this study. This result is in line with previous research, which concluded that there is a significant influence of competence and Creativity on performance ((Wibowo, 2013; Muhti et al., 2017; Sari, 2017; Sugoyanto and Santoso, 2018; Dama & Ogi, 2018; Rompas et al., 2020) )

The result is also in line with the expert opinion, which states that an individual (in this case is a teacher) is inherent in him and can be used to predict his performance (Fitz-enz & Davison, 2011; Wibowo, 2014; Suswardji, 2012. At the time, In a pandemic like this time, with the obstruction of the learning process, which is usually carried out face-to-face, teachers' Creativity needs to be optimized to achieve learning goals and improve their performance. The result is in line with previous studies' conclusions and expert opinion that Creativity can improve employee performance.

### 5. CONCLUSION

Teacher performance is essential because teachers are at the forefront of creating superior human resources to advance the nation. Teacher performance in question includes work quality, work accuracy, work initiatives, job skills, and communication. Competence and Creativity has a positive and significant impact on grade 1 elementary school teachers' performance in Bandung Regency. Teacher performance will be higher if the value of each independent variable is increased, and vice versa. Teacher performance is strongly influenced by the two independent variables studied. For the researcher's suggestion, the teacher's competence should be further enhanced by optimizing information technology and being more creative in learning. Besides that, other variables can also be added to answer more comprehensively in predicting teacher performance.

### LIMITATION AND STUDY FORWARD

This study's limitation is based on the certainty of the independent variables in answering or predicting teacher performance. This study's competency and creativity variables cannot answer all grade 1 elementary school teachers' performance problems in Bandung regency. As for suggestions for further research, other variables can be added in predicting individual performance. Other variables added in further studies are motivation, organizational culture, communication, compensation, and others.

There have been many studies regarding the above variable suggestions in predicting performance. Individual performance is more influenced by internal factors such as experience, talent, nature, motivation, and commitment. Performance can also be affected by external factors, such as leadership, work systems, economic, political, social, cultural, and religious conditions. It is hoped that other variables can predict the level of performance of an individual more accurately, which will ultimately result in performance output following the organization's standards.

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## ANALYSIS OF THE EFFECTIVENESS AND PERFORMANCE OF THE REGIONAL GOVERNMENT ORGANIZATIONS BUDGET SOUTH SUMATRA PROVINCE

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### Abstract

This study aims to analyze the effect of accountability, supervision, transparency on the effectiveness of budget management and budget performance of OPD. Data analysis includes validity test of descriptive analysis, reliability test, and Linear Structural Relationship (Lisrel) Structural Equation Modeling (SEM). The sample used in this study is the state civil apparatus consisting of Regional Financial Management Officers (PPKD), Budget Users (PA), Budget User Proxy (KPA), Receiving Treasurers, Expenditure Treasurers. Based on the results of the calculation, it is proven that accountability, supervision and transparency partially have a positive and significant effect on the effectiveness of budget management with a value of  $R^2 = 51.1\%$ . Furthermore, the calculation of the two variables of accountability, transparency, supervision, budget effectiveness proved to have a positive and significant effect on OPD performance with a value of  $R^2 = 81.1\%$ . Judging from the contribution of each independent variable, the factor that needs to be considered in improving performance is transparency, where transparency can increase public trust. The conclusion of this research is to increase the effectiveness of the budget and the performance of OPD of the Regional Government of South Sumatra Province, it requires Accountability, Supervision and Transparency variables as well as the effectiveness of budget management.

**Keywords:** *Accountability, Transparency, Supervision, Budget Management Effectiveness, Performance.*

### 1. INTRODUCTION

As outlined in law regional autonomy by the new policy in Indonesia. The region's face, which has so far been highly dependent on the center, has turned into a decentralized development to realize equity, centered in Java. Apart from being a form of equitable development to support national policies, Law on financial balancing is the basis for fiscal decentralization, namely central transfers and regional income sources.

The existence of regional autonomy has brought logical consequences according to the community's wishes, namely government administration based on sound and correct financial practices (good governance). In carrying out the implementation of healthy practices, accountability, and transparency, budget management needs to be carried out, such as making an accountability report at the end of each activity as information to the people as holders of high sovereignty.

In budget management, the principles of accountability and transparency are an essential part of good government management. The use of a budget under its allocation provides an illustration of the implementation of regulations for the absorption of open and accountable budgets in the continuity of local governments and improving public welfare.



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Jensen & Meckling (1976), who initiated agency theory, there is an engagement between the principal and agent in the agency relationship in government between the executive and the legislature. In regional government, the agent or executive is the party that has the power of the government, while the principal is the party who delegates authority. It can be seen that here the legislature has higher power.

Based on this differentiation of functions, the executive conducts planning, implementation, and reporting of regional budgets, which is a manifestation of service to the public, while the legislature plays an active role in implementing legislation, budgeting and supervision. There is an unequal position between the executive and the legislature, in which the legislature has the highest powers. The legislature delegates authority to the regional head elects to dismiss if the regional head cannot carry out this authority as desired by the legislature.

The absorption of the provincial government budget that is not good in spending the regional revenue and expenditure budget (APBD (Swarnanews, 2020) is the cause of the slow absorption of the South Sumatra provincial government budget where high absorption at the end of the year should be avoided (<https://www.myedisi.com/>, 2020).

The low absorption of this budget reflects a problem in the organization of the regional apparatus, namely that it is still not optimal in managing the expenditure budget, which impacts the low level of consumption of regional government spending. Reduce the low absorption of the budget, necessary to see how to budget performance has been running to avoid budget distribution delays.

From the above phenomena, this study aims to determine the effect of accountability, transparency, and supervision with budget effectiveness as an intervening variable that has implications for the Regional Apparatus Organization of South Sumatra Province's budget performance. This study's results are expected to contribute to improving the management of the South Sumatra government budget.

## 2. LITERATURE REVIEW

### Agency Theory

According to Jensen & Meckling (1976), who initiated agency theory, there was a bond between the principal and the agent. This theory states that the agency describes the agreement of one or more people (principal) and orders the other party (agent) to carry out their orders and authority to the agent in carrying out the provisions that have been setting at the time of the agreement (principal). Eisenhardt (1989) explains in religious theory that the existence of a unique information system is offered, including outcome uncertainty, incentives, and risks. (Davis et al, 1997), In particular, the assumptions made in agency theory about individual utility motivations that result in head-agent interest divergences may not apply to all managers.

### Regulatory Theory

According to (Baldwin et al, 2012), regulation is a rule in government activities that can be identified and discreet. Meanwhile, (Bastian, 2017) regulation is a written method that must be implemented and obeyed to regulate, manage, and control an organization to realize a prosperous community life. Regulations are put forward as policy instruments that are compulsory instruments or mandatory instruments for implementation reference (Subarsono, 2006). Regulatory theory can improve welfare (Hertog, 2010)

### Accountability

According to (Cooper & Ijiri, 1984) "The obligation of an employee, agent, or other person to supply a satisfactory report, often periodic, of action or of failure to act following delegated authority".



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### **Transparency**

According to (Herman & Renz, 2016 ; Ball, 2009), Transparency involves collecting information and making it available and accessible for public scrutiny. On the other hand Transparency is an openness of the government to the public about all information related to the administration of government activities (Suharyono, 2019).

### **Supervision**

According to (Puadi, 2013) states that supervision is an activity that emphasizes the implementation of plans according to programs. The purpose of supervision is to optimize the work programmed to go according to plan. According to its nature, supervision into two things: Preventive Supervision and defective supervision.

### **Budget Management Effectiveness**

According to (Bastian, 2017), budget is a statement of estimates of future income and expenditure within a certain period, which is realized in financial form and is used by the organization as a controller and performance appraiser. The budget plays an essential role in government organizations because the government will use the expenditure budget to achieve all planned programs, both short and long term.

### **Government Performance**

Presidential Regulation (Perpres) Number 29 of 2014 states that performance is the output or output of a program successfully implemented with measured quantity and quality. According to (Otley 1999; Mahmudi, 2013), performance refers to a program related to work, which includes outputs for achievements.

### **Value for Money (VFM) Concept**

According to (Andrianto, 2007), the concept of Value for Money (VFM) states that there is money recognition. The VFM concept is essential in public institutions. This concept means that every single dollar spent must be used as best as possible.

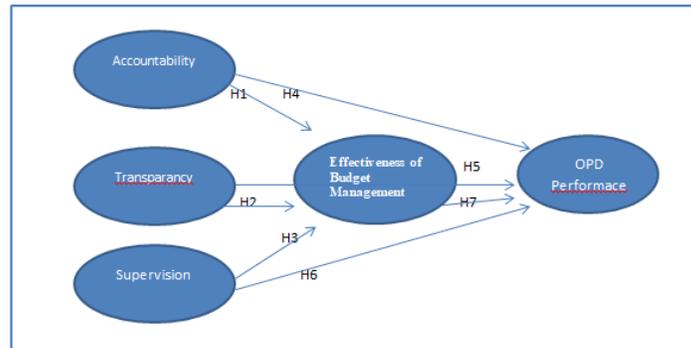
### **Conceptual framework**

According to (Dewi et al, 2015), good government performance can assess the process carried out, starting from the input, output to an outcome, which still refers to three aspects: economic, efficient, and useful. According to regulatory theory (Bastian, 2017), legal rules will help the government regulate, manage, and control organizations oriented to the public interest. So the regulations made are guidelines for the very stakeholders, namely the government as the budget manager under its objectives.

In applying the principles of accountability and transparency, the government needs a monitoring instrument to oversee the prepared budget's running. This condition is in line with the regulatory theory put forward by (Bastian, 2017) that the government needs legal rules to regulate or manage organizations for the realization of public welfare.

Minister of Home Affairs Regulation Number 21 of 2011 concerning Guidelines for Regional Financial Management states that if finances have been managed effectively under regulations, the community will benefit from this management. Effective budget management is essential in supporting government performance. (Rondonuwu et al, 2015) stated that an organization's program is considering successful if its output reaches the goal.

The four variables that form the basis of this research are the variables of accountability, transparency, supervision, and budget management effectiveness. Below is described the conceptual research design:



**Figure 1: conceptual Design**

### 3. RESEARCH METHODOLOGY

In this study, the variables studied included; accountability variables, transparency, supervision, budget management effectiveness, and service agencies' organizational performance. This research is in the form of quantitative with the confirmatory research approach with the hope of being able to provide an explanation of the tests carried out to prove the theory or hypothesis to strengthen or reject existing theories or research hypotheses.

#### Population and Sample

This study's population was 46 Regional Apparatus Organizations (OPD) in South Sumatra Provincial Government Service Organizations. The sample is the population's principal element studied and reflected the population (Nurlina et al, 2017). The approach uses purposive sampling, which is a way of determining the sample using specific considerations so that it deserves to be sampling. The sample stated civil servants (ASN) involved in regional financial management under (Government Regulation Number 12, 2019 concerning regional financial management. Regional Financial Management Officer (PPKD). Budget User (PA), Budget User Proxy (KPA), Treasurer of Revenue, Treasurer of Expenditure.

#### Data analysis

The data analysis used in this study was analyzed quantitatively through the multivariate method of the Structural Equation Model (SEM) technique using lisrel software. Simultaneously, the research instrument test consisted of a validity test, reliability test and classical assumption test, and SEM assumption test.

### 4. RESULTS AND DISCUSSION

#### Results of Structural Equation Modeling (SEM) Analysis

The data assumption test results show that there are no outliers based on the standard score or Z-score. The maximum Z-Score value is 3.04823, and the smallest minimum value is -3.90845, or there is no value  $\geq \pm 4.0$ . Assessment or evaluation of multicollinearity and singularity on data through the determinant value of the zero covariance matrix, the determinant value of the sample covariance matrix (Determinant of the sample covariance matrix) is obtained = 0.00000000001468. Because the value of the sample covariance matrix's Determinant matrix is still more excellent than 0, it can say that there is no multicollinearity or singularity in the research data used. The normality test results show that the data does not have a multivariate normal distribution, so that the estimation of the structural equation model in lisrel is carrying out using the Robust Maximum Likelihood Method.

The results of data processing for the full model SEM analysis are showing in Figures 1 and 2. The estimation of each indicator's factor loading value and the influence coefficient between research variables were carried out with Lisrel 8.8 software.

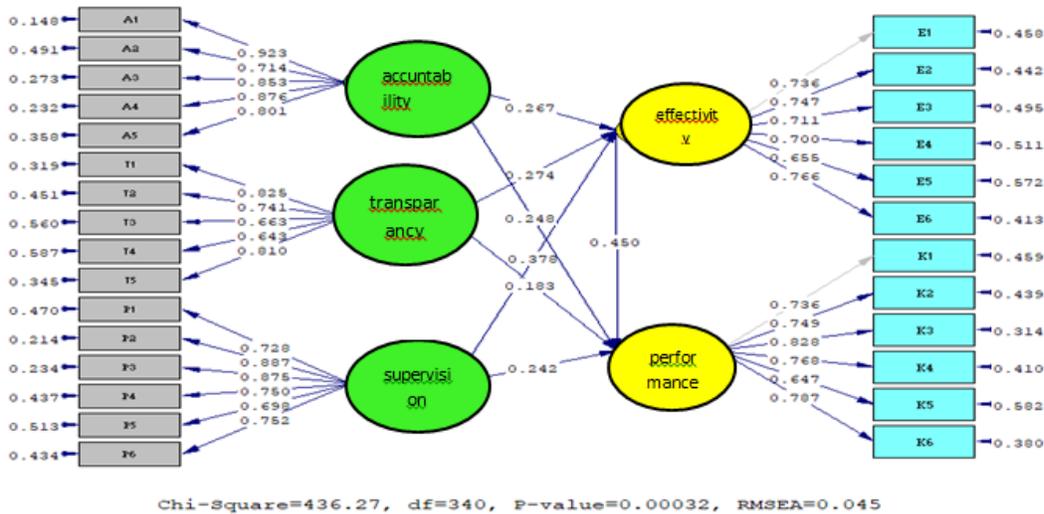


Figure 1: Estimated Value of Loading Factor Structural Model Influence of Research Variables

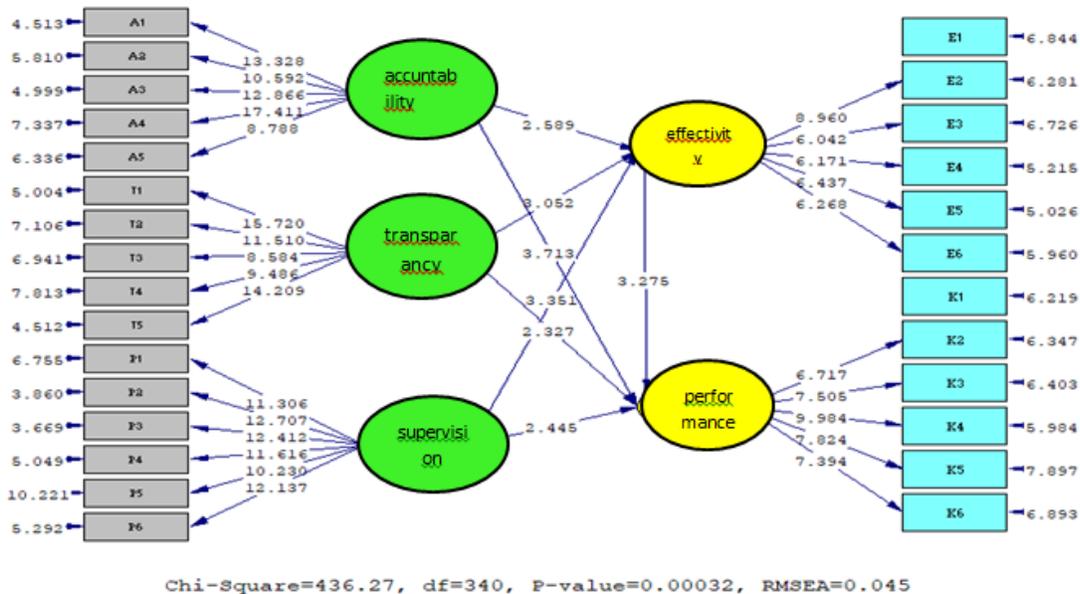


Figure 2: The t-value of the Structural Model Effect of Research Variables



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There are two structural equation models for the structure of the research model used:

### 1. Structural equation model on the effectiveness of budget management

The structural equation model for the effect of Accountability, Transparency, Supervision on the effectiveness of budget management is as follows:

$$\text{Effective} = 0.267 * \text{Accountabi} + 0.274 * \text{Transparent} + 0.378 * \text{Supervisor}, \text{Errorvar.} = 0.489$$
$$R^2 = 0.511$$

(0.103)	(0.0898)	(0.113)	(0.130)
2.589	3.052	3.351	3.762

The result of the coefficient of determination ( $R^2$ ) or the effect of accountability, transparency and supervision on the effectiveness of budget management is 0.511.

Based on the calculation results obtained, it can be seen that the coefficient of accountability influence ( $\xi_1$ ) affects the effectiveness of budget management ( $\eta_1$ ) of 0.267 with the t-value for the statistical test of 2.589. The coefficient of influence of transparency ( $\xi_2$ ) affects the effectiveness of budget management ( $\eta_1$ ) of 0.274 with the t-count value for statistical tests of 3.052. The supervision effect coefficient ( $\xi_3$ ) affects budget management ( $\eta_1$ ) of 0.378 with the t-value for statistical tests of 3.351.2. Structural equation models on OPD performance

The structural equation model for the influence of accountability, transparency, supervision and effectiveness of budget management on OPD performance is as follows:

$$\text{Performance} = 0.450 * \text{Effective} + 0.248 * \text{Accountabi} + 0.183 * \text{Transparent} + 0.242 * \text{Supervisor}, \text{Errorvar.} = 0.189, R^2 = 0.811$$

(0.137)	(0.0668)	(0.0786)	(0.0990)	(0.0673)
3.275	3.713	2.327	2.445	2.814

The coefficient of determination ( $R^2$ ) or the effect of accountability, transparency, supervision, and budget management effectiveness on OPD performance is 0.811.

The coefficient of influence of Accountability ( $\xi_1$ ) affects OPD performance ( $\eta_2$ ) of 0.248 with the t-value for statistical tests of 3.713. The coefficient of transparency ( $\xi_2$ ) affects OPD performance ( $\eta_2$ ) of 0.183 with the t-value for statistical tests of 2.327. The supervision effect coefficient ( $\xi_3$ ) affects OPD performance ( $\eta_2$ ) of 0.242, with the t-value for statistical tests of 2.445. The coefficient of influence on the effectiveness of budget management ( $\eta_1$ ) affects OPD performance ( $\eta_2$ ) of 0.450 with the t-value for statistical tests of 3.275.

### Overall Fit Model (Goodness of Fit Model)

The structural model is a model that states the causal relationship between the variables studied. The evaluation of the Overall Fit Model (Goodness of Fit Model) structural model assessed through the fit model size

### Research Hypothesis Testing

After the results of the evaluation of the model, it can be stated that the model meets the criteria for a suitable model (FIT), then testing the research hypothesis based on the t value of each causal relationship from the results of SEM processing as in table 1.



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**Table 1: Significance Test Results**

Variable	Coefficient	t-count	t-critical	Result
Accountability for the effectiveness of budget management	0,267	2,589	1,96	There is a significant effect
Transparency on the effectiveness of budget management	0,274	3,052	1,96	There is a significant effect
Supervision of the effectiveness of budget management	0,378	3,351	1,96	There is a significant effect
Accountability for OPD Performance	0,248	3,713	1,96	There is a significant effect
Transparency of OPD Performance	0,183	2,327	1,96	There is a significant effect
Oversight of OPD Performance	0,242	2,445	1,96	There is a significant effect
The effectiveness of budget management on OPD Performance	0,450	3,275	1,96	There is a significant effect

Source: Data processed from research results

### Discussion

#### Effect of Accountability on the Effectiveness of Budget Management

Based on the results of the calculation, the t count for Accountability is 2.589. The t-test statistic value obtained is where  $H_0$  rejected; t count is greater than t critical = 1.96. ( $t \text{ count} = 2.589 > 1.96$ ) then a decision can be taken to reject  $H_0$ . So it is concluded that Accountability affects the effectiveness of budget management.

Accountability's amount of influence can calculate by multiplying the coefficient value of the accountability path with the correlation value between the variable Accountability and effectiveness of budget management. From the calculation results for the variable Accountability ( $\xi_1$ ) on the effectiveness of budget management ( $\eta_1$ ), the path coefficient ( $\gamma_1$ ) is 0.267, and the correlation between the Accountability variable and the effectiveness of budget management is 0.535. Based on these data, the influence of accountability on the effectiveness of budget management is  $= 0.267 \times 0.535 = 0.144$  or 14.4%. So the amount of influence of Accountability on the effectiveness of budget management is 14.4%. The results of the above research show that Accountability influences the Effectiveness of Budget Management. The related to the theory of regulation which is assumed to improve social welfare by reducing a failure (Eklund & Lappi, 2018), while the agency theory of (Jensen & Meckling, 1976) explains An agreement between one or more persons (principal) regulates the other party (agent) on behalf of the principal. It authorizes the agent to make the best decisions for the principal. The existence of rules run by the government on work programs is to get the community's trust.

#### Effect of Transparency on the Effectiveness of Budget Management

The magnitude of Transparency's influence is calculating by multiplying the coefficient value of the Transparency path by the correlation value between the transparency variable and the effectiveness of budget management. From the calculation results for the variable Transparency ( $\xi_2$ ) on the effectiveness of budget management ( $\eta_1$ ), the path coefficient ( $\gamma_2$ ) is 0.274, and the correlation between the transparency variable and budget management effectiveness is 0.505. Based on these data, the influence of transparency on The effectiveness of budget management is  $= 0.274 \times 0.505 = 0.138$  or 13.8%. So the magnitude of the influence of Transparency on the effectiveness of budget management is 13.8%.



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The agency theory of (Nurrizkiana et al, 2017) states that two parties agree to carry out the engagement by having problems, namely information asymmetry, where the local government is the implementer of public services. Information disclosure can create Transparency and Accountability ((Nurdiawan,2010). Transparency in budget management is in line with Law Number 14 of 2008 concerning Openness of Public Information, which states that every public agency, both central and regional, is obliged to inform about its activities.

### **Effect of Supervision on the Effectiveness of Budget Management**

Based on the results of the calculation, the t count for Supervision is 3.351. The t-test statistic value obtained is in the area where  $H_0$  rejected; t count is greater than t critical = 1.96. ( $t \text{ count} = 3.351 > 1.96$ ) then a decision can be taken to reject  $H_0$ . So it is concluded that Supervision affects the effectiveness of budget management. The magnitude of the Supervision effect multiplies the supervisory path coefficient's value by the correlation value between the variables of Supervision and the effectiveness of budget management. From the calculation results for the variable of Supervision ( $\xi_3$ ) on the effectiveness of budget management ( $\eta_1$ ), the path coefficient ( $\gamma_3$ ) is 0.378, and the correlation between the Supervision variable and the effectiveness of budget management is 0.606.

Based on these data, the influence of supervision on the effectiveness of budget management is  $= 0.378 \times 0.606 = 0.229$  or 22.9%. So the magnitude of the influence of Supervision on the effectiveness of budget management is 22.9%. From the description above, the government needs regulations to ensure good services to the community under regulatory theory. The regulation is a rule that binds the power holders in carrying out the mandate they carry. It concluded that good and strict Supervision in carrying out activities would result in effective budget management.

### **Effect of Accountability on OPD Performance**

Based on the results of the calculation, the t value for Accountability is 3,713. The t-test statistic value obtained is in the area where  $H_0$  rejected; t count is greater than t critical = 1.96. ( $t \text{ count} = 3,713 > 1,96$ ) then a decision can be taken to reject  $H_0$ . So it is concluded that Accountability affects OPD performance.

The influence of Accountability can calculate by multiplying the coefficient value of the accountability pathway with the correlation value between the variable Accountability and OPD performance. From the calculation results for the variable Accountability ( $\xi_1$ ) on OPD performance ( $\eta$ ), it obtained a path coefficient ( $\gamma_1$ ) of 0.248, and the correlation between the Accountability variable and OPD performance is 0.633. Based on these data, the influence of Accountability on OPD Performance is  $= 0.248 \times 0.633 = 0.164$  or 16.4%. So the amount of influence of Accountability on OPD Performance is 16.4%.

According to (Papenfuf & Schaefer, 2010,Keay, 2017), and (Nurrizkiana et al., 2017), Good Accountability will provide information that state financial management has carried out in an accountable and accountable manner.

### **Effect of Transparency on OPD Performance**

Based on the calculation results, the t value for Transparency is 2.327. The t-test statistic value obtained is in the area where  $H_0$  rejected; t count is greater than t critical = 1.96. ( $t \text{ count} = 2.327 > 1.96$ ) then a decision can be taken to reject  $H_0$ . So it is concluded that Transparency affects OPD budget performance.

The magnitude of Transparency's influence can calculate by multiplying the value of the transparency path coefficient with the correlation value between the transparency variable and OPD performance. From the calculation results for the variable Transparency ( $\xi_2$ ) on OPD Budget Performance ( $\eta_2$ ), the path



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coefficient ( $\gamma_2$ ) is 0.183, and the correlation between the transparency variable and OPD performance is 0.583. Based on these data, the influence of transparency on OPD Budget Performance is  $= 0.183 \times 0.583 = 0.107$  or 10.7%. So the magnitude of the influence of Transparency on OPD Budget Performance is 10.7%.

The Transparency has an influence of 10.7% on OPD's performance, which means that if there is Transparency, the performance will also be better because a performance requires an assessment where this assessment outline with disclosures such as a budget realization report that has been done by the government. Regions, this report itself can be accessed freely by the public via the internet.

### **Effect of Supervision on OPD Budget Performance**

Based on the results of the calculation, the t count for Supervision is 2.445. The t-test statistic value obtained is in the area where  $H_0$  rejected; t count is greater than t critical = 1.96. ( $t \text{ count} = 2.445 > 1.96$ ) then a decision can be taken to reject  $H_0$ . So it is concluded that Supervision affects OPD Budget Performance.

The magnitude of the Supervision effect can calculate by multiplying the supervisory path coefficient's value by the correlation value between the variable of supervision and OPD performance. From the calculation results for the Supervision variable ( $\xi_3$ ) on OPD Performance ( $\eta_2$ ), the path coefficient ( $\gamma_3$ ) is 0.242, and the correlation of the Supervision variable with OPD Budget Performance is 0.700. Based on these data, the influence of supervision on OPD Budget Performance is  $= 0.242 \times 0.700 = 0.169$  or 16.9%. So the magnitude of the influence of Supervision on OPD Budget Performance is 16.9%. From this calculation, it can see that the effect of Supervision on performance is quite small, namely 16.9%, which means that the local government needs to improve Supervision. The application of Supervision to OPD can provide benefits so that the budget is carrying out properly. The regulatory theory explains that the government needs legal rules to regulate or manage organizations to realize public welfare (Bastian, 2017).

### **Effect of Budget Management Effectiveness on OPD Performance**

Budget management's influence effectiveness calculates by multiplying the path coefficient value of budget management's effectiveness with the correlation value between the variable budget management effectiveness and OPD Performance. From the calculation results for the variable budget management effectiveness ( $\eta_1$ ) on OPD Performance ( $\eta_2$ ) obtained a path coefficient ( $\eta_1$ ) of 0.450 and a variable correlation of effectiveness of budget management with OPD Budget Performance of 0.822. Based on these data, the influence of budget management effectiveness on OPD Performance is  $= 0.450 \times 0.822 = 0.370$  or 37.0%. So the magnitude of the influence of budget management's effectiveness on OPD Budget Performance is 37.0%. In agency theory, there is a relationship between two parties, namely the principal and the agent, wherein this theory management expects to maximize welfare by reducing various costs arising from monitoring and contracting ..

## **5. CONCLUSION**

Based on the calculation of the influence's magnitude, it proves that Accountability, Supervision, and Transparency have a positive and significant effect on the effectiveness of budget management with a value of  $R^2 = 0.48.9$  or 48.9%. Furthermore, the second structure of the calculation shows this study's results influence the variable Accountability, Supervision, Transparency, and Budget Effectiveness on OPD Budget Performance with a value of  $R^2 = 0.81.1$  or 81.1%. From the results of the above calculations, the transparency variable needs considering to increase the effectiveness of budget management as an intervening variable that is required as a variable to improve the OPD budget performance of the Regional Government of South Sumatra Province. In addition to enhancing budget performance, further researchers should add or replace other variables that can affect budget performance.



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## ANALYSIS AND DESIGN OF CUSTOMS E-AUDIT

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### Abstract

**Purpose:** This research aims to analyze and design a customs e-audit, which is expected to be a solution to the problems that exist in the customs audit work.

**Research Methodology:** This research uses a qualitative case study approach. Data collection techniques in this study were interviews and document analysis.

**Results:** The result of this study is a logical system design that includes Data Flow Diagrams, which are system process modeling, and Entity Relationship Diagrams that describe the system data modeling.

**Limitations:** This research was conducted using only the first four stages of the FAST Methodology: scope definition, problem analysis, requirements analysis, and logical design. So, the term design in this research is a logical system design.

**Contribution:** It is expected that these models can facilitate audit data collection and provide early notification to importers if there is a discrepancy with their customs declaration.

**Keywords:** *e-audit, customs audit, FAST, PIECES*

### 1. INTRODUCTION

At this time, massive technological developments have triggered government agencies to provide more effective and efficient services by implementing e-government. In addition to simplifying services, government agencies also implement e-government in carrying out their supervisory functions, one of which is the audit function. The government agency that has implemented e-government in conducting audits is the Supreme Audit Agency (Badan Pemeriksa Keuangan/BPK). The application of e-government in audit work at BPK is the implementation of an e-audit that emphasizes cooperation between government agencies to strengthen BPK's authority in carrying out audits and increase the effectiveness and efficiency of its audit implementation so that the role of BPK in controlling government financial transactions can increase (Zulkarnain, 2014). Cooperation between government agencies, in this case, is in terms of providing audit data by auditees to BPK in real-time so that BPK auditors can access the data from their offices (Fajar, 2014) as well as enabling data confirmation between agencies that have provided data to BPK (Zulkarnain, 2014). Audit data that has been provided and can be easily accessed by the auditor will undoubtedly facilitate the audit data collection process so that further auditors can immediately process the data.

The Directorate General of Taxes (Direktorat Jenderal Pajak/DJP) also uses the term e-audit in tax audits. E-audit at DJP emphasizes the existence of a special auditor, namely e-auditor, who has expertise in running Computer Assisted Audit Tools and Techniques (CAATT) to carry out tax audits (Darono & Ardianto, 2016). The emphasis of e-audit at DJP is implementing audits in which data processing is carried out with computer assistance. With the help of a computer, tax audits can be carried out more effectively and efficiently than manually auditing (Febrian, 2019).

It can be seen here that even though there are different points of view, the e-audit implemented by BPK and DJP both aims to make the audit implementation more effective and efficient. A more effective and efficient audit is essential in carrying out the supervisory function, mainly if the supervision is carried out to secure state finances. However, previous research related to the development or implementation of e-audit, which is a form of e-government in the supervisory function, is still limited to audits carried out by BPK and DJP. Meanwhile, research on the development or implementation of e-audit at the



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Directorate General of Customs and Excise (Direktorat Jenderal Bea dan Cukai/DJBC), which has functions that overlap with DJP, has not been found.

The intersection between the DJP and DJBC functions is the revenue collector function. To collect state revenue, DJBC provides facilities in the customs sector with ICT-based services. PDE Internet is a program developed by DJBC to facilitate data exchange between importers and DJBC through internet media so that services can be provided more effectively and efficiently (DJBC, 2019). With PDE Internet, importers can submit import customs declaration (Pemberitahuan Impor Barang/PIB) anywhere without the time and place constraints (Suryani et al., 2019). By using PDE Internet, it is easier and cheaper for importers to fulfill their customs obligations.

PIB is submitted by importers based on the self-assessment principle so that an examination is necessary to ensure its accuracy. The examination carried out on PIB can be in the form of customs inspection at the clearance stage and/or customs audit at the post-clearance stage (Indonesia, 2006). With the examination at these two stages, it is hoped that efforts to secure state revenue can be implemented optimally to realize the state revenue that should be received.

Apart from having a revenue collector function, DJBC also plays a role as a trade facilitator to provide trading activities facilities. One of the implementations of this role is implementing a policy of reducing the red lane in importing goods (Nurhidayati & Cahyani, 2020). The reduction in red lines means that customs checks at the clearance stage are reduced, further accelerating the customs clearance and dwelling time processes. Once again, this facility is confronted with the revenue collector function, which must be carried out by DJBC. To secure state revenue, an inspection of customs declarations must be carried out even though the goods have left the Customs Zone so that the inspection that can be attempted is a customs audit.

However, in contrast to the implementation of service functions that have implemented e-government, the supervisory function's implementation in the form of customs audits is still carried out manually. Requests for audit data are still carried out using physical letters, and data receipt is always using flash disk or e-mail media (personal communication with IHI, 21 August 2020). Data security is a point that needs to be considered in this condition. Another obstacle in requesting data is the length of time the auditee submits audit data. It is not uncommon for auditors to repeatedly visit the auditee and sometimes even have to wait next to the auditee to ensure that the auditee downloads or collects audit data (personal communication with DSI, 20 August 2020). So it can be seen here that in addition to the safety factor, manual data collection also shows a lack of efficiency in the implementation of tasks because the auditor's time should be used to carry out other work to speed up the completion of the audit.

The duration of collecting audit data will extend the time for completion of the audit. The customs audit must be completed within three months from the date of the assignment contained in the assignment letter (DJBC, 2017; Indonesia, 2011). However, the completion of customs audits from 2011 to 2017 can be completed by meeting these conditions is, on average, only around 22%, while around 78% is completed over three months (Adi & Wibowo, 2019). The long completion of the customs audit has further resulted in the inability of several types of findings to be collected in the Audit Result Report (LHA) to potentially lose state revenue (Mughtar & Utama, 2020). The long period for completing the audit shows the ineffective and inefficient implementation of customs audits, resulting in the less optimal implementation of the function of collecting state revenues.

The implementation of e-audit, as has been implemented by BPK and DJP, is expected to be a solution to the problem of effectiveness and efficiency in customs audits. So it is necessary to analyze the application of e-audit in customs audits. For this reason, this research was conducted to analyze the development of e-audits that can help solve problems in customs audit work. Furthermore, this research is expected to enrich research on the application of e-audit in the public sector, which is currently still limited.



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### 2. LITERATURE REVIEW

System development is generally triggered by problems that arise in the implementation of work. The system development process is a series of activities, methods, best practices, work results, and automated tools that are used by stakeholders to develop and maintain information systems and software (Whitten & Bentley, 2007). Stakeholders are essential subjects in system development because they clearly know the problems that interfere with their interests.

Basically, the definition of stakeholders are groups whose support is needed by an organization so that the organization can survive (Freeman, 2010). Stakeholders in the context of information systems are basically no different from the concept of stakeholders in an organization in general. Willcocks and Mason (1987) define the stakeholders of a computer system as people who will be significantly affected by or have a material interest in the nature and operation of the new computerized system (Mishra & Dwivedi, 2012). When discussing an information system, the party closest to the system is, of course, the system user. In addition, senior management and information system managers are also stakeholders of an information system. Concerning information systems, users emphasize more on the services that the system can provide. At the same time, senior management is more interested in costs, while information systems managers are in between and must be able to accommodate these different interests (Mishra & Dwivedi, 2012).

Each stakeholder's different interests need to be identified before developing an information system so that it is hoped that the system built can accommodate all existing interests. Yuthas and Dillard (1999) stated that engaging stakeholders more broadly and emotionally in the system development process allows them to receive more results from this system because when system users are involved in the development, the system will be more likely to meet better the needs and concerns of stakeholders (Mishra & Dwivedi, 2012). Thus in system development, input from stakeholders closest to the system is needed, including management, which includes senior management and information system managers, and system users.

Input from stakeholders in system development generally shows their satisfaction in using the current system or the old system. Satisfaction is formed through many situations resulting from an assessment of an object or performance so that individual needs or desires are met (Jiang et al., 2012). So, in simple terms, it can be said that a person can be said to be satisfied when he has got what he needs or wants. In the context of information systems, user satisfaction is the target of information system developers. The system is built with the characteristics that users want that lead to user satisfaction (Jiang et al., 2012). So that when user satisfaction is targeted, it is necessary to identify specific measures that can make users satisfied. Many studies in the field of information systems reveal measures of user satisfaction. Jiang et al. (2012) collected studies that analyzed user satisfaction with various measures. The measures mentioned in the study include performance, information quality, cost-benefit, control, security, efficiency, and service quality. This satisfaction measure is unquestionably an essential input in assessing a system.

In assessing something, one must determine the standard used to be the basis for comparison with the thing being assessed, likewise, in the context of assessing satisfaction. The comparison results showing the magnitude of the difference in a further away direction from the standard is an essential aspect of the discrepancy theory (Jiang et al., 2012). So, in the context of satisfaction, a satisfaction gap will occur when a person assesses the needs/wants that he gets far from the standards he uses as the basis for the assessment. The satisfaction gap experienced by stakeholders of this system can be an essential input in system development.

FAST (Framework for the Application of System Thinking) is an information system development method developed by Whitten and Bentley. FAST is a combination of best practices in system development that they find in commercial methodologies and reference methodologies (Whitten & Bentley, 2007). In the FAST method, the stages in identifying problems, opportunities, and obstacles that occur, as well as the needs needed to improve the existing system, are defined (Syahara et al.,



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2020). The FAST Methodology includes eight stages, namely scope definition, problem analysis, requirements analysis, logical design, decision analysis, physical design and integration, and construction and testing, and installation and delivery (Whitten & Bentley, 2007). Of the eight stages, only the first four stages will be used in this research.

The scope definition stage is the first stage in the FAST Methodology. At this stage, information is collected in the form of problems in the system through interviews to determine the project scope based on the PIECES framework (Syahara et al., 2020). James Wetherbe developed the PIECES framework, which is useful for classifying problems experienced by system stakeholders, namely system owners and system users (Whitten & Bentley, 2007). The PIECES framework includes six categories for improving a system, which includes: Performance, Information (and data), Economics, Control (and security), Efficiency, and Service (Whitten & Bentley, 2007). So, at this stage, recognizing problems in the existing system is carried out by grouping them based on the six components of the PIECES framework so that the scope of the required system development can be identified.

Problems that have been identified in the scope definition stage are analyzed in the second stage of FAST, namely problem analysis. In this case, the analysis of problems that often occur and solutions to problems are identified (Widyawati & Zuriati, 2016). This stage results are a report containing the problems, causes, effects, and benefits of the solution (Muchsan, 2017). The results will then become a reference for implementing the next stage, namely the requirements analysis stage.

This requirements analysis stage is carried out to identify the needs of system users. Analysts approach users to determine their needs or desires for the system being developed (Whitten & Bentley, 2007). It can be said that this is the most critical stage in system development. Errors in conducting needs analysis can make users dissatisfied with the new system, thus encouraging system changes, which require more money.

The fourth stage of FAST is the logical design stage. The logical design, in this case, is to change the requirements needed in the system into a system model that will be built later (Rizan et al., 2018). The system models that can be generated at this stage are the logical data model, the logical process model, and the logical interface model (Whitten & Bentley, 2007). These models will later become material in the physical design of the system, which is the next stage in the system development series.

Previous research on the development of e-audit in the public sector is still minimal. E-audit at the BPK can be defined as an audit method in which data collection is through a connected internet application so that the BPK auditors can access financial data and non-financial data in real-time from their offices (Fajar, 2014). This data has been agreed upon by the BPK and its client in the MoU, which includes the type of data, the date of data collection, and its designation (Cahyono & Siswantoro, 2016). The use of the MoU by the BPK in collecting is an innovative use of BPK's institutional strength to invite auditees to participate in the e-audit program and to increase the auditee's awareness of e-audit (Zulkarnain, 2014). Thus the auditee does not feel compelled to submit audit data as if the request for audit data is only based on the provisions regarding the auditee's obligation to submit audit data as stated in statutory provisions.

Periodically, this auditee submits data automatically using ICT (Zulkarnain, 2014). Before being saved to the database, data from auditees are transformed so that they can be compared and analyzed by computer programs automatically based on substantive testing procedures in the audit (Fajar, 2014). Through the e-audit portal, auditors can access data from the analysis results and can even obtain data processing results in the form of reports (Cahyono & Siswantoro, 2016). Thus, auditors can be more efficient in carrying out audit work when compared to examinations that include many stages in the audit process without computer assistance.

Apart from BPK, e-audit is also implemented at the DJP. The implementation of e-audit at DJP involves e-auditors who are part of the tax audit team who have unique expertise in carrying out computer-assisted audits (Darono & Ardianto, 2016). In conducting an audit, the audit team can carry out various techniques to be able to access the auditee's electronic data. On the other hand, auditees have an



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obligation to provide their personnel to help tax auditors access their electronic data. The data will then be processed by the audit team, which, of course, involves e-auditors, using DEA techniques using software such as ACL, IDEA, or Microsoft Excel (Febrian, 2018).

Almost similar to the e-audit carried out at the DJP, Darono & Ardianto (2016) stated that the German tax authorities also use DEA techniques in implementing tax audits. Nevertheless, not limited to DEA techniques, the German tax authorities also use other CAATT techniques for data obtained through direct access and indirect access. Meanwhile, regarding the standardization of data types, the German tax authority requires auditees to comply with the Grundsätze zum Datensugriff und zur Prüfbarkeit digitaler Unterlagen (GDPdU), which is the principle of data access and auditing of digital documents. In conclusion, in addition to conducting computer-assisted audits, the German tax authorities also make rules on audit data standards to facilitate audit work.

### 3. RESEARCH METHODOLOGY

The research strategy used in this research is a case study method in one unit of analysis. Yin (2015) states that the results of the case study are up-close and in-depth studies of certain complex phenomena in the real world. So it is hoped that in this study, a more detailed description of how the environment is in the implementation of customs audits in relation to the development of e-audits in customs audits is expected.

This study uses a qualitative research approach. There are five features of qualitative research that differentiate it from other research approaches.

1. Studying the meaning of people's lives, in their real-world roles;
2. Representing the views and perspectives of the people in a study;
3. Explicitly attending to and accounting for real-world contextual conditions;
4. Contributing insights from existing or new concepts that may help to explain social behavior and thinking; and
5. Acknowledging the potential relevance of multiple sources of evidence rather than relying on a single source alone.

(Yin, 2016)

By using a qualitative research approach, the data used in this study are not limited to numbers. By using a qualitative research approach, the data used in this study are not limited to numbers. Data in the form of numbers obtained in this study will be explored more in the explanation to the data source and/or confirmation to related parties by conducting interviews.

The data collected in a case study must be able to meet the objectives of a case study, namely, in-depth exposure and analysis (Merriam, 2010). Therefore, the data collected should be in the form of multiple source evidence (Yin, 2015) and detail so that it can describe the case being studied and provide answers to the research questions that have been determined.

In this study, two types of data were used, namely primary data and secondary data. Primary data obtained from research instruments in the form of interviews with system users and documentation obtained directly from the Directorate of Customs and Excise Audit. Meanwhile, secondary data is obtained from research instruments in the form of documentation, which includes related regulations as well as publications in the form of reports published by DJBC for the public.

Interviewing is the primary method used in this study. The discussion of the interview was directed to answer the research questions that had been prepared previously. Open-ended questions are used to make the interaction between the researcher and the respondent more relaxed and less rigid; respondents can answer questions with answers that are not limited to the answer to the question but also other things that are relevant to the questions presented by the researcher (Marvasti, 2010). For efficiency purposes, researchers conducted semi-structured interviews (Horton et al., 2007) using an interview guide but still allowed discussion with other topics that were deemed appropriate to the research objectives.



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The data that has been collected from various sources, as mentioned in the previous section, were analyzed by means of content analysis (Vourvachis & Woodward, 2015) by categorizing the data to be summarized and grouped. The transcribed results of interviews and data from the documentation were summarized and grouped according to themes.

Furthermore, the data that had been grouped were analyzed using the FAST Methodology. Data in the form of problems that exist in the implementation of the customs audit are grouped based on the PIECES framework so that a list of problems is generated and the scope is determined. These problems are then analyzed to produce a list of problems and related system improvement objectives. Data in the form of user requirements for the system are inventoried and analyzed, then juxtaposed with the aim of improving the system so that a list of system requirements is generated. This list then forms the basis for logical design so that in the end, process modeling and data modeling are generated.

### 4. RESULTS AND DISCUSSIONS

In this section, the results and discussions are described using the FAST Methodology, which includes scope definition,

**Table 1: Problem Statement**

No.	PIECES	Problems / Opportunities / Directions
1.	<i>Performance</i>	The completion of the audit is more than three months.
2.	<i>Performance</i>	The submission of audit data exceeds a period of seven working days.
3.	<i>Information (and Data)</i>	Use of different references in auditee recording with customs declaration.
4.	<i>Information (and Data)</i>	The auditors do not have access to customs data related to the company being audited.
5.	<i>Economics</i>	There is uncertainty in determining the cost of goods because the time lag between audits is too long.
6.	<i>Economics</i>	An increasing number of state revenues cannot be collected due to audit findings, including customs declarations that have exceeded the two-year period.
7.	<i>Control (and Security)</i>	The auditor did not provide a warning letter according to the stipulated time.
8.	<i>Control (and Security)</i>	Submission of audit data uses flash disk media or personal email so that there is a risk of data being lost or used by unauthorized parties.
9.	<i>Efficiency</i>	Auditors need to make data requests to the Directorate of Customs and Excise Information (Dit. IKC) in stages to obtain customs data.
10.	<i>Efficiency</i>	Auditors need to visit the auditee to obtain the requested data repeatedly.
11.	<i>Efficiency</i>	Confirmation of findings takes a long time because the auditee has to look for evidence to answer the confirmation.
12.	<i>Service</i>	The auditee answered many of the audit data processing results (findings) with data that had not been previously provided.

### Scope Definition

The scope is determined by identifying problems in the existing system (old system). The term problems, in this case, refer to problems, opportunities, and directives, which are the background of the need for system development. Problem data that has been collected in this study are grouped into six groups based on the size of user satisfaction contained in the Discrepancy Theory Models of Satisfaction and PIECES framework, namely Performance, Information and Data, Economics (Economics), Control and Security (Control and Security), Efficiency, and Service (Service) as can be seen in Table 1 above.



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## Problem Analysis

Based on the list of problems compiled above, the problems are analyzed using a cause-effect approach. The cause-effect analysis is done by exploring the existing problem by examining the things that cause it and the consequences caused by the problem. Furthermore, an improvement solution is prepared to overcome existing problems. Table 2 below is a cause-and-effect analysis and improvement solutions to current problems.

**Table 2: Cause-and-Effect Analysis and Improvement Solutions**

No.	Cause	Effect	Improvement Solutions
1.	The amount of audit data requested is enormous due to the long lag time between audits.	<ul style="list-style-type: none"> <li>- Auditee takes a long time to download/prepare the requested data.</li> <li>- audit data cannot be collected within seven working days.</li> <li>- Data processing is hampered and/or the resulting findings are unreliable.</li> <li>- the audit could not be completed within three months.</li> <li>- More and more state revenues that cannot be collected due to the expiration.</li> </ul>	Submit data periodically without waiting for a customs audit process.
2.	The time lag between audits is long.	The auditee has difficulty charging the audit bill into the cost of the goods concerned.	Independent monitoring on a regular basis and immediately deliver corrections to customs declaration without waiting for the customs audit process.
3.	A warning letter for late submission of data is not given within the specified time.	The auditee did not immediately complete the requested data and only tried to complete it after a warning letter was issued.	Create a reminder of the time limit for submitting audit data.
4.	The auditee uses a different reference from the reference used in the customs declaration.	Auditee must prepare additional data that can link company data with customs data.	The auditee uses the same references used in customs declarations.
5.	The auditors do not have access to data related to the auditee's customs activities in the internal system of DJBC.	Auditors need to make data requests in stages to the Dit. IKC.	Auditors get access to auditee data related to activities in the customs sector from Dit. IKC.
6.	Submission of audit data is carried out using a flash disk or personal e-mail.	There is a risk that data is lost or used by unauthorized parties.	Exchange of data through secure means with restricted access.

## Requirements Analysis

After obtaining an understanding of the problems in the running system, the next step is to analyze the system requirements to overcome existing problems. Based on the description of the problem analysis above, the customs e-audit system to be developed must have the following features:

1. allows importers to submit data periodically before conducting an audit,

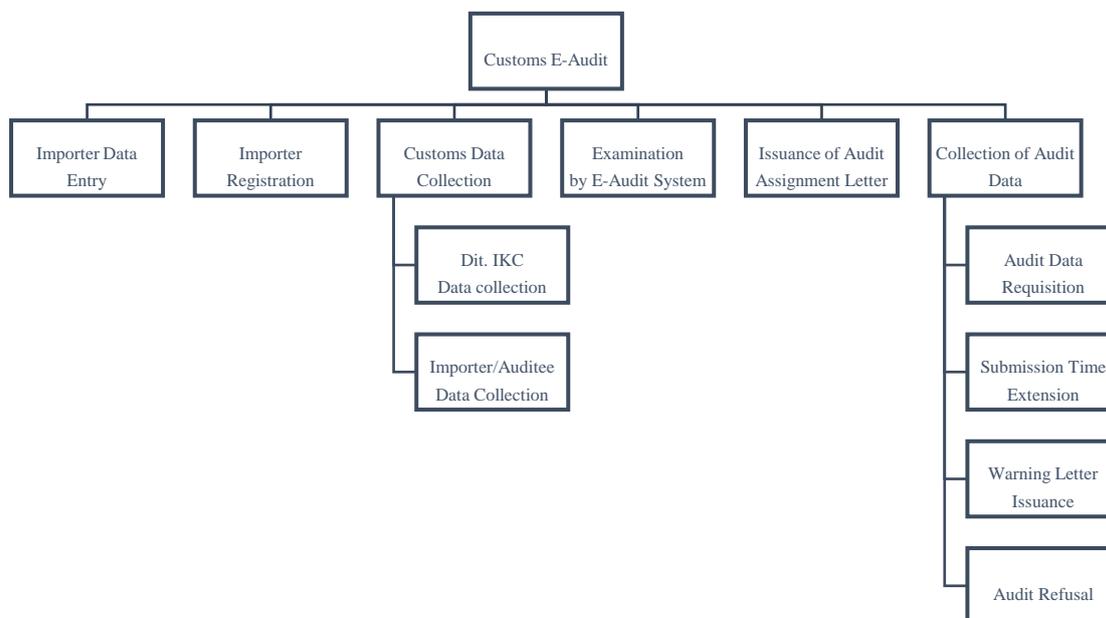
2. able to assist importers in checking the correctness of their customs declarations so that they can apply for corrections of customs declarations before there is an audit assignment,
3. able to provide notice to auditors and auditees regarding the deadline for submitting audit data,
4. requires supporting data from the auditee related to the transaction value of goods and the goods receipt report using a reference in the form of an invoice number as stated in the customs declaration,
5. presents auditee data related to activities in the customs sector to the assigned auditor, and
6. limit access to data/information in accordance with the authority of each user.

## Logical Design

At this stage, the system requirements, as mentioned above, are transformed into a system logical model. System modeling carried out in this study includes process modeling and data modeling. Process modeling is done using Data Flow Diagrams, while Entity Relationship Diagrams are used in data modeling.

### Process Modeling

Process modeling is performed to organize and document the flow of data in the system. Process modeling includes three stages of diagram preparation: Functional Decomposition Diagram, Context Data Flow Diagram, and Data Flow Diagram.



**Figure 1: Functional Decomposition Diagram (FDD) of the Customs E-Audit**

Functional Decomposition Diagram is structured to describe the processes that exist in the system so that it can be seen the scope of the customs e-audit system being developed. It can be seen in Figure 1 that in the e-audit system, there are six sequential processes. These processes are as follows: importer data entry, importer registration, customs data collection, which includes data collection from the Directorate of Customs and Excise Information (Direktorat Informasi Kepabeanan dan Cukai/Dit. IKC) and importers/auditee, examination by e-audit system, issuance of audit assignment letters, and collection of audit data. The audit data collection itself includes four processes: audit data requisition, submission time extension, warning letter issuance, and audit refusal.

The next step is preparing a Context Data Flow Diagram. Before compiling the Context DFD, identifying parties outside the system that directly interacts with the system by providing input and/or getting output from the system is carried out. External agents in this customs e-audit system are as shown in Table 3 below.

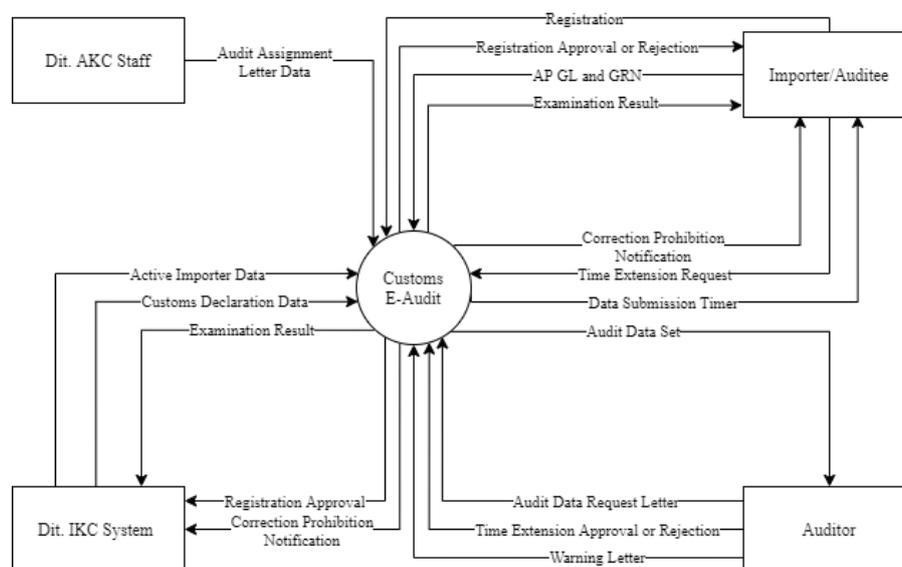
**Table 3: External Agents of the E-Audit System**

No.	External Agent	Role
1.	Auditor	The authorized party checks the conformity of customs declarations submitted by the importer/auditee based on the audit assignment letter
2.	Importer/Auditee	The party that submits customs declaration and proof of transaction in the form of AP GL and goods receipt note (GRN)
3.	Dit. AKC Staff	Authorized party to upload audit assignment letter data
4.	Dit. IKC System	System owned by Dit. IKC which has a customs declaration database

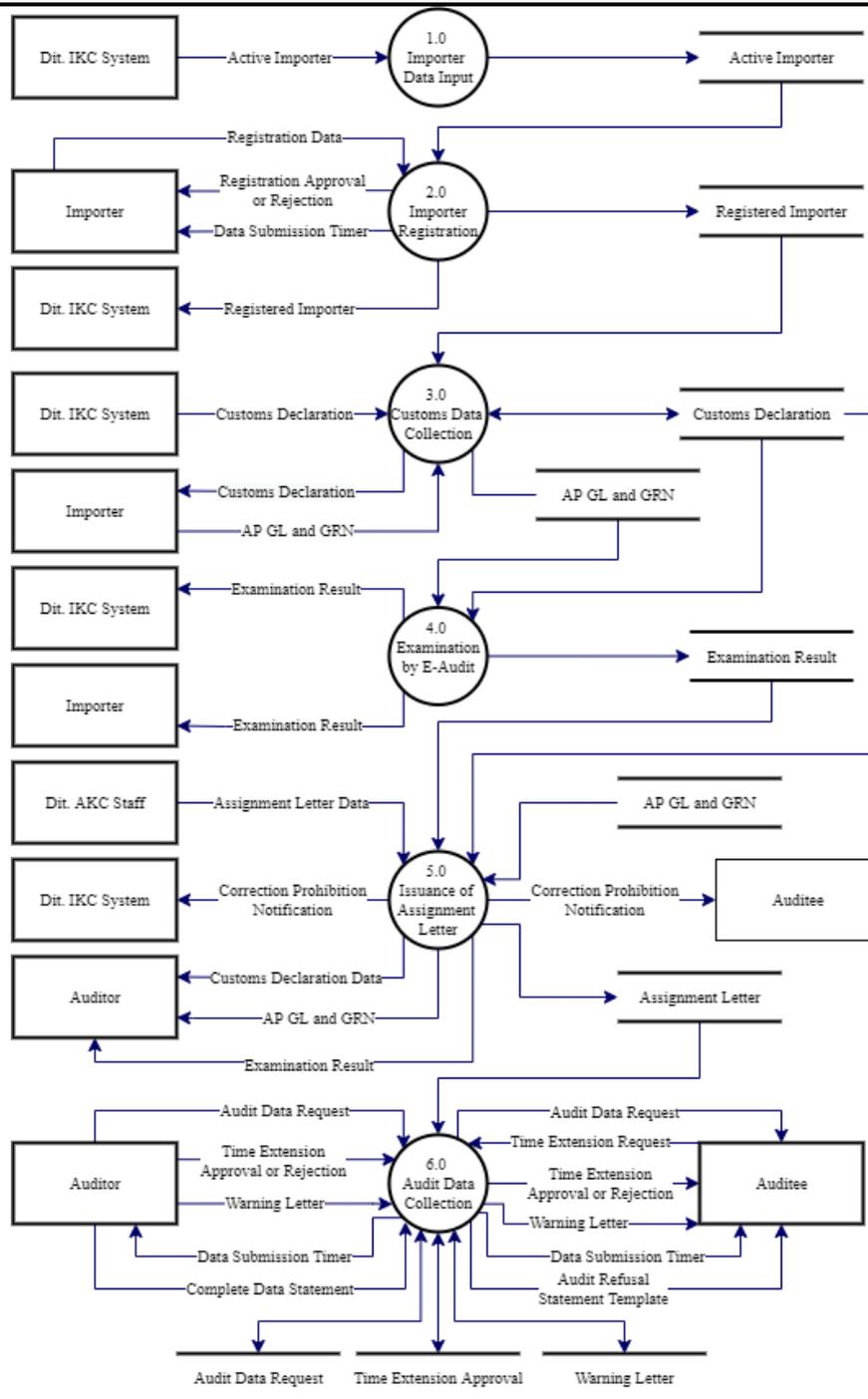
After identifying the external agent system, Context DFD is prepared to describe the relationship between the external agent and the e-audit system. Figure 2 shows the context of the e-audit system DFD, which shows the interaction between external agents and the e-audit system that involves data as system input and output. The interactions take place according to the processes identified in the Functional Decomposition Diagram.

After compiling the Context Data Flow Diagram, to clarify the existing process, a Data Flow Diagram was prepared. Customs e-audit system DFD that was first compiled is DFD Level 0. DFD Level 0 describes the process in e-audit as a whole. It can be seen in Figure 3, DFD Level 0 shows that there are six processes carried out in the customs e-audit system: Process 1.0 Data Importer Input, Process 2.0 Importer Registration, Process 3.0 Customs Data Collection, Process 4.0 Examination by the E-Audit, Process 5.0 Issuance of Assignment Letter, and Process 6.0 Audit Data Collection.

Process 1.0 Importer's Data Input is carried out by the Dit. IKC System by supplying data on importers who have been actively importing goods in the past year in real-time. The active importer data will be stored in the e-audit database as the basis for the e-audit user registration approval. Importers who will use the e-audit system register in the Process 2.0 Importer Registration. Importers register by entering importer data, which will then be checked for existence in the Active Importer database in the system. If the importer's data is in the Active Importer database, the importer will get a registration approval notification, and this importer's data will be stored in the Registered Importer database. The e-audit system will provide notification of data submission timers as a reminder of the due date for data submission. Conversely, if the importer's data is not in the Active Importer database, the importer will receive a notification of registration rejection.

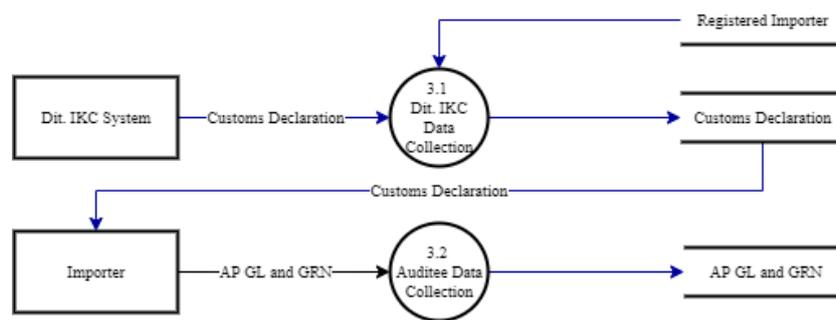


**Figure 2: Context Data Flow Diagram of the E-Audit System**



**Figure 3: DFD Level 0 Customs E-Audit**

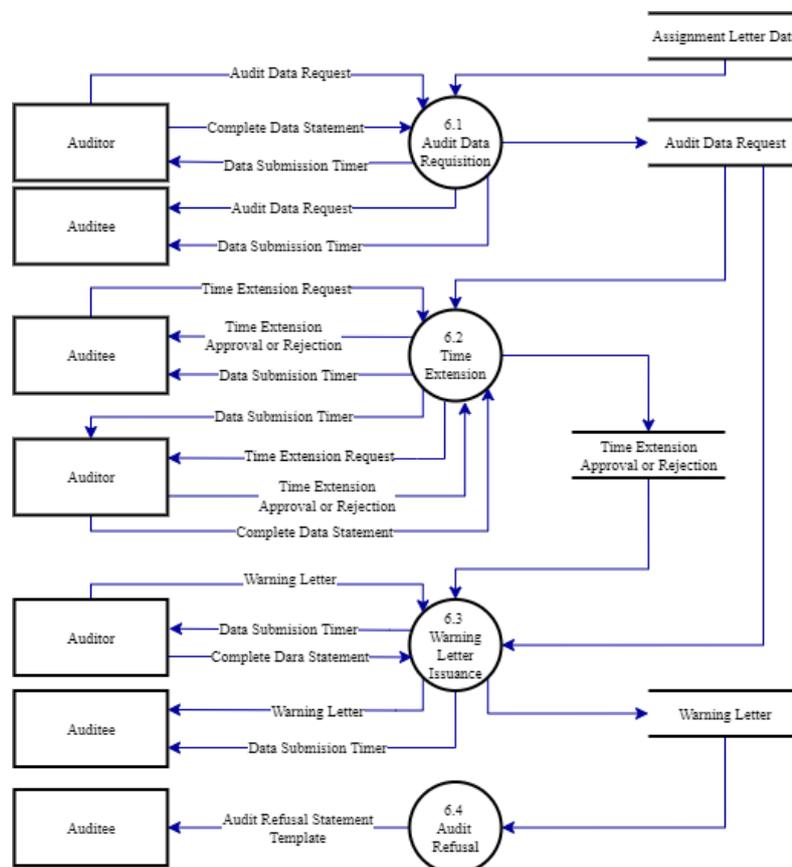
Process 3.0. Customs Data Collection includes two processes, namely the Process 3.1 Dit. IKC Data Collection and Process 3.2 Importer Data Collection. Details of these two processes can be seen in Figure 4, which is DFD Level 1 of the customs data collection process. Based on the Registered Importer database, Dit. IKC will supply customs declaration (CD) data in the form of PIB and CN into the e-audit system in real-time to then be saved into the Customs Declaration database. Meanwhile, registered importers will submit AP GL and GRN data according to CD data, which importers can see in the e-audit system. Data from the importer will be stored in the AP GL and GRN database.



**Figure 4: DFD Level 1 Customs Data Collection Process**

Customs declaration, AP GL, and GRN will be juxtaposed in the Process 4.0 Examination by the e-audit system. The result of this comparison is in the form of a conformity value between the two data. These results are stored in the Examination Result Data database and supplied to the Dit. IKC System and Importer. With this Examination Result data, the importer can carry out further inspection independently so that it can decide whether to correct the customs declaration or not, meanwhile, for Dit. IKC, this data can be submitted to the related unit so that it can be followed up in accordance with their respective duties and functions.

The Process 5.0 Issuance of Assignment Letter begins with an audit assignment. At the time, the audit assignment letter was published, the Dit. AKC Staff inputs audit assignment letter data into the e-audit system, including auditee/ importer data and auditor data. The data will trigger the customs e-audit to supply CD Data, AP GL and GRN, and Examination Result data to the auditors in charge. Besides, e-audit also provides correction prohibition notification to the Dit. IKC System and auditee.



**Figure 5: DFD Level 1 Audit Data Collection Process**



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After the ST is issued, auditors begin to collect audit data. Figure 5 shows the DFD Level 1 Audit Data Collection process. The Process 6.0 Audit Data Collection includes four processes: Process 6.1 Audit Data Requisition, Process 6.2 Data Submission Time Extension, Process 6.3 Warning Letters Issuance, and Process 6.4 Audit Refusal. When the auditor submits a letter requesting audit data, the e-audit will notify the auditee and the auditor with a data submission timer. If the auditor states that the data is complete, the e-audit will stop the data submission timer. The auditee can apply for an extension of the time to submit audit data before the due date. E-audit will reset the data submission timer according to the approval of the extension of the audit data submission time. If the auditee does not submit data by the specified time, the auditor will send a warning letter to the auditee. E-audit will provide notification of data submission timers based on the date in the warning letter. When the time for data submission has expired, and the auditee has not submitted the data, the e-audit will notify the auditee with an Audit Refusal Statement template.

### *Data Modeling*

Data modeling is carried out to meet the system requirements in database preparation. In this data modeling, an Entity Relationship Diagram is produced, which describes the relationship between the data owners involved in the system. Table 4 shows that the e-audit system entities include Registered Importers, Customs Declaration, Supporting Data for Customs Declaration, Examination Result Data, Assignments, Auditors, Audit Data Requests, Data Submission Extensions, and Warning Letters.

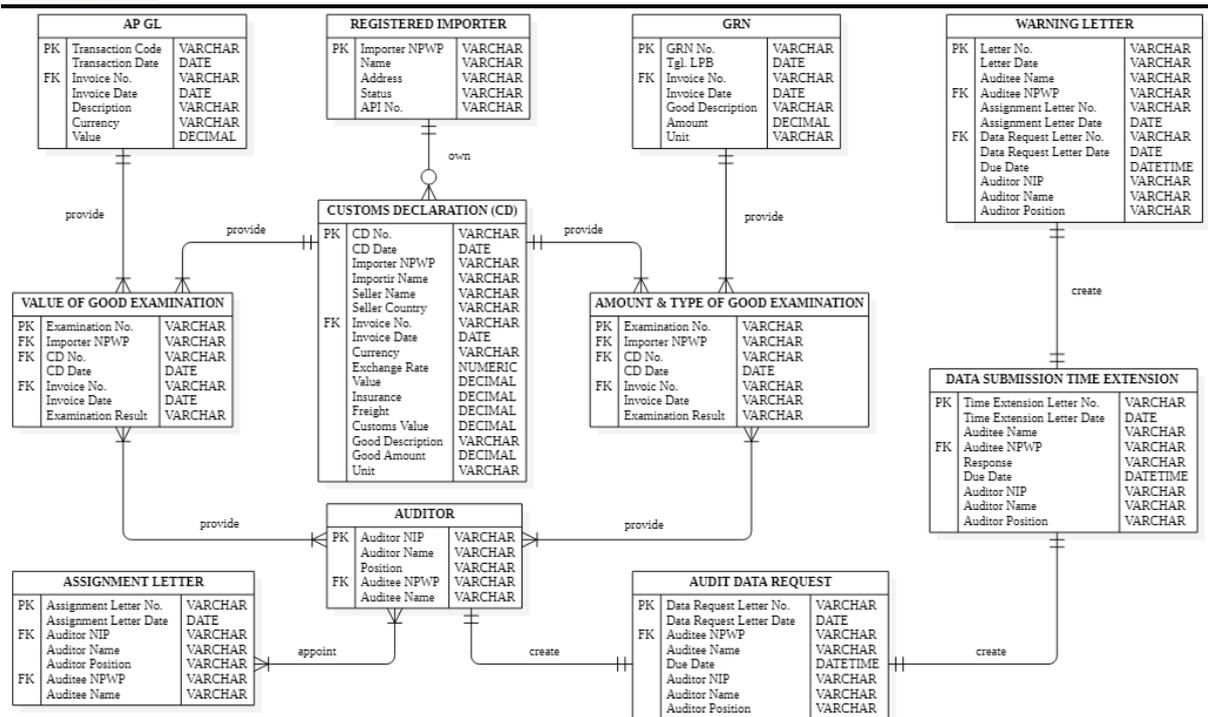
**Table 4: List of Entities of Customs E-Audit**

No.	Entity	Role
1.	Registered Importer	Importers registered as E-Audit users
2.	Customs Declaration	Import customs declaration data supplied by Dit. IKC System
3.	CD Supporting Data	
	a. AP GL	Auditee's account payable ledger data
	b. GRN	Auditee goods receipt note data
4.	Examination Result	
	a. Value of good	Data on the results of the examination of the value of goods presented by E-Audit
	b. Quantity & type of good	Data on the results of the examination of the quantity & types of goods presented by E-Audit
5.	Assignment Letter	Audit Assignment Letter Data
6.	Auditor	Customs and Excise officials assigned to carry out customs audits
7.	Request for Audit Data	Audit data request letter data prepared by the auditor
8.	Data Submission Time Extension	Data on the approval letter for the extension of submission of audit data prepared by the auditor
9.	Warning Letter	Data on warning letter for late submission of data prepared by the auditor

After identifying the entity, the next step is to prepare an ERD. It can be seen in Figure 6 that the entities in the e-audit system are interconnected. Each entity has a key (primary key/foreign key), which is the link between entities because the keys of each of these entities have unique characters. Each entity is equipped with attributes that describe the data content of each entity.

### **5. CONCLUSION**

Customs audit is one of the tools used by DJBC to check the accuracy of the customs declaration submitted by importers. Customs audits that are currently running are still carried out manually, which raises several problems ranging from performance, information, economy, security, efficiency, and service issues. To overcome this problem, an electronic-based system was developed that can assist the implementation of audits, which is called Customs E-Audit.



**Figure 6: Entity Relationship Diagram of Customs E-Audit**

The development of Customs E-Audit carried out in this study uses the first four stages of the FAST Methodology, namely defining the scope, problem analysis, needs analysis, and logical design. The final result of this Customs E-Audit system development process is a Data Flow Diagram, which is a logical model of the process, and an Entity Relationship Diagram, which is a logical data model.

Customs E-Audit can help auditors to be able to collect audit data more quickly because audit data has been collected regularly before the audit assignment, and at the audit data request stage, there is control over the time of data collection. Besides, Customs E-Audit can also make it easier for auditees to quickly find the non-conformity of customs declaration with their internal records.

### LIMITATION AND STUDY FORWARD

This study only uses the first four stages of the FAST Methodology in system development so that the design compiled is only a logical design. Meanwhile, the decision analysis, physical design, and integration, construction and testing, as well as installation and delivery phases, were not carried out in this study. Thus, further research on those four phases of FAST Methodology.

### ACKNOWLEDGEMENT

We want to thank the Directorate of Customs and Excise Audit, Directorate General of Customs and Excise, Ministry of Finance of the Republic of Indonesia for their willingness to be the analysis unit of this research. We would also like to thank the officials, auditors, and auditees who have taken their valuable time to provide the information we need.

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## ANALYSIS OF INDONESIAN LABOR REMITTANCE CONTRIBUTION ABROAD ON DEVICE RESERVES

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### Abstract

TKI who work abroad are often called foreign exchange heroes because of the remittances they send to Indonesia. This study aims to determine how much the contribution of Indonesian workers remittances to Indonesia's foreign exchange reserves during the period 2009-2018. The analytical method used in this research is cross tabulation (*crosstab*). The results of this study indicate that the average contribution of Indonesian workers remittances to foreign exchange reserves from the 1st quarter of 2009 to the 4th quarter of 2018 is 1.99%, meanwhile, if calculated within one year, the average contribution of Indonesian workers remittances to foreign exchange reserves from 2009 to with the year 2018 amounting to 7.65%. In addition, it is known that Indonesian workers remittances are the fifth largest contributor to foreign exchange reserves after oil and gas exports, coal exports, palm oil exports, and foreign exchange from foreign tourists

**Keywords:** *Remittances, Foreign Exchange Reserves, Indonesian Workers.*

### 1. INTRODUCTION

Remittance is a financial transfer mechanism phenomenon that is relatively new and promising for the growth and development of a country's economy. Who would have thought that through the transfer of human resources with the aim of working and earning a living abroad it would contribute to the economy of their home country by increasing foreign exchange reserves which are an indicator of a country's economic strength. Developing countries are still classified as Indonesia, India, the Philippines, Thailand and other Asian countries. Indonesia is the most labor-sending to overseas, this is evidenced by the 75% of the world's total remittance flows to developing countries. The amount of remittances that goes to developing countries each year has increased. In 1997, remittances received by developing countries were only US \$ 71 billion, then in 2007 it increased to US \$ 278 billion and in 2013 it almost doubled, namely US \$ 414 billion, this increasing trend continued until the end of 2018, where in that year, the remittances flowing to developing countries reached US \$ 528 billion.

Indonesia itself as a developing country and has the most populous - 4 in the world are very active in sending workers to work abroad, it is proved by the number of Indonesian workers are sent abroad to work in various sectors of activity, where The number of Indonesian workers who worked abroad reached 3.65 million people in 2018. Indonesian workers spread to various countries such as Malaysia, Hong Kong, Singapore, Saudi Arabia, America and European countries. The number of workers who work abroad make remittances they send to Indonesia is also fairly large, which According to data from the World Bank, Indonesia occupies position - fourth in the list of 10 countries in the world's largest remittance recipient.

The large amount of remittances sent by Indonesian workers who work abroad is actually able to boost the economy of their families and also the national economy as a whole, this is evidenced by research conducted by world banks which aims to see the impact of remittances sent by Indonesian workers. The study concluded that the remittances of Indonesian workers are able to reduce the poverty headcount in Indonesia by 26.7 percent and reduce the poverty gap by 55.3 percent. Migrant workers' remittances were also able to increase marginal expenditure on food consumption by 8.5 percent. So based on these findings, it can be said that the remittances of Indonesian workers have a significant statistical effect in reducing the poverty rate in Indonesia (Uddarajat, 2015: 3).

The Indonesian government has also committed to improving the quality of workers sent abroad, so that Indonesian workers who work abroad not only occupy jobs as laborers and household assistants,



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but they can get better jobs and positions with the quality of their *skills*. The seriousness of the government in taking advantage of opportunities from Indonesian workers abroad has succeeded in increasing the number of remittances of Indonesian migrant workers who have entered Indonesia in recent years, especially in 2018, to be clearer regarding the number of remittances for Indonesian workers in 2018 can be seen in Table 1.

**Table 1: Remittances of Indonesian Workers in 2018**

Quarter	TKI Remittances (USD billion)	Percentage Change
Quarter I	2.67	-
Second Quarter	2.84	6.06
Third Quarter	2.75	-3.04
Quarter IV	2.72	-1.20
<b>Total</b>	<b>10.97</b>	<b>-</b>

Source: *Indonesian Economic and Financial Statistics, Bank Indonesia 2019*

Based on Table 1, it can be seen that TKI remittances from various countries in 2018 and divided into 4 quarters. In the first quarter, the amount of remittances sent by Indonesian workers to Indonesia was US \$ 2.67 billion. In the second quarter, the amount of remittances sent by Indonesian workers increased by about 6.1 percent to US \$ 2.84 billion. The increase in remittances in the second quarter was due to the fact that there was Eid al-Fitr in that quarter, so that Indonesian Workers who worked abroad sent more and more money to their families, but after that the number of Indonesian Workers remittances entering Indonesia again decreased in the third quarter and fourth, where in the third quarter there was a decrease of about 3 percent, namely to become US \$ 2.75 billion and in the fourth quarter there was a decrease of about 1.2 percent, so that it became US \$ 2.72 billion. Overall, the amount of remittances for Indonesian workers who entered Indonesia in 2018 amounted to US \$ 10.97 billion, this value has increased by about 25 percent from the previous year. The large number of remittances from Indonesian migrant workers who entered Indonesia made them known as heroes of foreign exchange.

Foreign exchange reserves are very crucial, because they have various uses, such as to finance imports, pay foreign debts, and are also savings owned by the state. Indonesia's foreign exchange reserves in recent years have been relatively more stable compared to the period under 2000, especially during the 1998-1999 crisis period, because at that time Indonesia's foreign exchange reserves relied too much on *hot money* or investment funds which were only temporarily parked, so if suddenly investors take their funds abroad, there will be a significant decrease in the amount of foreign exchange reserves and of course it will have an impact on the resilience of the national economy. This incident does not happen again at this time, because the foreign exchange reserves currently owned by Indonesia are much larger than the crisis period, this is because there are many sectors that are able to contribute to foreign exchange reserves, such as exports, tourism, and of course remittances for Indonesian workers. for more details regarding the amount of Indonesia's foreign exchange reserves at this time or in 2018 can be seen in Table 2

**Table 2: Indonesia's Foreign Exchange Reserves in 2018**

Quarter	Foreign exchange reserves (USD billion)	Percentage Change
Quarter I	126.00	-
Second Quarter	119.84	-4.89
Third Quarter	114.85	-4.17
Quarter IV	120.65	5.06

Source: *Indonesian Economic and Financial Statistics, Bank Indonesia 2019*



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Based on Table 2, it can be seen that the value of Indonesia's foreign exchange reserves in four quarters in 2018, in the first quarter Indonesia's foreign exchange reserves amounted to US \$ 126 billion, then in the second quarter the amount of foreign exchange reserves decreased by 4.89 percent, namely to US \$ 119 , 84 billion, this was due to a current account deficit of US \$ 7.8 billion. Indonesia's foreign exchange reserves evaporated again in the third quarter of 2018, where the decline occurred around 4.17 percent, namely to US \$ 114.85 billion, again this was due to the growing current account deficit, reaching US \$ 8.5 billion. In the fourth quarter Indonesia's foreign exchange reserves finally increased, where the increase that occurred in the fourth quarter of 2018 was around 5.1 percent, namely to US \$ 120.65 billion, but this increase was not due to improvements or surpluses in the current account balance, but due to additional debt abroad that is carried out by the government.

The phenomenon of migrant workers' remittances described earlier is certainly very interesting, because with the hard-earned money they send to their homeland makes them known as heroes of Indonesia's foreign exchange, meanwhile on the other hand Indonesia's foreign exchange reserves also continue to fluctuate, this is the case. the background of this research is to analyze how much remittances actually contribute to Indonesia's foreign exchange reserves, so that they are worthy or not called heroes of foreign exchange.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### 1. Theory of Foreign Reserves

The foreign exchange reserves is often called the *international reserves and foreign currency liquidity (IRFCL)* or the official *reserve assets* are deposits of foreign currency by the central bank or monetary authority in this case the bank Ind o Eng , which can be used at any time in order to finance the imbalance in the balance of payments and in order to maintain monetary stability (Gandhi, 2006: 3) . The fluctuations that occur in foreign exchange reserves directly affect the stability of the rupiah exchange rate. The foreign exchange reserve formula is as follows:

$$Cdvt = (Cdvt 1 + Tbt + Tmt)$$

Cdvt : Foreign reserves for a certain year  
Cdvt 1 : Foreign reserves of the previous year  
Tbt : Current Account  
Tmt : Capital Transactions

#### a) Current Account

There are four components in the current account balance, namely, goods, services, primary income, and secondary income. Transactions in the goods post include exports and imports of general merchandise (oil and gas and non-oil and gas), non-monetary gold, and net exports of *marchanting* goods . Transactions in postal services include, export da n imports of manufacturing services, maintenance and repair services, transportation services, travel services, insurance services, financial services and others. Then the primary income account includes, receipts and payment of compensation for labor and investment income from direct investment, portfolio investment, and other investments. Secondary income transactions include, receipt and payment of current transfers by the government sector and other sectors, secondary income transactions of other sectors also include transfers from labor or labor remittances.

#### b) Capital Transactions

Capital transactions (*capital account*) in the form of transfer capital (capital transfers). Capital transfers include cash transfers related to the acquisition/sale of fixed assets by one or both of the transacting parties and *in kind* transfers *in the* form of transfer of ownership of fixed assets or forgiveness of liabilities given by creditors without compensation based on the agreement of both parties.



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## 2. Remittances

The term remittance according to Connell (1980: 16), was originally money or goods sent by migrant workers to their home areas. Then in its development, this understanding has expanded, where not only goods and money but ideas and skills are also included in the category of remittances for the region of origin. Because the skills acquired during immigration can be used when returning to their hometowns, such as good environmental management skills, housing building skills, and other skills that people in their home areas do not have. Another definition of remittance is put forward by Curson (1983: 14), according to Curson, remittances are the transfer of money, goods, and development ideas from the destination of migration to the area of origin and are an important instrument in the socio-economic life of the community. The definition of remittances for Indonesian workers according to Nizar (2014: 3) is the transfer of money or goods from Indonesian migrant workers who work abroad to their families in Indonesia. Indonesian workers are referred to as migrant workers because they work beyond national borders. Indonesian workers' remittances include cash and non-cash transfers, cash transfers can be in the form of money sent through formal channels such as banks (BNI, BRI, MANDIRI) available in countries where Indonesian workers, formal channels can also be in the form of local non-bank remittance institutions. Meanwhile, delivery through non-formal channels can be in the form of shop stalls and custody through other Indonesian workers who are returning to Indonesia.

### *Types of Remittances*

The International Monetary Fund (IMF) divides remittances into three categories, including the following:

1. Worker remittances or transfers in the form of cash (*cash*) and the like from foreign workers to their family or relatives in their home country.
2. Salary, remuneration, and compensation for work in cash (*cash*) or the like paid to individuals who work in other countries, where the existence of this individual or worker is legal or legal.
3. Money transfers made by foreigners which refer to transfers of financial assets and transfers of capital made by foreigners as a form of moving that person from one country to another and living for more than one year.

### **Previous Research**

Various empirical studies have tried to examine the relationship or effect of labor remittances on the foreign exchange reserves of a country. One of them is a study conducted by Alvara (2015), with the title of the study of the causes of the low remittances of Indonesian migrant workers in the Asia Pacific region (Malaysia, Hongkong, and Taiwan). This study uses primary data with a questionnaire method and direct interviews to migrant workers who work in Malaysia, Hongkong, and Taiwan. This study found that the majority of Indonesian workers used their salaries to send remittances as much as 37.6 percent, for savings as much as 22.9 percent and for daily needs as much as 24.4 percent. In general, the main objectives of migrant workers in sending remittances to their families are for family daily needs and education costs. Meanwhile, the research conducted by Jounghyeon (2012) conducted research on remittances and currency crises in developing countries which are classified as *emerging market countries*, such as Indonesia, India, Thailand, South Korea, Brazil and others. This research was conducted during the crisis period, especially in 1997, the results of this study concluded that remittances had a significant and positive effect on foreign exchange reserves and had a significant and negative effect on the exchange rate during the crisis, meaning that remittances would appreciate the exchange rate through an increase in foreign exchange reserves. Thus, these findings indicate that remittances play an important role in maintaining financial stability from the current crisis pressure.

## **3. RESEARCH METHODOLOGY**

### **1. The scope of research**

This study uses the state of Indonesia as the object of analysis. The variables used are the dependent variable as the affected variable and the independent variable as the influencing variable. Meanwhile,



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for the period of data used to conduct this research, namely using quarterly data, from quarter 1 2009 to quarter 4 2018 with a total of 40 observations.

### 2. Types and Sources of Data

The data used in this study are secondary data. Secondary data in this study in the form of time series data (time series) that is data of worker remittances and foreign exchange reserves in the form of dollar America States in the capture of economic statistics and financial reports of Indonesia, which was published by Bank Indonesia.

### 3. Analysis Technique

This research uses quantitative descriptive analysis techniques which are carried out by describing the phenomena that occur in each research variable and processing the research variable data so that it can explain the relationships that occur and answer questions from existing phenomena. The quantitative descriptive analysis technique in this research uses the cross tabulation method (*crosstab*). The cross tabulation method is a method that is fairly simple, but has a high enough ability to explain the relationship between variables (Sudjana, 2005: 68). Cross tabulation in this study uses *Microsoft Excel*. The calculation formula to determine the amount of remittance contributions of Indonesian labor migrants to foreign exchange reserves is as follows:

$$\text{Contribution } Q_n = \frac{\text{Remittances TKI } Q_n}{\text{Foreign Reserves } Q_n} \times 100$$
$$\text{Contribution } T_n = \frac{\text{Remittances TKI } T_n}{\text{Foreign Reserves } T_n} \times 100$$

Information :

Contribution  $Q_n$  and  $T_n$  = Contribution of remittances to foreign exchange reserves in quarter  $n$  and year  $n$

Remittances of TKI  $Q_n$  and  $T_n$  = Remittances of TKI in quarter  $n$  and year  $n$

Foreign Reserves  $Q_n$  and  $T_n$  = Reserves in quarter  $n$  and year  $n$

## 4. RESULTS AND DISCUSSIONS

### 1. Indonesian Workers' Remittances

According to World Bank data, Indonesia is included in the list of the top ten recipients of the highest labor remittances in the world. More details regarding the flow of TKI remittances can be seen in Table 3.

Based on Table 3, it can be seen that the development of Indonesian workers' remittances in the last 10 years. In 2009, the total flow of remittances from Indonesian labor migrants to Indonesia reached US \$ 6.62 billion, with the largest inflow of remittances occurring in the fourth quarter, amounting to US \$ 1.71 billion. Indonesian migrant workers who worked in Malaysia and Saudi Arabia were the biggest senders of remittances in 2009, where the amount of remittances sent by Indonesian migrant workers from Malaysia reached US \$ 2.59 billion or around 39 percent of the total remittances of Indonesian workers in 2009. Meanwhile, remittances sent from Indonesian Workers in Saudi Arabia amounted to US \$ 2.21 billion or about 33 percent of the total remittances of Indonesian labor migrants who entered Indonesia in 2009.

After experiencing an increase in the period 2009-2015, the flow of remittances for Indonesian workers entering Indonesia in 2016 experienced a decline, where remittances for Indonesian workers in 2016 decreased by about 8 percent from the previous period, namely to US \$ 8.67 billion. The decline in the inflow of remittances in 2016 occurred in all quarters, where in the fourth quarter it experienced the worst decline, which was around 4.9 percent compared to the previous quarter. The decrease in the number of remittance inflows in 2016 was due to the Moratorium policy or the suspension of sending Indonesian workers to countries in the Middle East by the Indonesian Minister of Manpower. After experiencing a decline in 2016, the remittance flow of Indonesian migrant workers to Indonesia increased again in 2017 and 2018, where in 2018 there was a significant increase



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in the inflow of Indonesian migrant workers' remittances, which was around 25 percent compared to the previous period or to US \$ 10.97. billion.

**Table 4: Development of Indonesian Migrant Workers' Remittances for 2009-2018 (US \$ Billion)**

Period Year / Quarter	TKI Remittances (US \$ Billion)	Percentage Change	Period Year / Quarter	Indonesian Workes Remittances (US \$ Billion)	Percentage Change	
2009	Q1	1.57	2014	Q1	1.90	2.6
	Q2	1.66		Q2	2.20	15.4
	Q3	1.68		Q3	2.11	-3.7
	Q4	1.71		Q4	2.14	1.0
2010	Q1	1.66	2015	Q1	2.34	9.4
	Q2	1.68		Q2	2.39	2.3
	Q3	1.71		Q3	2.36	-1.5
	Q4	1.69		Q4	2.34	-0.8
2011	Q1	1.67	2016	Q1	2.27	-3.0
	Q2	1.68		Q2	2.23	-1.8
	Q3	1.71		Q3	2.14	-3.8
	Q4	1.69		Q4	2.04	-4.9
2012	Q1	1.73	2017	Q1	2.18	6.8
	Q2	1.73		Q2	2.19	0.5
	Q3	1.74		Q3	2.20	0.5
	Q4	1.82		Q4	2.22	1.1
2013	Q1	1.86	2018	Q1	2.67	20.3
	Q2	1.87		Q2	2.84	6.1
	Q3	1.84		Q3	2.75	-3.0
	Q4	1.85		Q4	2.72	-1.2

Source: Indonesian Economic and Financial Statistics, Bank Indonesia 2019

## 2. Placement of Indonesian Workers Abroad

### a) Placement of Indonesian Migrant Workers by Gender

According to data from BNP2TKI, based on the sex of the average Indonesian Workes who go to work abroad every year is dominated by women, to be more clear it can be seen in Figure 1.

Based on Figure 1, it can be seen that the development of Indonesian workforce placement based on gender in the last 5 years. In 2014, as many as 186 thousand men and 244 thousand women were sent to work abroad, with a proportion of 57 percent women and 43 percent men of the total Indonesian Workes who went to work abroad in 2014. In 2015 and 2016 the number of Indonesian Workes Men and women who went to work abroad experienced a decline of about 15 percent, this decrease was caused by the Moratorium or the postponement of sending Indonesian Workes to countries in the Middle East by the Indonesian Minister of Manpower. In 2017, the number of male Indonesian Workes who went to work abroad still decreased by around 12 percent, however, for female Indonesian Workes who went to work abroad, it increased by 27 percent from the previous period. In

2018 the number of male and female Indonesian Workes who went abroad to work has increased from the previous period, but the increase that occurred was not too large, due to the enactment of the Moratorium on sending Indonesian Workes abroad.



Source: Data on the Placement and Protection of PMI, BNP2TKI 2018: Page 2

**Figure 1: Placement of Indonesian Migrant Workers by Gender 2014-2018 (Thousands of People)**

### b) Placement of Indonesian Work's based on education level

**Table 4 Placement of Indonesian Migrant Workers Based on Education Level 2014-2018 (Thousands of people)**

Year	Level of education				
	Bachelor	Diploma	High school / high school	Junior High	SD
2014	4,135	17,355	106,831	162,731	138,822
2015	1,625	4,685	70,309	108,725	90,393
2016	1,204	2,976	69,931	95,945	64,395
2017	1,322	4,060	70,185	85,545	101,787
2018	1,246	3,081	80,280	101,824	97,209
Total	9,532	32,157	397,536	554,770	492,606

Source: PMI Placement and Protection Data, BNP2TKI 2018: Page 3

Based on Table 4, it can be seen that the number of Indonesian Workes placements abroad based on the level of education in the last 5 years. Indonesian Workes who work abroad is dominated by workers who only have a relatively low education. During 2004-2018 the number of Indonesian Workes who studied up to undergraduate level was 9,532 people. Meanwhile, the number of Indonesian Workes sent abroad with diploma graduates is more than undergraduate graduates, but similarly to Indonesian Workes with bachelor's degrees, Indonesian Workes with diploma graduates who are sent abroad has decreased from 2014, where in 2014 there were 17,355 Indonesian workes who had diploma graduates sent abroad. country, but this number continues to decrease, until 2018 the number of Indonesian Workes with diploma graduates was only 3,081 people. The total number of TKI who have diploma graduates sent abroad to work in the last 5 years is 32,157 people.



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Indonesian Workers who graduated from high school, junior high school and elementary school was the largest number in the last 5 years. In 2014 Indonesian Workers who graduated from high school who were sent abroad to work totaled 106,831 people, Indonesian Workers who graduated from SMP amounted to 162,731 people, and Indonesian Workers who graduated from SD was 138.82, but just like Indonesian Workers with undergraduate and diploma education, in 2018 the number of Indonesian Workers who were sent abroad State, both high school, junior high school and elementary school graduates experienced a decline, where Indonesian Workers who graduated from high school who were sent decreased by about 25 percent or to 80,280 people, Indonesian workers who graduated from junior high school who were sent decreased by around 37 percent or to 101,824 people and Indonesian Workers who graduated from SD sent abroad decreased by about 30 percent or to 97,209 people. Overall, the migrant workers who study up to junior high school are the largest number sent abroad to work in various countries.

### c) Placement of Indonesian Migrant Workers based on Indonesian Business Fields

**Table 5: Placement of Indonesian Migrant Workers Based on KLUI, 2014-2018 (Person)**

Business Sector	Year				
	2014	2015	2016	2017	2018
Community, Social, and Individual Services	221,907	151,065	126,846	153,807	167,649
Agriculture, Animal Husbandry, Forestry, Hunting and Fisheries	746.39	48,275	35,351	35,487	35,709
Processing industry	60,630	48,824	53,641	50,679	56,884
Building	22,662	14,281	9,439	9,047	10,552
Cruise ship	19,355	2,818	0	302	339
Transportation and Communications	13,444	1,459	695	607	446
Wholesale, Retail and Home Trade Dining and Hotel	11,920	6,294	6,823	6,858	5,323
Mining and excavation	1,600	491	167	440	388
Electricity, Gas and Water	1,008	257	126	475	399
Finance, insurance, building and land rental business	4.85	292	157	122	179
Health	0	0	0	102	507
Information Technology	0	0	0	35	236
Activities with unclear boundaries	2,224	1,681	1,206	4,938	5,029
<b>Total</b>	<b>429,874</b>	<b>275,737</b>	<b>234,451</b>	<b>262,899</b>	<b>283,640</b>

Source: PMI Placement and Protection Data, BNP2TKI 2018: Page 8

Based on Table 5, it can be seen that the number of Indonesian Workers placement based on the Indonesian business field group (KLUI). The community, social, and individual service sectors are the business sector sectors that are mostly engaged in by Indonesian Workers who work abroad, where in 2018 the Indonesian Workers who worked in this sector reached more than 167 thousand people, the social, social, and individual service sectors as well. Indonesian Workers has been the most involved in the business sector during the 2014 to 2018 period. The processing industry business sector is also relatively much in the field of work by Indonesian Workers, where in 2018 there were more than 56 thousand workers in this sector. Indonesian Workers who work abroad on average only occupy low-class positions, such as Indonesian Workers who work in the social services sector, they only work as household assistants, as well as Indonesian Workers who work in the processing industry, most of them only work as industrial hunters. The low level of education and *skills* possessed by



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migrant workers makes them complacent in occupying jobs and positions where the salaries are not too high.

### d) Placement of Indonesian Migrant Workers by Destination Country

**Table 6: Placement of Indonesian Migrant Workers by Destination Country 2014-2018 (Person)**

Country	Year				
	2014	2015	2016	2017	2018
Malaysia	127,870	97,748	87,623	88,991	90,671
Taiwan	82,665	75,304	77,087	62,823	72,373
Hong Kong	35,050	15,322	14,434	69,182	73,917
Singapore	31,680	20,895	17,700	13,379	18,324
Saudi Arabia	44,325	23,000	13,538	6,471	5,894
Brunei Darussalam	11,616	9,993	8,152	6,623	5,707
South Korea	11,849	5,501	5,912	3,728	6,905
UAE	17,963	7,619	2,575	1,667	726
Oman	19,141	6,766	1,014	1,085	749
Qatar	7,862	2,460	1,355	1,037	587
Bahrain	5,472	2,570	123	125	86
United States of America	9,233	1,029	249	317	45
Kuwait	1,714	210	987	1,162	1,172
Turky	1,246	1,108	489	811	1,005
Japan	2,428	468	75	538	458
Italy	1,295	1,516	851	1,010	1,204
Others	1,8465	4,228	2,278	3,950	3,817
<b>Total</b>	<b>429,874</b>	<b>275,737</b>	<b>234,451</b>	<b>262,899</b>	<b>283,640</b>

Source: PMI Placement and Protection Data, BNP2TKI 2018: Page 6

Based on Table 6, it can be seen that Malaysia is the country with the highest number of Indonesian Workes in the last five years, where during the 2014-2018 period the number of Indonesian Workes who came to work in Malaysia reached around 493 thousand people. Hong Kong has become the second country with the highest number of Indonesian Workes in the last five years, where in the 2014-2018 time period, Indonesian Workes who were placed to work in Hong Kong reached around 208 thousand people. Then the third country with the highest number of Indonesian Workes in the last five years is Singapore, where the Indonesian Workes who worked in Singapore in the 2014-2018 period were 102 thousand people.

### 3. The cost of sending remittances to Indonesia

A number of administrative fees or delivery service fees must be paid by Indonesian Workes when sending their work to their families in Indonesia. The amount of remittance costs for Indonesian Migrant Workers can be seen in table 4.5

Based on Table 7, it can be seen that the amount of fees that migrant workers must pay when sending money to Indonesia per US \$ 200. The average cost that a migrant worker must pay when sending money to Indonesia per US \$ 200 is US \$ 7.2. This delivery fee is the average cost of all channels or institutions that can be used to send remittances.



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**Table 7: Costs of sending remittances for Indonesian migrant workers to Indonesia in 2014-2018**

Year	Remittance Delivery Fee (USD)
2014	7.3
2015	6.9
2016	7.4
2017	7,1
2018	7.4
Average	7,2

Source: World Bank, Year 2019

Indonesian workers in sending remittances or money from their work to Indonesia can use formal bank or non-bank institutions available in various countries where they work. Bank formal institutions such as Bank Mandiri, BRI, BNI, BCA. Meanwhile, formal non-bank institutions include, in Hong Kong (Chandra Remittance, Surya Jaya Express, Dwi Express), in Malaysia (Ez Money, Marchant Trade, Speed Send), in Taiwan (Index Remittance and Agent Remittance). The safety factor is the main reason when Indonesian workers choose a formal bank institution to send their remittances. Meanwhile, the factors of speed of delivery, ease of delivery methods, and easy-to-find delivery counters are the main reasons for migrant workers to send remittances through formal non-bank channels. However, it is not uncommon for some Indonesian workers to send their remittances through informal channels such as shops in the countries where they work or to leave their remittances to friends or other Indonesian workers who are returning to Indonesia.

#### 4. Remittances for Foreign Workers in Indonesia

Remittances for foreign workers are an amount of money sent by foreign workers who work in Indonesia to their country of origin. Remittances for foreign workers are somewhat less than the remittances for Indonesian workers, more clearly regarding remittances for foreign workers can be seen in table 8

**Table 8: Remittances of Foreign Workers by Country of Origin, 2014-2018, (US \$ Million)**

Country	Year					Average
	2014	2015	2016	2017	2018	
Malaysia	166	183	204	208	206	194
Philippines	104	115	128	130	129	121
Thailand	102	113	126	128	127	119
Singapore	97	107	120	122	121	113
Japan	304	336	375	382	378	355
South Korea	231	256	285	290	287	270
China	176	195	217	221	219	206
India	567	627	699	712	704	662
Taiwan	100	110	123	125	124	117
United States of America	384	425	473	482	477	448
Australia	78	86	96	98	97	91
Others	402	478	533	543	537	498



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Total	2,713	3,031	3,378	3,442	3,404	3,194
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Source: Indonesian Economic and Financial Statistics, Bank Indonesia 2019

Based on Table 8, it can be seen that remittances for foreign workers based on their country of origin in the last 5 years period. Remittances for foreign workers from India were the largest among other countries, where the average remittances of Indian foreign workers in the 2014-2018 period reached US \$ 662 million. This is not surprising because India is indeed the country that receives the highest inflow of remittances in the world, with its workforce spread across almost all countries including Indonesia. Remittances from foreign workers from the United States became the second largest, where the average remittances of foreign workers from Uncle Sam's country in the 2014-2015 period reached US \$ 448 million. Actually the number of foreign workers from the United States in Indonesia is not too much compared to foreign workers from China, India, Japan and other countries, but because foreign workers from the United States are on average formal workers with managerial positions and the same level, therefore the income they get relatively larger and the remittances they send to their home countries are also of course a lot.

Meanwhile, remittances from foreign workers from China were in the 5th position below Japan and South Korea, where the average remittances of foreign workers from China in the 2014-2018 period were US \$ 206 million. Labor from China has recently flooded into Indonesia, because investment from the bamboo curtain country to Indonesia continues to increase, but indeed because the average labor brought in is project laborers and other manual laborers, so the remittances they send from Indonesia to China are still relatively few compared to other countries that have been previously mentioned. Overall, the average remittance of foreign workers in the 2014-2018 period was US \$ 3.2 billion, this figure is still less than the average remittance of Indonesian migrant workers in the same period of US \$ 9.2 billion.

### 5. Indonesia's Foreign Exchange Reserves

The export of television is an indicator of a country's economic resilience which has various uses. Most of Indonesia's foreign reserves are used to finance imports, pay foreign debt installments and stabilize the rupiah exchange rate. Data on Indonesia's foreign exchange reserves can be seen in Table 9

**Table 9: Fluctuations in Indonesia's Foreign Exchange Reserves (US \$ Billion)**

Period Year / Quarter	Reserve Foreign exchange	Percentage Change	Period Year / Quarter	Reserve Foreign exchange	Percentage Change		
2009	Q1	54.84	-	2014	Q1	102.59	3.2
	Q2	57.58	5.0		Q2	107.68	5.0
	Q3	62.29	8.2		Q3	111.16	3.2
	Q4	66.10	6.1		Q4	111.86	0.6
2010	Q1	71.82	8.7	2015	Q1	111.55	-0.3
	Q2	76.32	6.3		Q2	108.03	-3.2
	Q3	86.55	13.4		Q3	101.72	-5.8
	Q4	96.21	11.2		Q4	105.93	4.1
2011	Q1	105.71	9.9	2016	Q1	107.54	1.5
	Q2	119.66	13.2		Q2	109.79	2.1
	Q3	114.50	-4.3		Q3	115.67	5.4
	Q4	110.12	-3.8		Q4	116.36	0.6
2012	Q1	110.49	0.3	2017	Q1	121.81	4.7



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	Q2	106.50	-3.6		Q2	123.09	1.1
	Q3	110.17	3.4		Q3	129.40	5.1
	Q4	112.78	2.4		Q4	130.20	0.6
	Q1	104.80	-7.1		Q1	126.00	-3.2
2013	Q2	98.10	-6.4	2018	Q2	119.84	-4.9
	Q3	95.68	-2.5		Q3	114.85	-4.2
	Q4	99.39	3.9		Q4	120.65	5.1

Source: Indonesian Economic and Financial Statistics, Bank Indonesia 2019

Based on Table 9, it can be seen that the development or fluctuation of Indonesia's foreign exchange reserves in the last 10 years. At the end of 2009, Indonesia's foreign exchange reserves were still around US \$ 66 billion, this amount was enough to finance 6.5 months of imports and government foreign debt payments. In the fourth quarter of 2010, Indonesia's foreign exchange reserves increased by about 46 percent compared to the same period the previous year, where Indonesia's foreign exchange reserves in the fourth quarter of 2010 amounted to US \$ 96.2 billion, this amount is enough to finance 7 months of imports and government foreign debt payments. The increase in foreign exchange reserves in 2010 was due to a surplus in the current account and a surplus in the capital and financial account, where the current account surplus was US \$ 1.2 billion, which was supported by an increase in exports of oil and gas, non-oil and gas, and remittances of Indonesian migrant workers, while a surplus the capital and financial account balance reached US \$ 9.9 as a result of a significant increase in direct investment inflows.

Indonesia's foreign exchange reserves experienced a fantastic increase throughout 2017, starting with an increase in the first quarter of 2017 by 4.7 percent compared to the fourth quarter of the previous year, a significant increase occurred again in Q3, where there was an increase in foreign exchange reserves by 5.1 percent. So that the overall position of Indonesia's foreign exchange reserves in 2017 increased by around 11.9 percent to US \$ 130.2 billion or equivalent to 8.3 months of imports and government foreign debt payments. The increase in foreign exchange reserves in 2017 was influenced by a decrease in the current account deficit caused by an increase in non-oil and gas exports, a decrease in the deficit from the services account, and an increase in revenue from the secondary sector. Then this foreign exchange reserve was also caused by an increase in the surplus that occurred in the capital and financial account, which was influenced by the increase in foreign investment and portfolios. This condition makes Indonesia's balance of payments a surplus of US \$ 11.6 billion.

### 6. Contribution of Indonesian Migrant Workers' Remittances to Indonesia's Foreign Exchange Reserves

Remitansi migrant workers tend to have increased, as well as Indonesia's foreign exchange reserves are also likely to increase, but also often decreased. Then in fact, how much remittances contribute to Indonesian foreign exchange reserves, can be seen in Table 10 for more clarity

**Table 10: Contribution of Indonesian Migrant Workers' Remittances to Indonesia's Foreign Exchange Reserves**

Period Year / Quarter	Contribution	Period Year / Quarter	Contribution		
2009	Q1	2.86%	2014	Q1	1.85%
	Q2	2.89%		Q2	2.04%
	Q3	2.70%		Q3	1.90%
	Q4	2.58%		Q4	1.91%
2010	Q1	2.31%	2015	Q1	2.09%
	Q2	2.20%		Q2	2.21%

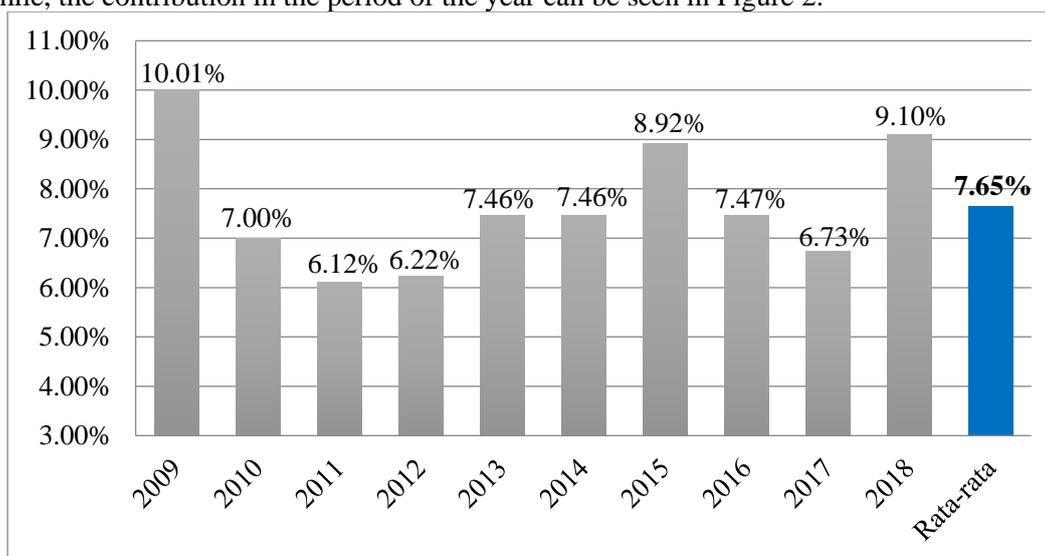


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2011	Q3	1.97%	2016	Q3	2.32%
	Q4	1.76%		Q4	2.21%
	Q1	1.58%		Q1	2.11%
	Q2	1.40%		Q2	2.03%
2012	Q3	1.49%	2017	Q3	1.85%
	Q4	1.53%		Q4	1.75%
	Q1	1.56%		Q1	1.79%
	Q2	1.63%		Q2	1.78%
2013	Q3	1.58%	2018	Q3	1.70%
	Q4	1.61%		Q4	1.71%
	Q1	1.78%		Q1	2.12%
	Q2	1.90%		Q2	2.37%
	Q3	1.92%		Q3	2.39%
	Q4	1.86%		Q4	2.25%
Average Contribution			1.99%		

*Source: Indonesian Economic and Financial Statistics, Bank Indonesia 2019, Processed data*

Based on Table 10, it can be seen how the contribution of Indonesian workers' remittances to Indonesia's foreign exchange reserves from the 1st quarter of 2009 to the 4th quarter of 2018. Meanwhile, the contribution in the period of the year can be seen in Figure 2.



*Source: Indonesian Economic and Financial Statistics, Bank Indonesia 2019, Processed data*

**Figure 2: Contribution of Indonesian Workers' Remittances to Foreign Exchange Reserves (Per year)**

After obtaining the contribution of Indonesian workers' remittances to foreign exchange reserves in quarterly (Table 10) and annually (Figure 2), the analysis of the contribution of Indonesian workers' remittances to foreign exchange reserves is as follows:

### 1. The year 2009

Overall remittances for Indonesian labor migrants contributed 10.01 percent in 2009, where in the second quarter the contribution of remittances reached the highest at 2.89 percent. This increase in contribution was influenced by the increase in the amount of remittances that entered Indonesia, where in the second quarter the inflow of remittances for Indonesian migrant workers reached US \$ 1.66 billion, an increase of about 6.2 percent from the previous quarter. The increase in the inflow of remittances in the second quarter was also influenced by the increase in the number of Indonesian



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workes placement abroad, which reached 4,417 people spread across various countries, especially in Asia Pacific and Middle East countries.

### 2. The year 2010

Overall, in 2010 the contribution of remittances to foreign exchange reserves fell to 7 percent, compared to 10.01 percent in the previous year. This decline in contribution occurred especially in the third quarter, where the contribution of Indonesian workes remittances to foreign exchange reserves fell to 1.97 percent, whereas in the previous quarter the contribution of Indonesian workes remittances was still above 2 percent. The decline in contributions in the third quarter was mainly due to a very significant increase in foreign exchange reserves in the same period, which was 13.4 percent, while remittances for Indonesian migrant workers only increased by 1.5 percent. The weak increase in Indonesian workes remittances in the third quarter was influenced by the decrease in the number of Indonesian workes placement abroad. Meanwhile, foreign exchange reserves which experienced a significant increase were influenced by a surplus that occurred in the balance of payments of US \$ 6.95 billion, which was supported by a surplus in the current account and the capital and financial account.

### 3. Year 2011

Overall, in 2011, the contribution of Indonesian migrant workers' remittances to foreign exchange reserves again decreased significantly, namely to only 6.12 percent or a decrease of 0.88 percent compared to the previous year. The worst decline in contribution occurred in the second quarter, where in that quarter remittances for Indonesian workers only contributed 1.40 percent to foreign exchange reserves. The main factor affecting the decline in contributions in the second quarter was due to the fact that foreign exchange reserves were experiencing a significant upward trend, where in the second quarter foreign exchange reserves increased by 13.2 percent compared to the previous quarter. This significant increase in foreign exchange reserves was influenced by a surplus in the balance of payments that reached US \$ 11.88 billion. Meanwhile, in contrast, the increase in the inflow of remittances to Indonesia in the second quarter was only 0.36 percent. so that if we calculate the contribution of remittances to foreign exchange reserves, the result will be even smaller.

### 4. In 2012

Overall, in 2012 the contribution of migrant workers 'remittances to foreign exchange reserves increased slightly, namely by 0.11 percent, so that the contribution of migrant workers' remittances to foreign exchange reserves was 6.22 percent. The highest increase in contribution occurred in the second quarter, where in that quarter the contribution of Indonesian migrant workers' remittances to foreign exchange reserves increased to 1.63 percent. The increase in contributions in the second quarter was influenced by an increase in the inflow of remittances for Indonesian migrant workers from Hong Kong and Taiwan as well as countries from the Americas and Europe. In addition, the dominant factor that caused the increase in the contribution of Indonesian migrant workers' remittances to foreign exchange reserves in the second quarter was due to the decline in foreign exchange reserves, where foreign exchange reserves decreased by 3.4 percent compared to the previous quarter period. This decline was due to the worsening current account deficit, where the current account deficit in Q2 reached US \$ 8.12 billion, driven by a decline in oil and gas exports and an increase in non-oil and gas imports amid a slowdown in growth in non-oil and gas exports.

### 5. Year 2013

Overall in 2013 the contribution of Indonesian migrant workers' remittances to foreign exchange reserves increased significantly compared to the previous year, namely by 1.24 percent, so that the contribution of Indonesian workes remittances to foreign exchange reserves in 2013 was 7.46 percent. The highest increase in contribution occurred in the 3rd quarter, where in that quarter the contribution of remittances to foreign exchange reserves was 1.92 percent, higher than the increase that occurred in Q1 and 2. In fact, in the 3rd quarter, the flow of remittances to Indonesia experienced a decrease of about 1.6 percent compared to the previous quarter, but due to the higher decline in foreign exchange reserves, namely around 2.5 percent, the contribution of remittances to foreign



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exchange reserves increased. The cause of the decline in foreign exchange reserves in the third quarter was due to the widening deficit in the balance of payments, where the deficit in the balance of payments in the third quarter increased by around 6.8 percent or to US \$ 2.64 billion.

### 6. Year 2014

Overall, the contribution of Indonesian workers' remittances to foreign exchange reserves in 2014 was slightly changed compared to the previous year, where the contribution of Indonesian workers' remittances was 7.46 percent, this figure was reduced by about 0.006 percent. However, in the second quarter the contribution of remittances for Indonesian workers increased quite significantly, namely to be 2.04 percent or an increase of about 0.18 percent compared to the first quarter. This increase was caused by the inflow of remittances for Indonesian workers who experienced a fairly high growth, where in the second quarter in this regard, Indonesian workers' remittances increased by 15.4 percent compared to the previous quarter, this increase mainly came from remittances of Indonesian workers working in Saudi Arabia which increased by US \$ 130 million, Malaysia which increased by US \$ 35 million, Taiwan which increased by US \$ 17 million, and from several countries in America which as a whole increased by US \$ 49 million.

### 7. 2015 year

The contribution of Indonesian workers' remittances to foreign exchange reserves as a whole in 2015 experienced a significant increase, namely to become 8.92 percent or an increase of about 1.5 percent compared to the previous year. This increase occurred in the first quarter to the third quarter, where in the second quarter, the contribution of remittances for Indonesian workers increased to 2.21 percent. This increase was driven by an increase in remittances for Indonesian workers in the second quarter, which increased by 2.31 percent, the increase in remittances for Indonesian workers was mainly from Indonesian workers who worked in Saudi Arabia, which increased by US \$ 34 million, Malaysia which increased by US \$ 12 million, and that of Indonesian workers working in Taiwan, an increase of US \$ 8 million. Another factor that led to an increase in the remittance contribution of Indonesian workers in the second quarter was foreign exchange reserves, which decreased by 3.16 percent.

### 8. 2016 year

The contribution of migrant workers' remittances to foreign exchange reserves experienced a significant decrease in overall in 2016, namely to 7.47 percent or a decrease of 1.45 percent compared to the previous year. The worst decline in contribution occurred in the 3rd and 4th quarters, where in the 3rd quarter the contribution of Indonesian workers' remittances to foreign exchange reserves fell to 1.85 percent, whereas in the previous quarter it was still 2.03 percent. The decrease in the contribution of Indonesian workers' remittances was due to the influx of remittances for Indonesian workers in the third quarter which was also experiencing a downward trend since 2015, in the third quarter the decline in remittances from Indonesian workers reached 3.8 percent, the decrease in remittances for Indonesian workers, especially from Malaysia, which fell by US \$ 14 million, Saudi Arabia which also fell by US \$ 14 million, and from several countries in the American continent which decreased by US \$ 22 million.

### 9. 2017 year

Overall in 2017, the contribution of Indonesian workers' remittances to foreign exchange reserves again experienced a significant decline, where in that year the contribution of Indonesian workers' remittances became 6.74 percent or decreased by around 0.74 percent from the previous year. In fact, in the first quarter, the contribution of migrant workers' remittances to foreign exchange reserves had increased to 1.79 percent, this was because the inflow of migrant workers' remittances increased quite high, namely by 6.8 percent, compared to the 4th quarter of the previous year. However, in the second and third quarters the contribution of migrant workers' remittances experienced a drastic drop, especially in the third quarter, where the contribution of migrant workers' remittances to foreign exchange reserves fell to 1.70 percent. This decrease was due to the weak growth in the inflow of



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remittances for Indonesian labor migrants, which was only 0.52 percent, while on the other hand, foreign exchange reserves experienced a much higher growth, amounting to 5.13 percent.

### 10. 2018 year

Overall in 2018, the contribution of Indonesian workers' remittances to foreign exchange reserves reached the highest level since 2010, where the contribution in 2018 was 9.10 percent or an increase of about 2.37 percent from the previous year. This increase was driven by a significant increase in the inflow of remittances, particularly in Q1, during which the inflow of remittances increased by 20.3 percent compared to the 4th quarter of the previous year. The increase in the inflow of remittances in the first quarter was due to the increase in the number of Indonesian workers' shipments working in Saudi Arabia, where the shipments from Indonesian workers reached US \$ 963 million, compared to the fourth quarter of the previous year which was only US \$ 637 million. On the other hand, in the first quarter, foreign exchange reserves decreased by around 3.2 percent, which was caused by an increase in the deficit in the balance of payments which reached US \$ 3.8 billion. So that with the increase in the inflow of migrant workers' remittances and the decreasing foreign exchange reserves, the contribution of migrant workers' remittances to foreign exchange reserves increased to 2.12 percent, compared to the fourth quarter of the previous year which was still around 1.71 percent.

### 7. Comparison of the Contribution of Migrant Workers' Remittances with Other Sectors on Indonesia's Foreign Exchange Reserves

Apart from remittances for Indonesian workers, there are many other sectors that are the main source of Indonesia's foreign exchange reserves, especially from the export and tourism sectors. These sectors have consistently contributed significantly compared to other sectors. Indonesian workers' remittances when compared to these sectors are the sector with the fifth largest contribution to Indonesia's foreign exchange reserves. For more details, it can be seen in Table 11.

**Table 11: Sectors with the Largest Contribution to Foreign Exchange Reserves**

Year	Coal	Palm oil	Tourism	Oil and Gas	TKI Remittances	Rubber
2009	20.8%	15.5%	9.5%	26.9%	10.0%	7.1%
2010	18.5%	14.0%	7.9%	25.1%	7.0%	9.6%
2011	24.4%	15.7%	7.8%	29.4%	6.1%	12.8%
2012	23.3%	15.7%	8.1%	26.9%	6.2%	9.2%
2013	24.5%	16.6%	10.2%	28.0%	7.5%	9.4%
2014	18.6%	15.6%	10.0%	21.3%	7.5%	6.3%
2015	15.1%	14.5%	11.5%	14.1%	8.9%	5.5%
2016	12.5%	12.3%	11.7%	9.9%	7.5%	4.8%
2017	15.7%	14.2%	11.7%	10.2%	6.7%	5.6%
2018	19.9%	13.7%	13.3%	12.3%	9.1%	5.1%
Average	19.3%	14.8%	10.2%	20.4%	7.6%	7.5%

Source: Bank Indonesia and the Ministry of Tourism in 2019 ; Processed data

Based on Table 11, it can be seen the comparison of the contribution of Indonesian migrant workers' remittances, exports, and tourism to Indonesia's foreign exchange reserves from 2009-2018. Exports of oil and natural gas are the sector that has the largest contribution to Indonesia's foreign exchange reserves, where the average contribution of oil and gas exports in the last ten years is 20.4 percent. The main destination countries for Indonesia's oil and gas exports are Singapore, South Korea, China, Malaysia and Taiwan. Coal exports are the sector with the second largest contribution to Indonesia's foreign exchange reserves, where the average contribution of coal exports to foreign exchange reserves is 19.3 percent, but since 2015-2018 coal exports have become the sector with the largest contribution to foreign exchange reserves, beating exports oil and gas. The largest contribution occurred in 2013, where in that year the results of coal exports contributed 24.5 percent to Indonesia's



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foreign exchange reserves, with an export volume of 423 million tons and export proceeds reaching US \$ 24.4 billion.

The export commodity of palm oil (*crude palm oil*) is an export commodity with the third largest contribution to Indonesia's foreign exchange reserves, where the average contribution of palm oil exports in the last ten years is 14.8 percent. The largest contribution occurred in 2013, in which the volume of palm oil exports was around 22 million tonnes and the resulting foreign exchange was US \$ 16.5 billion, so that the contribution that year reached 16.6 percent. Foreign foreign exchange tourism became the sector with the fourth largest contribution to Indonesia's foreign exchange reserves, where the average contribution of tourism foreign exchange to foreign exchange reserves in the last ten years was 10.2 percent. Indonesia's mainstay tourist destinations most visited by foreign tourists are Bali, Lombok, Raja Empat and Bunekan.

Rubber exports were the fourth largest contributor to foreign exchange at least in the 2010-2012 period, where the highest foreign exchange contribution from rubber exports occurred in 2011, amounting to 12.8 percent, in that year the volume of Indonesian rubber exports was around 3 million tons and the foreign exchange generated reached US \$ 14.1 billion. The amount of foreign exchange obtained from rubber exports in that period was driven by the high demand for raw rubber in the international market, which caused rubber prices to soar high and of course very profitable for rubber exporting countries such as Indonesia. However, this condition did not last long, because lately the price of rubber has decreased, causing the foreign exchange earned to decrease and of course the contribution of rubber exports to Indonesia's foreign exchange reserves has become smaller, where in 2018 the foreign exchange from rubber exports fell to around US \$ 6.15 billion, so that the foreign exchange contribution from the export of rubber to Indonesia's foreign exchange reserves in that period was only 5.1 percent, this figure is the lowest among the other 5 sectors.

### 5. CONCLUSION

Based on the results of research and discussion in the previous chapter, several conclusions can be drawn, including:

1. The contribution of Indonesian workers' remittances to foreign exchange reserves from Q1 2009 to Q4 2018 has always fluctuated. The highest contribution occurred in the second quarter of 2009 amounting to 2.89 percent, while the lowest contribution occurred in the second quarter of 2011, namely 1.40 percent. Then the average contribution of Indonesian workers' remittances to foreign exchange reserves from the 1st quarter of 2009 to the 4th quarter of 2018 is 1.99 percent.
2. If calculated within one year, the remittance contribution of Indonesian labor migrants will incised a higher percentage. The high contribution occurred in 2009, namely 10.01 percent and in 2018, namely 9.10 percent. Meanwhile, the lowest contribution occurred in 2011 which was only 6.12 percent. Then the average contribution of Indonesian workes remittances to foreign exchange reserves from 2009-2018 was 7.65 percent.
3. If the ranking is carried out for the sectors that have the largest contribution to foreign exchange reserves, the remittances of Indonesian workers will be in fifth position under the oil and gas export, coal exports, palm oil (CPO) exports, and foreign tourism

### LIMITATION AND STUDY FORWARD

Based on the research results and conclusions that have been obtained, the suggestions given by the researcher are as follows:

1. For the government and agencies that specialize in dealing with Indonesian workes problems, it is necessary to pay more attention to sending Indonesian workes abroad. Because migrant workers who are sent to work overseas have an average low level of education and low *skills*, most of them are only able to occupy jobs as laborers or housekeepers with salaries that are not too high. The government should also place more formal channels for sending remittances, so that migrant workers have no trouble sending their money to Indonesia.



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2. For future researchers who wish to develop this research, it is advisable to test or analyze the effect of remittances on other economic indicators, such as economic growth, investment, or the rupiah exchange rate.

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## CHANGE LEADERSHIP: FACING THE NEW NORMAL DUE TO THE 2019 COVID PANDEMIC

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### Abstract

The COVID19 pandemic has had a dramatic impact on people's lives, especially businesses and companies, which has caused many changes in the VUCA world. This paper seeks to study how the leadership of an organization / company manages the change processes in the rapidly changing, chaotic and turbulent business environment that has become the 'new' normal. The writing of this paper is done through a study of various literatures. The leader acts as an agent of change, plays an important role in initiating, implementing, and managing change in times of crisis in conditions that are severe, uncertain and complex. Many companies don't understand how to react or handle this situation. Every organization must be able to identify it because every problem requires a fast and unique response. Each of these components poses unique challenges that can be faced with Vision, Understanding, Clarity, and Agility.

**Keywords:** *Management, Leadership, Change, VUCA*

### 1. INTRODUCTION

At the end of 2019, there was an incident that shocked the entire world population, namely the spread of the new world coronavirus (COVID-19) very rapidly throughout the world, such as China, England, Italy, Spain, France, Malaysia, the Philippines, and others. The first time the appearance of this virus was reported from Wuhan, China. Confirmed cases of COVID-19 have increased rapidly to their numbers far exceeding the SARS virus in 2003. Due to the human-to-human transmission capacity of the virus, the World Health Organization (WHO) declared an international public health emergency on 31 January 2020. In Indonesia, the initial confirmed positive case of COVID-19 was on March 2, 2020 (Ministry of Health, 2020).

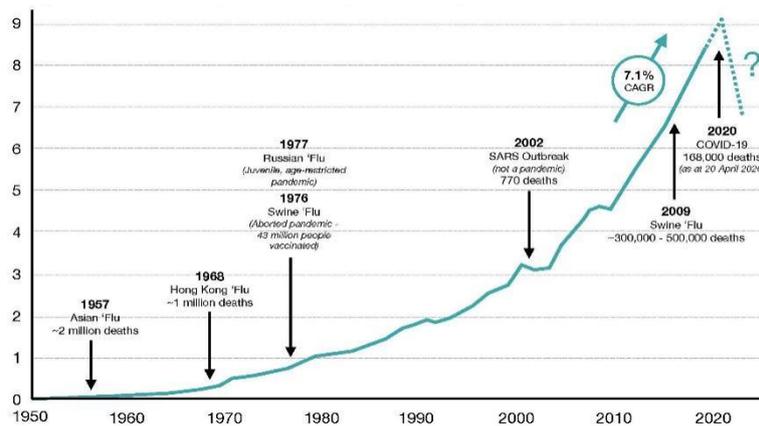
The rapid spread of the virus to prove that the world has been interconnected with globalization, so the impact on the economic challenges of an increasingly large. The world today is a very complex system and changes occur rapidly among its sub-systems so that it gives pressure to make every effort to anticipate any changes and forms of the transformation process. The surprise is an intrinsic aspect of change, especially when it occurs at high speed with high levels of volatility, uncertainty, complexity, ambiguity (VUCA). (Heinonen, Karjalainen, Ruotsalainen, & Steinmüller, 2017)

In the COVID-19 pandemic, the phrase new normal appears, referring to changes in human behavior when experiencing a pandemic. Will life return to normal, or will a new normal occur when the level of COVID-19 infection has started to slow down and decline. When restrictions on community activities are lifted or reduced, people will be able to return to work and businesses will begin to open up. Driven by the fulfillment of the need to revive the people's economy (Millard, 2020).

New Normal is a term in business and economics that refers to the financial condition after the 2007-2008 financial crisis and after the 2008-2012 global recession. Since then, this term has been used in various other contexts to imply that what was previously abnormal has become commonplace. El-Erian (2010) pioneered the use of the new normal term, which tries to discuss that the impact of the crisis was unexpected, not just a wound and a truncated crisis. Yet it delivers the inevitable outcome of a multi-year period of extraordinary and completely abnormal crisis. (Kennedy, 2020)

Thus, new normal is a term used to reflect changes in society, particularly about the economy, which refers to significant changes in financial and business conditions. The term arises from a context in which economists and policymakers believe that the economy and industry are headed for new ways after the 2007-2008 financial crisis. ( El-Erian, 2010 )

Humanity has experienced four global outbreaks (pandemics) due to coronavirus infection in the past century. Namely in 1918-1920, 1957 and 1968, and at least three well-known coronavirus epidemics that failed to reach pandemic scale. This recurring occurrence experienced a massive increase that appeared in the last two decades, as seen in Figure 1 below. ( Millard, 2020 )



**Figure 1: Pandemic incidence since 1950 ( Millard, 2020 )**

The challenges caused by the COVID-19 pandemic are very relevant to the current volatile world development, full of uncertainty, complexity, and ambiguity (VUCA). By the definition of each element, volatile is the speed of change and response to a pandemic. Uncertainty, answer not yet known, feeling out of control with no experience. The complexity, the disease impact, and response, such as the need for social and physical distancing that resulted in the community's business activities. Ambiguity, the information obtained is uneven and changing, even experts are still arguing about this pandemic. ( Holland, 2020 )

Now, everyone feels that the impact of COVID-19 has brought an economic and business crisis without precedent. However, a pandemic is not something new in the world of VUCA ( volatile, uncertain, complex, and ambiguous ), even in the future. Experts tell me time and time again to be prepared for changes that are sure to always be there. For this reason, it is necessary to increase the ability to anticipate sudden and deep disturbances. COVID-19 is a disaster that must be faced in today's VUCA world. ( Huy, 2020 )

These changes continue to take place quickly. Not a day goes by without important discoveries. Also, many individuals find it very difficult to keep up with the pace of change ( Cameron & Green, 2015 ). These ubiquitous changes make behavior to lead change successfully a major topic for organizations. The speed and complexity increase greatly. The future success of the organization depends on how successfully the organization will be able to manage that change ( Anderson & Anderson, 2001 ). Organizational crises are more frequent and cumulative as the environment becomes increasingly complex ( Hwang & Lichtenthal, 2000 ).

The new environment resulting from this change is characterized by interconnectedness and an increasing level of complexity. The global economy has become interconnected, and companies cannot just focus on their local economies. The company was forced to adjust its tactics and strategy to every event that occurred ( Petrie, 2014 ). Organizations that are quick and effective in responding to environmental changes will be able to survive. These environmental changes are caused by various factors such as technological innovation; increased global competition; economic and social restructuring; shifting expectations of clients and stakeholders; growth; ecological dilemma; changing



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the nature of the workforce; new government, international regulations, and so on. In a fast-developing world, change has become the norm for companies to maintain their existence and success. Therefore, it is increasingly difficult for companies to make decisions because the business environment is very uncertain and volatile ( Courtney, 2003 ).

According to various authors, the failure rate for neglecting change initiatives is up to 70 percent ( Higgs & Rowland, 2005 ). It is necessary to implement major changes that grow the need for organizations to be able to react and manage in a business environment that is becoming increasingly complex, uncertain, turbulent, and unstable since the world is changing rapidly ( Higgs & Rowland, 2005 ). Therefore, it becomes difficult for organizations and leaders to understand how to react or manage change in a situation of change that takes place rapidly from the events that are happening now.

### 2. LITERATURE REVIEW

The COVID- 19 pandemics are fundamentally shaping new behavior in how we do business. Even if the restrictions on activities have ended and the virus can be suppressed by the discovery of a vaccine, the effects will remain for the foreseeable future. Now the whole world has experienced VUCA in real terms as a result of the pandemic, not only faced by developing countries but also developed countries ( Huy, 2020 ). Organizational leaders need to have the skills to identify what knowledge or skills are needed to bring change forward. Therefore, leaders need to have the skills to commit to a vision or mission that responds to individual needs, motivates other people's behavior, communicate effectively, the ability to try different strategies, and the ability to make good decisions ( Bookboon, 2010; Villa & Thousand, 2005 ).

The role of leaders is very important in this complex change because they are the ones who lead and manage increasingly complex changes. Leaders need extreme experience, skills, and patience to understand the components of systemic reform to fully implement change. Villa and Thousand (2005 ) suggested several components such as vision, skills, incentives, resources, and action planning to predict organizational success or failure while managing complex change. If all these components are collectively embedded in the system, then it contributes to managing complex change successfully in any organization. However, if one component is not maintained, the result will be something else that the change wants ( Villa & Thousand, 2005 ).

#### *Organizational Change*

Jones (2013) explains that organizational change is a process where organizations move from their current state, or current to some desired future state to increase their effectiveness. In other words, it is a procedure where the organization changes its activities as well as the technology and implementation of procedures to achieve the desired organizational goals ( Khan & Hashim, 2014 ).

The definition of change, according to Wibowo (2008), is to make something different, is a shift from the present state to the desired state in the future. Various factors that cause changes can come from internal and external. Internal factors are factors that originate in society itself of the perceived need for change. Meanwhile, external factors are factors originating from outside the institution that can affect the organization or activities of the organization, such as economy, politics, law, technology, culture, natural resources, demography, sociology, and so on.

Changes in an organization can take place continuously or for a certain period. It may be planned years or it may be imposed on an organization due to a changing environment. Organizational change can occur gradually and slowly or it may be radical and quickly adjust to the way the organization operates ( Elsaid et al., 2013 ). Also, change includes letting go of old ways of doing things and adapting to new ways. An organization and individuals should always be careful about changes from within the organization and from outside situations. Therefore, they must learn how to adapt to change quickly and successfully ( Jones, 2013 ).



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Bharijoo ( 2005 ) states that changes in organizations can be classified into two types based on their nature; namely internal change and external change. Changes in processes, organizational structures, procedures, culture, techniques, technology, management styles, tools, and machinery indicate internal changes. P Changes economics, public policy, political change, legislation, labor market, social structure, and science and technology, showing the external changes.

Many forces in the environment have an impact on organizations ( Jones, 2013 ). One of the first steps of a leader is to identify internal and external forces when trying to introduce change in the organization ( Russell, 2006 ). External forces for change in the organization are outside management's control ( Ivancevich et al., 2008 ). The most important task of managers is to recognize the nature of these strengths ( Jones, 2013 ). Environment external, including therein is the competitive strength of economic, political, technological, demographic and socio also trigger the process of change ( Anderson & Anderson, 2001; Ivancevich et al., 2008; Jones, 2013 ). So, if the organization is slow or fails to respond to these forces, the effectiveness of the organization will be impaired, and will lag behind its competitors ( Jones, 2013 ).

Internal forces are usually those that operate within the organization and are under management control ( Ivancevich et al., 2008 ). The power within the organization causes change which puts pressure on leaders, stakeholders, and employees to continue in new directions ( Russell, 2006; Singh, 2009 ). Often internal forces for change reflect external forces. Russel (2006 ) argues that ideas and insights represented by internal forces can also be separated from external pressures for change. Various factors that cause changes in the organization include leadership and shared vision, failure of performance, employee dissatisfaction, and new ideas.

Different authors have their descriptions of the nature of change in organizations. Jones (2013 ) states that categories change into two types, namely evolutionary change and revolutionary change. Likewise, Anderson and Anderson (2001 ), in the sense of significance, describe the goals of change that occur in organizations into three types: developmental change, transitional change, and transformational change.

### ***VUCA in New Normal***

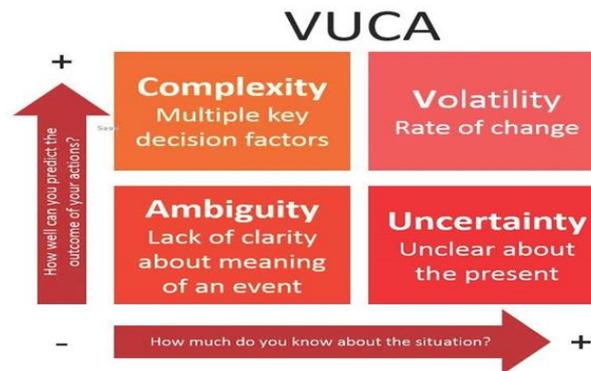
The COVID- 19 pandemics are fundamentally shaping new behavior for how we do business from now on. Even if the restriction of activities ends soon and the virus can be suppressed with the discovery of a vaccine, the effects will remain for the foreseeable future. Now the whole world has experienced VUCA in real terms as a result of the pandemic, facing not only developing markets but also developed countries. ( Huy, 2020 )

The term VUCA was first used in the military in the nineties to describe the battlefield situation faced by troop operations where field information is very limited. US military forces describe these extreme conditions in Afghanistan and Iraq, which are considered volatile, uncertain, complex, and ambiguous. ( Alwi, 2018 )

Subsequently, this term was developed and used in various fields, from companies to education. Especially in describing the current fluctuating business situation. These changing conditions are influenced by many factors such as political, social, technological, cultural, and environmental factors. Also, digitization in various sectors has made many changes that are difficult to predict due to the swift flow of information and sources. In general, VUCA is concerned with how people perceive conditions when making decisions, planning, managing risks, driving change, and solving problems. ( Rachmawati, 2018 )

VUCA ( Volatility, Uncertainty, Complexity, and Ambiguity ) is a description of the situation in the world today, especially in the economic and business fields. The term VUCA describes an increasingly volatile, complex environment with high uncertainty, especially the presence of new norms. In which there are challenges with the new consumer behavior, disruption in every line, and the number of competitors that are difficult to predict. VUCA is an era where change occurs very quickly, even if the

change can create chaos in one system if the people who run the system do not innovate more creatively. ( Alwi, 2018 )



**Figure 2 : VUCA Element Matrix ( Binar, 2020 )**

The "V" in the acronym VUCA stands for volatility. Volatility means the speed, volume, magnitude, and nature of changes that are in an unpredictable pattern ( Lawrence, 2013 ). Sullivan (2012 ) defines volatility where things change rapidly but not in repetitive patterns or predictable trends. Besides, Bennett and Lemoine (2014 ) define a volatile situation as "an unstable or unpredictable situation; it does not need to involve complex structures, lack of critical knowledge or doubts about what results might result from important events ".

The "U" in the acronym VUCA means uncertainty. Uncertainty is "a term used to describe a situation characterized by a lack of knowledge, not as a cause and effect but more to do with whether a particular event is significant enough to form a meaningful cause" ( Bennett & Lemoine, 2014 ). Also, in uncertainty, 'disruptive' changes often occur due to a lack of prediction in various problems and events. In an environment of uncertainty, problems and events of the past have been unable to again be used to predict the future accurately, so it is very difficult to be identified and to prepare " a pa which will come next " and challenge decision ( Lawrence, 2013; Sullivan, 2012 ). Uncertainty is not volatility. In an unstable situation, changes may occur, but only that it may come quickly and on a different scale. On the other hand, in an uncertain situation, there may be no inherent changes at all ( Bennett & Lemoine, 2014 ).

The "C" in the acronym VUCA stands for complexity. Sullivan (2012) shows where " there are many causes and elusive mitigating factors involved in a problem". Besides, complexity adds to the turbulence of change, makes decision making difficult in the absence of past predictors, and also causes confusion which can lead to ambiguity (Lawrence, 2013 ). A situation of complexity is different from a situation that is volatile or uncertain. For example, organizations that conduct business in many countries may only face a complexity because of the regulatory environment and political climate, but this does not mean that the situation is volatile or uncertain ( Bennett & Lemoine, 2014 ).

"A" in the acronym VUCA means ambiguities. The meaning of an event is unclear, the nature of its cause and effect relationship is questionable in a situation of ambiguity. An ambiguity defined as "the cause, who, what, where, when, how, and why " in turning things happen not was unclear and difficult to ascertain. There are symptoms associated with ambiguity: the inability to accurately conceptualize the threats and opportunities before they become deadly and increase a sense of frustration towards the achievement of fragmented or not provide additional successes comprehensive. Ambiguous situations usually revolve around new products, innovations, markets, or opportunities. Moreover, in a situation of uncertainty, if you collect sufficient information, are still able to predict what might happen. However, ambiguous situations are more challenging because of novelty, limited past patterns, to determine the outcome of a particular cause or series of actions. ( Bennett & Lemoine, 2014; Lawrence, 2013; Sullivan, 2012 )



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So volatility means a very fast dynamic change in various things such as social, economic, and political. Due to rapid changes, it is difficult for business people to anticipate the changes that are coming. Uncertainty means that it is difficult to predict issues and events that are currently happening. Complexity is the disruption and chaos that surrounds every organization. Ambiguity is defined as the heavy burden of reality and meaning that mingles from various existing conditions, or a state that feels floating and the clarity of which is questionable. (Binar, 2020)

### *Changes in Consumer Behavior*

The current VUCA situation makes everything change, all businesses, be it print media, transportation, lodging, tickets for various purposes, shops, to conventional lifestyles, experience tremendous turmoil and uncertainty. Until now, the conventional business model has undergone a transformation that has not yet found its exact form. While what has changed in the digital form or indeed born-digital own DNA, is still a major grant that somehow knows when will find a turning point in her ( break-even point ). Even the technology (communication) that was hoped to make life easier, in fact in many cases created new complexities not found in the manual era. Such as the rumors and hoaxes that are made can destroy the old order. ( Agung, 2018 )

In business, building a product with a strong, long-lived brand can crumble over a rumor. News about restaurants without halal certificates, foods containing expired ingredients for the bread-making process that turned out to have rats' nests, are the most actual examples of unclear news that are finally believed to be true. As a result, business owners must try to resolve these rumors. VUCA has indeed made the business world a mess. Various businesses that run conventionally must be friendly with the digital area. Businesses designed from the ground up with digital platforms are particularly vulnerable to the disruption of new, more sophisticated, and less expensive inventions. On the other hand, consumer behavior has experienced significant changes. Consumers have many choices and have various wants and needs that have never existed before. ( Agung, 2018 )

With the impact of the COVID-19 outbreak entering a higher VUCA era, the threat of change is everywhere. This new lifestyle will form the basis for a stay @ home economy. In terms of consumer behavior in the new normal era, it is predicted as follows ( Yuswohady, 2020 ):

- The Fall of Mobility, The Rise of Stay @ Home. Behavior that desires practicality of everything, thereby stopping mobility and forcing people to stay at home.
- Online-Shopping Widening + Deepening: From Wants to Needs. Online purchases began to shift from a product that nature desires ( wants ) to products that nature is the need ( needs ). Consumer online shopping is widening ( widening ) from non-essential goods to essential ( daily needs ). And deep ( deepening ) where the volume of purchases is getting bigger.
- Food Delivery: From "Indulgence" to "Utility ". Consumers avoid eating out and turn to delivery services. So far, consumers use delivery services for fun and enjoyment types of food (such as boba tea, pizza, burgers, or geek chicken). Now it will turn to "utilities" for routine daily needs.
- The Comeback of Home Cooking. Many people have had sufficient free time at home during the pandemic to provide the opportunity to hone a new skill, namely cooking. Initially, many home cooking had left, but millennial mothers are increasingly improving their cooking skills. The COVID-19 pandemic makes them cook at home again.
- Frozen Food: Convenience Solution. Millennial mothers are no longer good at cooking. Although staying at home has become a momentum to return to his cooking habits, the millennial cooking style is different from the previous generation. They prefer to cook simple and convenient meals. Then frozen food and ready-to-cook packaging will be an option.
- Going Omni. With the development of online shopping due to COVID-19, large-medium-small brands are starting to emerge with their omnichannel platforms either through websites or e-commerce and of course physical channels. They can no longer rely solely on the existing large marketplaces.



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- Subscription Model Matters. COVID-19 forces consumers to buy and consume online: Grocery shopping, enjoy movies/music, buy food, work and study, play games, and even exercise and yoga also through live online classes. Not only that, even online shopping is done regularly every day or periodically every week. Since their needs are routine and ongoing, a subscription purchase model will be more suitable and efficient.
- TV Strikes Back. Previously, mileage killed television, but COVID-19 has brought it back to life, especially smart TVs. TV has advantages that smartphones may not have, namely a large screen that is more comfortable to look at. Entering the era of "mobility death" due to social distancing, television is finding its momentum again.
- DIY & Self-Care @ Home . When consumers get used to staying at home, they start trying new and interesting things. One of them is doing self-care or self-rejuvenation such as facials, mani-pedi, and spas. Then the do-it-yourself (DIY) trend can become new normality and the purchase of self-care products automatically increases.
- Zoomable Workplace @ Home Work from Home is giving rise to a new trend of " zoomable workplace " at home. If previously the term " Instagram" was popular, now there is a "zoomable " term for the workplace at home. This trend is fueled by the popularity of the Zoom application for virtual meetings. Decorating an attractive workspace at home is an activity in itself. IKEA or Informa, for example, tend to be increasingly crowded with buyers.

However, not all behavior changes. For example in the manufacturing industry, work must be in the factory, not at home. Unless 3D printing has become a reality, which makes it possible to make things to be printed at home. Then tourism, we cannot exchange virtual experiences. For example, if you want to go to the sea, you can't just see pictures. Or sleeping in a hotel, cannot be exchanged with YouTube. So, businesses that need a physical presence, which require experience, are still needed. Because the essence is a meeting place where people gather to exchange services that can not be done virtually. ( Basri, 2020 )

A right but there are different opinions. Dani Rodrick of Harvard University said, "I'm not sure there will be any changes after this. The pattern will be normal. So, in my opinion, in the production pattern of the production network, it might change. But if it completely changes people's behavior, I'm not sure." According to him, the behavior of personal consumption will not change much. When the video appeared, people were worried that the theater would not sell. It turned out that some went to the cinema. So, the alternative, there were more various choices. But not immediately moved, shift to something new ones. ( Basri, 2020 )

The future life that happens is very volatile, uncertain, complex, and ambiguous, or what is known as VUCA. In today's fast-paced era, volatility and uncertainty have become a new normal life that cannot be easily predicted.

### ***Crisis Situation***

A crisis is a sudden, shocking, unexpected, and unpredictable event that can threaten the disruption of an organization's operations that can pose a financial and reputational threat ( Coombs, 2007 ). Also, crises can endanger various stakeholders, whether financial, emotional, or other physically experienced by employees, customers, suppliers, community members, and shareholders ( Coombs, 2007 ). Besides, crises pose a reputation threat because they provide reasons for people to think negatively about the organization ( Coombs, 2007 ). Pearson and Clair (1998 ), defines right organizational crisis as an " event with low probability and high impact-threatening to the survival of the organization and are characterized by ambiguity of cause and effect and how the settlement, as well as the destruction of beliefs and values generally dip Egang and the basic assumptions of the individual, as well as decisions were pressed on perceived time constraints ".

Crisis Management Consultants distinguish crises into two types, namely the cobra and python crises. Cobra crisis refers to a 'sudden' crisis, such as a catastrophe that hits a very shocking company, whereas the python crisis is known as the 'slow-burning' crisis or 'creeping crisis' which gradually destroys



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organizations with various problems as they arise ( Ahmed, 2006 ). Like, a crisis like bankruptcy, a disaster due to repeated negligence or corporate fraud is the python crisis. This type of crisis is more caused by the company itself, young people appear without a good reputation ( Cooley & Cooley, 2011 ).

Hwang and Lichtenthal (2000) distinguish two types of crises, namely crises and cumulative crises. Crises are triggered by the sudden impact of an internal or external disturbance that is generally more specific, but less predictable, than the cumulative one. On the other hand, cumulative crises " sow their seeds in an organization and force themselves over time until a certain threshold is reached " ( Hwang & Lichtenthal, 2000 ).

Roux-Dufort (2007 ) states that crises are not always negative or threatening, because they help to reveal organizational unconsciousness/readiness if a crisis does not occur. It is an evolutionary process and "nothing will ever be the same again". The causes of major crises are leadership failure, unresponsive culture, human error, poor planning, poor judgment, unethical or dishonest behavior, bad maintenance practices, and material failure ( Jaques, 2007 ).

Furthermore, Burnett (1998 ) looked at the findings from research on organizations experiencing a crisis, concluding that crises can produce both benefits and losses ". The possible advantages of a crisis are: heroes are born; new strategies are developing; accelerated change; people can be changed; emerging competitive; latent problems encountered, and an early warning system developed. Possible losses due to crisis, severely impacting company profits; damage to integrity and company name; negative employee morale; unwanted public and government scrutiny; and transfers of non-productive capital, employees, and time ( Burnett, 1998 ).

### *Change Management Strategy*

Jauch and Glueck (1988) define strategy as "a comprehensive and integrated plan that connects the strengths of the company's strategy to the environment at hand, all of which ensure that the company's goals are achieved". Porter (2004) said the strategy is an art and science of manufacture ( formulating ), application ( implementing ), and evaluation ( evaluating ) strategic decisions between functions that enable an organization to achieve the objectives in the future. In achieving the goal, sometimes there are changes in the environment, even very extreme. In dealing with this change, a change management strategy is needed. According to David (2004), strategies can be divided into integration, diversification, defensive, and general strategies.

Wibowo (2008) states that change management is a systematic process of applying the knowledge, tools, and resources needed to influence change in people who will be affected by the process. Change management is a systematic process of applying the knowledge, tools, and resources needed to affect change in people who will be affected by the process. Change management is also understood as an effort taken by managers to manage change effectively, where an understanding of the issues of motivation, leadership, groups, conflict, communication, and discipline is needed. Thus change management should have a good strategy, according to the situation and conditions . is or will happen (Arifin, 2017).

Contingency theory is one of the change management approaches developed by Tannenbaum and Schmid in 1973. This theory argues that the success rate of decision making is largely determined by several styles adopted in managing change. Contingency theory is also known as situational theory. Given the complexity of environments and organizations. According to this theory, the strategy chosen to deal with certain situations depends on the leadership style and type of situation at hand, or it is contingent on the existing situation. This theory is more suitable for use by a leader or who has authority in an organization to manage change, with leadership styles ranging from very authoritative to participatory. (Arifin, 2017)

Almost all changes occur through stages, including in change management, namely: the change identification stage, the change planning stage, the change implementation stage, and the evaluation



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and feedback stage. Various change management strategies that can be used include political strategy, economic strategy, academic strategy, engineering strategy, military strategy, confrontation strategy, applied behavioral science, and fellowship strategy. ( Arifin, 2017 )

Situation virus spread COVID-19 set as a pandemic by the WHO, greatly influence the attitudes and policies of those countries and businessmen in the whole world, including Indonesia. This contingency situation, in which the world suddenly changes due to the shock of this pandemic, has a profound impact on the global economy, even the potential for an economic crisis. Therefore, to deal with it requires a strategy taken by the leader towards more aggressive, courageous, and fast steps.

### 3. RESEARCH METHODOLOGY

The purpose of this paper is to see and study how company leaders respond to new norms through their leadership model due to the crisis that occurred from the COVID 19 virus pandemic. How leaders need to manage change in times of crisis, where organizations are in a severe, uncertain, and complex condition. Furthermore, it is also to provide insight into how to view this situation based on existing literature. Thus the writing of this paper is carried out using the literature review method by conducting studies from various libraries.

### 4. DISCUSSIONS

Leadership has been a popular topic over the years. But there is no complete understanding and agreement about 'what is leadership ? 'and' what effective or good leadership should be? ' ( Smith et al., 2002 ).

#### *Leadership*

Leadership is a change-agent whose actions affect others more than the actions of others affect them (Bass & Stogdill, 1990 ). According to Bennis (2009), by definition, a leader is an innovator. They do things that many people have not or dare not do. Furthermore, leadership is "the interaction between two or more group members that influence individual attitudes and behavior for achieving goals" ( Bass & Stogdill, 1990; Kesting et al., 2015 ).

Bennis (2009) proposes five basic ingredients for leadership, namely: 'guiding vision', 'passion', integrity, and curiosity, and courage.

- A guiding vision. Leaders have a clear idea or vision of what they want to do - professionally and personally - and the courage to endure setbacks or even failures.
- Passion. Leaders have an underlying passion for a profession, a calling, and action, and love what they do and love to do it. Moreover, a leader who communicates passion inspires and gives hope to others.
- Integrity. Integrity is an essential part of the leadership ingredient. Leaders have self-knowledge about their strengths and weaknesses. Next, find out what they can do and why they want to do it.
- Curiosity and Courage. The leader is curious about everything and wants to learn as much as possible. They try new things, take risks, and experiment without worrying about failing, knowing they will learn from their mistakes.

Kotter (2012 ) supports the view of Bennis (2009 ) and states that the leader's vision "defines what the future should be like to align people and inspire them to make it happen despite obstacles ". Furthermore, Bolden (2004 ) states that in today's changing global context, leadership is not only the answer to the success of people and organizations but also regions, sectors, and nations. Leadership involves influence and without it, leadership does not exist ( Northouse, 2010 ).

Thus, leaders need to have the skills to identify what knowledge or skills are needed to bring change forward. Therefore, leaders need to have the skills to commit to a vision or mission that responds to



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individual needs, motivates other people's behavior, communicate effectively, the ability to try different strategies, and the ability to make good decisions ( Bookboon, 2010; Villa & Thousand, 2005 ).

### *Leaders As Change Agents*

Ivancevich et al. (2008 ), defines change agents as "people who act as initiators for change activities. Can be a member of an internal company or an external consultant ". They often play an important role in managing, initiating, and implementing change in organizations ( Caldwell, 2003 ).

Change agents are facilitators of change, challenging the status quo by bringing different perspectives to situations. Also, they act as advisors, educators, trainers, data collectors, and meeting facilitators. In organizations, the success of a change program is highly dependent on the relationship between the primary decision maker and the change agent. Therefore, the form of intervention used in the change process is a decisive consideration. Some organizations rely on their in-house capacity, while others rely on outside assistance. Both internal and external change agents have their competences and who should be considered and what is best depending on the particular change situation ( Cameron & Green, 2015 ).

Caldwell (2003 ), described later by Cameron & Green ( 2015 ), proposes a classification of change agency models, namely leadership, management, consulting, and team models. These models provide useful theoretical and empirical foundations for clarifying the similarities between change agents ( Cameron & Green, 2015 ).

- 1) Leadership Model. In the leadership model, leaders or senior executives who are at the top of the organization are identified as agents of change. They are the people who initiate strategic change that is broad or transformational. The key strengths of the leadership model are the power, clear direction, sponsorship, and authority to 'make change happen'. Thus, the leader's commitment is visible to the stakeholders in the change process..
- 2) Management Model. In the management model, middle managers and functional specialists are understood as agents of change. They adapt, establish, or maintain support for strategic changes in key functions or business units. The strong point of this approach is that middle managers are closer to the 'coal face'. Therefore, they have better knowledge and understanding of what works and what doesn't in organizations. Thus, a strategic vision can be translated into local actions. However, it is reminded that middle managers may not be equipped with the necessary resources and skills to pay attention to the business and its changes
- 3) Consultation Model. In the consulting model, external or internal consultants are considered agents of change. They operate at the level of strategic and operational processes within an organization. So consultants provide expertise, advice, coaches, program changes, coordination, project management, or skills in facilitating the process of change. The main strength of the consulting model is that the consultant is an expert and has experience in many change management settings and also can work in partnership with organizations. A rather than a purely programmatic approach, it is more of an approach that appears to change. This is partly due to the contractual and psychological distance consultants may have, and in large part because of the way consultants are not so closed in the organization as to be part of the change and after it has occurred.
- 4) Team Model. In the team model, teams that can operate at the operational, strategic process, or task level are understood as agents of change. This may include functional specialists, managers, and employees from different departments as well as external and internal consultants. In this approach, the team consists of several people who have business knowledge, expertise in change management, and a larger network into the organizational system. The team model is an essential part of successful change management. The downside, however, is that they may believe they know best and feel superior, so they may become isolated from the rest of the organization. Therefore, organizations need to be careful when choosing a team model



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## *Facing VUCA in New Normal*

Every individual or company must understand the challenges and find a good solution for every element of VUCA they face, namely volatility, uncertainty, complexity, and ambiguity, to survive in the market. Bob Johansen developed the VUCA Prime Model, which proposes that the best VUCA leaders are differentiated by "vision, understanding, clarity and agility" in dealing with situations of change or crisis (Lawrence, 2013). Furthermore, this model can be seen as a continuum of skills needed by leaders to develop to lead organizations in the VUCA world. Lawrence (2013) asserts that VUCA Prime can be used by human resource and talent management professionals as 'skills and abilities' blueprint for developing leadership development plans. So, this model suggests different strategies to deal with the VUCA situation effectively.

### *1. Volatility*

This component illustrates that currently, no more business can be run stably because of the rate of technological advancement. This condition is influenced by many innovations that are based on fast and changing technological developments. Responding to this condition, business people are forced to change to follow the development of technology utilization. Like it or not, a process of "natural selection" will take place for business people. Flexibility and adaptability are important elements to survive in the industrial competition (Rachmawati, 2018; Isna, 2018). Lawrence (2013) states that volatility can be overcome with vision, and even becomes an important guideline in an unstable situation. Vision gives leaders a clear idea of what they want and where they want to take their organization. A leader with a clear vision can cope with an uncertain changing environment, such as new competition in a market or an economic downturn. Bennett and Lemoine (2014) write volatility has the power to trigger catalysis (acceleration of the process of change). These can be large-scale changes that occur suddenly and result in hasty decision making. Therefore, companies are required to learn to respond and manage change more effectively. Companies must adopt a proactive response in the face of changes in a disruptive environment that gives rise to command and structure problems. Agility is one way of dealing with volatility where the way is to create potential resources for a flexible future.

### *2. Uncertainty*

This component illustrates that nothing can be guaranteed in running a business cycle. This uncertainty makes it difficult for market and industry conditions to understand, predict, and resolve. Responding to this condition, many companies decided not to make changes to the uncertainties that occurred. Generally, this action is taken because of feelings of insecurity change in changing situations. However, running in an uncertain situation while learning direction is something a company must do to adapt (Rachmawati, 2018; Isna, 2018). Lawrence (2013) states that uncertainty can be overcome with understanding. A leader needs to have the ability to stop, watch, and listen. Furthermore, leaders must lead with vision and learn to look and listen beyond their functional areas of competence to understand volatility. Thus, leaders need to communicate with employees of various levels in the organization to develop and demonstrate teamwork and collaboration skills. Bennett and Lemoine (2014) write uncertainty can be overcome by gathering, analyzing, interpreting, and disseminating information. One solution is to use big data technology. In this case, the company must also be able to know and understand the problems and events around them and be able to relate each event based on partial input. Sufficient information can reduce uncertainty in this VUCA era. Companies that have the most recent and up-to-date information will be able to analyze the data they have and be able to see from different perspectives to face the future so they can avoid uncertainty.

### *3. Complexity*

The business that is getting more and more complicated is what is explained in this element. Decades ago, companies focused enough to pursue profits in their current business. But at this point, many factors must be considered to keep a company sustainable in the face of industry competition. Internal factors such as mission statement, action plan establishment, risk management, and employee skills are worth



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considering. Apart from internal factors, external factors also contribute, for example, customer involvement, stakeholder relations, CSR, and regulatory compliance. Therefore, a company's ecological thinking skills are needed to overcome this complexity. Ecological thinking is the company's ability to map and study various areas of relationships outside the company that includes market trends, customers, stakeholders, the physical environment, cooperative relationships with suppliers and suppliers, government relations and policies, and other areas. The results of the mapping are capital to create a sustainable business ecosystem for the company ( Rachmawati, 2018; Isna,2018 ). Lawrence ( 2013 ) states that complexity can be overcome with clarity, which is a deliberative process to understand chaos. Chaos came quickly that barely even existed in the VUCA world. As such, the leader must be quick and able to adjust to the trivial details of the chaos to make more informed and better business decisions. Bennett and Lemoine (2014 ) write about the complexity of prolonged problems faced by the company. Companies are required to overcome this complexity by connecting the trouble spots. All that has to be done is to solve these problems and solve them one by one with the specialization developed. Restructuring the inside of the company's operations to deal with the complexity of the external company as effectively and efficiently as possible in dealing with the complex elements of VUCA.

#### 4. Ambiguity

One of the highlights in this element is that the depiction of the business field is becoming increasingly blurred. In this era, there are many new business players whose presence is unpredictable. Old business players who initially didn't touch compete took the same "food", so they could be categorized as competitors. A clear example of unclear business barriers is the business expansion carried out by online motorcycle taxi providers in Indonesia. Businesses that run online motorcycle taxi on initially compete with motorcycles base. But over time, online motorcycle taxi providers have added other services such as services for delivering goods that are slowly destroying the market share of couriers and freight forwarders. Even old business players have to innovate and change business strategies if they want their business to survive ( Rachmawati, 2018; Isna,2018 ). Lawrence ( 2013 ) states that confusion can be overcome with agility. Leaders must have the ability to communicate throughout the organization and be quick to implement solutions. Understanding, clarity, and agility are not mutually exclusive but are interrelated elements that help leaders become strong VUCA leaders. Bennett and Lemoine (2014) write ambiguity, a blurring of reality that can lead to misunderstanding in various conditions. The risk that the company will face due to ambiguity in decision making is based on a limited understanding. For that, companies need to carry out experiments, simulations, test hypotheses, and make prototypes to get an accurate picture of the results. This can avoid the wrong steps in decision making. An experiment is needed in dealing with elements of ambiguity. Only smart corporate leaders can determine whether future company strategy is profitable or not where it has previously been applied to repeated trials, so the element of ambiguity in VUCA can be faced.

**Table 1: Differences in the VUCA framework**

	<i>What is that?</i>	<i>How to Solve it Effectively?</i>
<i>Volatile</i>	The unstable and unpredictable pattern	- Vision - Agility
<i>Uncertainty</i>	Lack of knowledge; cause and effect understood	- Understanding - Information
<i>Complexity</i>	It is difficult to understand the causes and mitigating factors	- Clarity - Restructuring
<i>Ambiguity</i>	Lack of 'ground rules of the game'; cause and effect not understood	- Agility - Experimentation

Source: Lawrence ( 2013 )



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### *Leadership Styles for Handling VUCA Situations*

The role of leaders is very important in complex changes because they are the ones who lead and manage these complex changes. Leaders without vision create confusion because they lack direction. Leaders need to have the skills to commit to a vision, motivate employees, communicate effectively, the ability to try different strategies, and the ability to make good decisions. If these skills are not there, it will cause anxiety, due to a lack of knowledge or skills to apply or deal with new situations. Furthermore, intrinsic or extrinsic incentives are essential ingredients in the change process. Therefore, if there are no incentives, there will be a high level of resistance from people who have no benefit in the change process. Leaders need to have a coordinated action plan. Without it, the organization will go nowhere and consume a lot of energy. (Thebe, 2017)

Style of transformational leadership very important when managing change in a complex, because the leader's vision can give directions to its members with the motivation to work harder and do more than expected to achieve organizational goals. Moreover, leaders need to have a tremendous personality, capable of taking a risk and know exactly what to do and improve the team spirit within the organization. This is especially important in uncertain situations where past problems and events cannot predict the future accurately. This makes it very difficult to identify and prepare for "what's coming next", as well as challenges in decision making. (Thebe, 2017)

Leaders need to find ways to make their vision clear and understandable to every employee, to follow the plan, and to feel the support in them. Because if employees are not optimistic, they will not do the job and make sacrifices. Furthermore, listening to employees' needs, understanding, expressing a belief in individual abilities, effectively motivating them to work harder to achieve the desired results. Leaders need to motivate employees to excel at their jobs through passion and words of encouragement that will make them realize the way, the important role they are playing in future organizational growth. (Thebe, 2017)

Manders (2014) looked at four things about the world VUCA in the future, namely: the world would be worse in the future, the world will be faced danger and opportunity, leaders must learn new skills to make up a better future, The world needs more leadership development and executive training. Johansen (2012) writes that leaders must have a vision, understanding, clarity, and agility.

A turbulent situation can only be mitigated if the leader has a clear and simple vision to realize. Vision is something you want to embody the future. Vision is what distinguishes a leader and a follower. Business leaders must have a clear vision for their company. That way, the direction and goals of the company will be clear and will be less affected by external events. (Johansen 2012)

After determining the vision, business leaders need to understand the company's capabilities and strategies to realize that vision. He must be able to bring the company to get profit, even though circumstances change rapidly as if he wants to bring down his company. Organizational leaders in the VUCA era should not only listen to information and views that match their views. He must take advantage of various information and opinions from various points of view. The leaders should have to include customers, employees, and other interested parties to make sure they move to the vision of the same. Understanding of changes and things that need to be prepared to deal with them needs to be understood properly. (Johansen 2012)

Clarity is the ability of a person to see the future with a clear and confident about who is not seen by others. A leader has the ability that is very clear about what is being made to realize his vision but is very flexible about how to make it. Leaders with clarity have authentic future intentions. That is, they remain true to the purpose of his/her. For long-lasting leadership, clarity is very important in facing the VUCA era. The good and bad sides of clarity will become even more evident in the world of the future. (Johansen 2012)

Agility must be attached to leaders in the present era is facing changes, changing consumer demands, and new developments that suddenly appear. If the leader is not agile, he will lose, if it is difficult to



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change it will be destroyed. The skill to develop one's mind and abilities or to learn is needed to have more comprehensive and strategic thinking to develop an organization. In this VUCA era, an agile leader is needed, namely an agile leader. Agile leaders are those who can adapt quickly to changes in their environment. This agile leadership needs to be continuously developed and becomes a mindset that is owned by every human resource in the organization. The important thing to belong to the leader is the ability to identify problems or opportunities, and then follow it up with agile moves. This must be done continuously adaptively to achieve the desired success goals. (Johansen 2012)

### 5. CONCLUSION

The world today is experiencing rapid changes, the business environment is volatile, thus putting the current situation into a 'new normal'. New normal is a change in people's behavior due to a prolonged crisis. The COVID 19 pandemic has changed the behavior of people, organizations, and stakeholders. This not only brings short-term survival in uncertainty but also the backdrop for the enormous challenges facing organizations to survive in the future. The challenges caused by the COVID-19 pandemic are very relevant to the current volatile world development, full of uncertainty, complexity, and ambiguity (VUCA).

Many organization that does not understand or in difficult situations of VUCA. Each of these components poses unique challenges that can be faced with Vision, Understanding, Clarity, and Agility. Therefore, the organization must be able to identify any problems that arise, because each component requires a separate and unique response. Leaders are change agents who play an important role in managing, initiating, and implementing change.

Vision gives leaders a clear idea of what they want and where they want to take the company in times of change, crisis, or even in conditions that are severe, uncertain, and complex. Uncertainty arises from a lack of adequate information. Therefore, a simple way to deal with uncertainty is to obtain information from different networks from inside or outside the organization. Restructuring the internal organization's operations need to be adapted to the environment is how to efficiently and effectively to cope with complexity. Agility is the key to the decision making process. Furthermore, all components of vision, skills, incentives, resources, and planning, are essential actions simultaneously in managing complex change successfully in any organization.

In general, business strategy after COVID-19 is no longer about defeating competitors, but more about how businesses can contribute to jointly fighting social, economic, political, and other woes. There is a need for outstanding cooperation between businesses, as well as between the private and public sectors, between business and society, and broad stakeholder collaboration.

Companies that can survive in the era of new normality are companies that can combine aspects of vision, competence, incentives, culture, which are strengthened by the company's initiation in building innovation to continue to grow in achieving its business goals. Therefore, companies need to consider all risks in every decision making when dealing with dynamic changes.

This paper has many limitations because it has not looked at cases related to the topics and theories presented. It is hoped that further research can see several cases at various levels, in small, medium, large and even multinational companies in facing the VUCA world, especially how leaders overcome organizational crises due to the Covid 19 pandemic.

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## THE EFFECT OF GOVERNMENT INTERNAL CONTROL SYSTEM, WHISTLEBLOWING SYSTEM, AND PROFESSIONAL INTERNAL AUDITORS SKEPTICISM ON THE FRAUD PREVENTION OF FINANCIAL REPORTING

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### Abstract

**Purpose.** This study aims to analyze the perceptions of government employees in government agencies regarding the tendency of financial statement fraud by testing and analyzing the effect of the government's internal control system, whistleblowing system and professional skepticism of internal auditors on the prevention of government financial statement fraud Musi Rawas Regency, Lubuk Linggau City and North Musi Rawas Regency.

**Research Methodology.** The sample in this study based on criteria using Stratified Random Sampling as many as 115 people. This research uses a descriptive qualitative approach by collecting data using survey methods through questionnaires. Testing the hypothesis in this study using multiple linear regression analysis.

**Results.** The results showed that the internal control system of the government, the whistleblowing system and professional skepticism of internal auditors simultaneously had a significant positive effect whereas individual professional skepticism of internal auditors did not affect the prevention of financial statement fraud in the Musi Rawas Regency, Lubuk Linggau City and North Musi Rawas Regency.

**Limitations.** This study focused on government internal auditor. Survey method with a questionnaire not an interview

**Contribution.** This study expects local governments to establish policies in managing financial reports more clearly and transparently

**Keywords:** *Government Financial Reports, The Government's Internal Control System, Whistleblowing system And Professional Skepticism Of Internal Auditors, Prevention Of Fraud.*

### 1. INTRODUCTION

The current system of regional autonomy, local governments gain authority, policy discretion, and sources of financing. Power is often followed by opportunities for corruption, resources that move hands to the regions become the door for opening corruption. Everything that enters the region, but is not managed properly will have an impact on poor public services and budget crime practices. Fraud is a deliberate lie, untruthful reporting of company assets or manipulation of financial data for the benefit of those who manipulate it [1]. Fraud prevention can be done by maximizing the role of internal control and supervision of internal auditors. The Government's Internal Control System in Indonesia was adopted from the COSO (The Committee of Sponsoring Organizations of the Treadway Commission) aimed at improving organizational performance and governance by using Integrated Risk Management (Enterprise Risk Management), Internal Control (Internal Control) and Prevention of Fraud ( Fraud Deterrence). To maximize the role of the internal control system in realizing the creation of Good Corporate Governance, the National Governance Policy Committee (KNKG) issued a Violation Reporting System known as the Whistleblowing System in 2008. With



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these two control systems and the active role of the internal auditor as the supervision team, all forms of whistleblowing system and fraud can be detected more quickly so that the risk of loss can be minimized. Cases of financial statement fraud occur at the district and city level throughout Indonesia. The occurrence of fraud can be preceded by symptoms of fraud such as, suspicious documentation. One person's motivation for committing fraud is explained by Wolfe & Hermanson (2004) in Fraud Diamond's theory where fraud is caused by four factors namely pressure, opportunity, rationalization and capability. These four factors are used by fraudsters when the internal control of an entity is at a weak point. There is a lack of internal control and supervision such as lack of honesty, regulations and weak work performance so that perpetrators of fraud can freely open up opportunities to commit fraud.

Research conducted by Chandra & Ikhsan (2015), Shintadevi (2016), Dewi & Ratnadi, (2017), Kadek, Ariastini, Yuniarta, & Kurniawan, (2017) dan Purnomo & Khafid (2017) stated that the Government's Internal Control System (SPIP) and integrity negatively affect the tendency of financial statement fraud. Likewise Kusumastuti (2012), Mustika, Hartuti, & Heriningsih (2016) concluded that the effectiveness of internal control had no effect on the occurrence of fraud. In contrast to the research Nisak, Prasetyono, & Kurniawan (2013), Joseph, Albert, & Byaruhanga (2015), Syarif (2016), Cendikia, Syahza, & Trisnawati (2016) dan Alou, Ilat, & Gamaliel (2017) stated that the effectiveness internal control system influences the prevention of fraud, with a high level of effectiveness in internal control, the more it can prevent and even reduce the level of inclination of fraud.

Research by Nugroho, Alfi Haris Wanto, & Trisnawati, (2015), Agusyani, Sujana, & Wahyuni (2016), Kadek, Ariastini, Yuniarta, & Kurniawan (2017) show that whistleblowing play an effective role in preventing fraud. According to research from Fullerton & Durtschi (2005), Hurtt, Eining, & Plumlee (2010), Anggriawan (2014) and Pramudyastuti (2014) in their research stated that professional skepticism influences the ability of auditors to detect fraud. Internal auditors with a higher degree of skepticism have greater ability to obtain information on fraud.

In 2017 there was an error in classifying the budget for 8 OPD in Lubuk Linggau City which reached Rp 3.2 Billion Rupiah (Putra, 2019). Then in 2018 there was a case of construction of a State Community Academy (AKN) building in North Musi Rawas Regency with a budget value of Rp 8.5 Billion [21]. In 2019, a case of alleged misconduct occurred in the Tilawatil Quran and Hadith Selection (STQ-H) activities that took place in North Musi Rawas Regency on April 24-30, 2019, with an estimated budget fraud of more than 7 billion [22]. Lubuklinggau City and North Musi Rawas Regency are new districts as a division of Musi Rawas Regency. As the parent of its expansion, Musi Rawas Regency has not escaped various cases of fraud. In 2008 there was a corruption case in which the use of the Musi Rawas regency budgetary post of Rp1.8 billion was set aside for the interests of the council as a legislative body [23].

Based on the phenomena and problems that occur, researchers are motivated to dig up information on issues regarding the influence of the government's internal control system, whistleblowing system and auditor professional skepticism that is expected to prevent financial statement fraud that occurs due to lack of internal control and supervision of the management of regional financial statements, ability Internal auditors' skepticism that is not maximized which causes the financial statements are not in accordance with applicable standards and regulations as outlined in the study entitled The Effect of Government Internal Control Systems, Whistleblowing System and Internal Auditor Professional Skepticism Against the Prevention of Fraud Financial Statements in Musi Rawas Regency, Lubuk linggau City and North Musi Rawas Regency.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This study uses fraud diamond theory as the main theoretical basis. Fraud diamond theory proposed by Wolfe & Hermanson (2004) which is a refinement of the fraud triangle theory proposed by Cressey in 1953. This theory states that fraud is caused by four factors, namely pressure, opportunity,



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rationalization ) and capability (capability). The ability in question is the nature of individuals committing fraud, which encourages them to look for opportunities and take advantage of them. Opportunity to be an entry access to cheating, pressure and rationalization can attract someone to commit fraud, but the person must have good ability to recognize the opportunity to be able to carry out cheating tactics appropriately and get maximum profit.

According to Jensen & Meckling (1976) explain agency theory (agency theory) that the company is a collection of contracts (nexus of contract) between the owners of economic resources (principal) and managers (agents) who take care of the use and control of these resources. Budgetary fraud in government is caused by the government acting as an agent who is morally responsible for optimizing the benefits of the community as principals, but on the other hand the government also has an interest in maximizing their welfare [25].

Government financial reports are used to determine the value of economic resources that are used to carry out government operational activities, assess financial conditions, evaluate the effectiveness and efficiency of a reporting entity and help determine compliance with legislation [26]. This financial statement aims to provide information regarding the financial position, performance and changes in the financial position of a government that is useful for a large number of users of financial statements in making economic decisions. Financial reports must be prepared periodically for interested parties [27].

Government Internal Control System According to the Committee of Sponsoring Organization in 1992 (COSO) in BPKP (2014) explained that Internal Control is a process that is influenced by the board of commissioners of an entity, management, and other personnel, which includes policies and procedures created by to provide management so that the organization can achieve the objectives of reliable financial statements, effectiveness and efficiency of operations, compliance with laws and regulations. Based on Government Regulation No. 60 of 2008. PP No. 60 of 2008 states that the Internal Control System is an integral process of actions and activities carried out continuously by leaders and employees to provide adequate confidence in the achievement of organizational goals through the reliability of financial reporting, securing state assets, effective and efficient activities, and compliance with applicable laws and regulations.

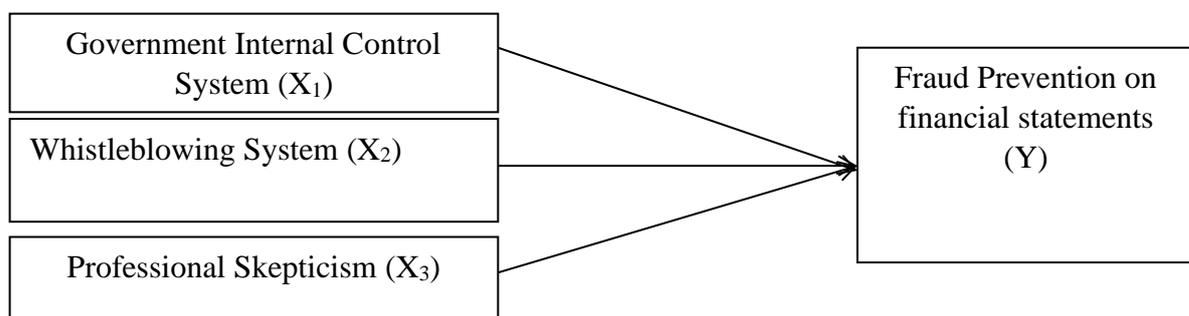
The whistleblowing system discloses information that is suspected to be illegal, illegitimate or immoral, under the control of employees to a higher level of management as an internal party, external authorities and to the public who may be able to influence actions [28]. The term whistleblowing in Indonesia is identified with a forum for someone to report fraudulent acts in an organization. Efforts to encourage the role of whistleblowers can be started from the workplace, such as private companies, government institutions and the public. The protection that needs to be given is physical protection and legal protection [29].

Professional Standards for Public Accountants [30] explain that professional skepticism is an attitude that always questions and evaluates audit evidence critically. In SPAP section 230 [30], professional skepticism is an element contained in the third General Standard regarding the use of professional skills carefully and thoroughly in carrying out the work of auditors (due professional care) which is an important component in the audit process. In addition to improving audit quality and detecting fraud, auditor professional skepticism also plays a role in preventing fraud. The auditor must plan and carry out the audit process based on professional skepticism by being aware of the possibility of material errors in the financial statements. Fraud in financial reporting is explained in the statement of Public Accountant Professional Standard No. 70 namely misstatement or deliberate omission of amounts or disclosures in the financial statements to deceive the users of the financial statements in the effects arising is the discrepancy of financial statements, in all material respects with generally accepted accounting principles. In every government there are several reasons for cases of fraud and fraud due to poor governance so that it can allow a person or group of people with similar interests to take advantage of fraudulent activities in the organization [31].

### 3. RESEARCH METHODOLOGY

This study aims to analyze the perceptions of government employees in government agencies regarding the tendency of financial statement fraud by testing and analyzing the effect of the government's internal control system, whistleblowing system and professional skepticism of internal auditors on the prevention of government financial statement fraud Musi Rawas Regency and Regional Expansion. This research was conducted because there were many cases of fraud in government agencies in managing regional finances involving government officials.

The conceptual framework is made in the form of a schematic drawing to further explain the relationship between the independent variable and the dependent variable. For this reason, this research is formulated in the framework of the picture as follows:



**Figure 1: Conceptual Framework**

Source: Data process, 2020.

Research hypothesis of this article:

1. H1: The government's internal control system positively influences the prevention of financial statement fraud
2. H2: The whistleblowing has a positive effect on preventing financial report fraud
3. H3: Professional Skepticism of Auditors has a positive effect on the prevention of financial statement fraud

This research will be conducted on SKPD in three districts, namely Musi Rawas Regency, Lubuklinggau City and North Musi Rawas Regency. The data that will be used in this study are primary data and secondary data. Data collection methods that will be used in this study are questionnaires and documentation. The population used in this study is the total number of all 2019 civil servants in three city districts, which is 11,398 people. Sampling using a Stratified Random Sampling method. The sample in this study is employees with min assosiacate's degree education background and authority as budget users, accounting organizers and accountability report makers. Musi Rawas Regency has 35 people, Lubuk Linggau City has 45 people, and North Musi Rawas Regency has 35 people so that the total sample is 115 people. Hypothesis testing of this study uses multiple linear regression statistical techniques. The equation of the multiple regression analysis in this study is as follows:

$$PK = a + b1.SPIP + b2.SPP + b3.SPA + e$$

Where:

PK = Variable Prevention of Fraud Regional Financial Statements

a = constant

b = coefficient

SPIP = Government Internal Control System Variable

SPP = Whistleblowing Variable



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SPA = Auditor Professional Skepticism Variable  
e = Error

## 4. RESULTS AND DISCUSSIONS

Data quality resulting from the use of research instruments can be evaluated through validity and reliability testing. The tests are each to determine the consistency and accuracy of data collected from the use of instruments [32]. Validity Test shows the value of  $r_{count} > r_{table}$  that is  $r_{count} > 0.1816$ . And the reliability test results show the value of Cronbach's alpha for each variable is above the limit of 0,700. It was concluded that all variable instruments in this study had fulfilled valid and reliable criteria. Classic assumption test shows the value of the statistical test (Kolmogorov-Smirnov test) is 0.070 with an Asymp.sig (2-tailed) value of 0.200 which is greater than  $\alpha = 0.05$ . So it can be concluded that the residual data are normally distributed. Each variable has a tolerance of more than 0.10 ( $> 0.10$ ) and a VIF value of no more than 10 ( $< 10$ ), so it can be concluded in this model that there are no symptoms of multicollinearity. To detect the autocorrelation symptoms, the writer used the Durbin Watson test (D-W) and, the Durbin Watson, value of 1,789, was in the criteria of  $du < DW < 4-du$  ( $1.73129 < 1,789 < 2,211$ ). This shows there was no autocorrelation in the regression model used.

**Table 1: The Result Of Hypothesis Test**

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
	1 (Constant)	0,600	0,349		1,720
Government Internal Control System	5,609	0,584	0,665	9,610	0,000
Whistleblowing	0,174	0,086	0,140	2,036	0,044
Professional Auditor Skepticism Internal	0,011	0,073	0,010	0,146	0,884

a. Dependent Variable: Fraud Prevention in Financial Institution

Source: Processed by the writer, 2020

For the effect of government internal control system (SPIP) on prevention of financial statement fraud T test results for the variable Government Internal Control System, obtained t count results of 9,610 > 1.98118 with a significance of 0,000 < 0.05, these results indicate rejected for H0.

So that the influence that occurs between the application of the Government Internal Control System variable significantly influences the prevention of financial statement fraud. It is known that the regression coefficient value of the Government Internal Control System is 5.609 has a positive value, this shows the variable Government Internal Control System has a positive impact on fraud prevention. The higher the Government's Internal Control System is implemented, the more it can prevent financial report fraud in the District of Musirawas and its divided cities. The government of Musirawas Regency, Lubuklinggau City and North Musi Rawas Regency have implemented the government internal control system quite well as there is already a clear division of authority, there is clear supporting evidence for each financial statement record, there is a direct physical inspection, all forms of information are carried out in the accounting system and regular periodic evaluations are carried out.

The results of this study are consistent with the theory of Sawyer (2005), namely the function of the internal control system to prevent, detect things that are not desirable and lead to things that are desired. Mustikasari (2013), Irawan (2016) also revealed that the government's internal control system had a positive effect on fraud prevention. Five elements of the government's internal control system which includes the control environment, risk assessment, control activities, information and



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communication, and monitoring are needed in regional governance to safeguard assets, provide reliable information, encourage compliance with policies so that they can contribute to the maximum so they can avoid various cheating deviations. Implementation of an effective system of government internal control is expected to reduce agency problems in local government.

Based on the results of the t test for the whistleblowing system variable, the results obtained t count of  $2.036 > 1.98118$  with a significance of  $0.044 < 0.05$  then these results indicate  $H_0$  is rejected. So that the Implementation of the whistleblowing system variable significantly influences the prevention of financial statement fraud. It is known that the regression coefficient value of the Whistleblowing variable is 0.174 positive value, this shows that the Whistleblowing variable has a positive impact on fraud prevention. The more the implementation of the whistleblowing system, the more it can prevent fraudulent financial reports in the District of Musirawas and its divided cities. As a new autonomous region (DOB) from the Induk Musirawas District, Lubuklingau City and North Musi Rawas Regency continue to disseminate information on the Acceleration of the Implementation of LAPOR-SP4N. The application of this report has greatly helped the role of the APIP (regional Inspectorate) in monitoring and overseeing any fraud that occurs in government agencies.

Research of Nugroho (2015) states that the whistleblowing system has a significant effect on fraud prevention. According Agusyani (2016) that the whistleblowing system also has a positive effect on fraud prevention. The effectiveness of the whistleblowing system plays an important role in minimizing the fraudulent actions of local government officials in managing their regional finances. Therefore the community needs to monitor the behavior of the local government (agent) so that it can hinder or limit actions aimed at enriching oneself (government officials) at the expense of the interests of other communities (principal).

The Effect of Professional Auditor Skepticism on the Prevention of Financial Statement Fraud result based on the estimation of the multiple regression equation, the regression coefficient obtained from the Internal Auditor Professional Skepticism is 0.011 with a significance level of  $0.884 > 0.05$  and the value of the t value is  $0.146 < 1.98118$ , these results indicate  $H_0$  accepted then rejected for  $H_a$ .

Variable Skepticism of Internal Auditors individually does not significantly influence the prevention of financial statement fraud. But together with the Government's Internal Control System variable and the Whistleblowing variable, the Internal Auditor Professional Skepticism variable simultaneously has a significant effect on preventing financial report fraud in Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency. This can be seen from the significance value of 0,000. The significance level is below 5% ( $\alpha = 0.05$ ) and the F count is  $38.301 >$  the F table is 2.69. To implement effective professional skepticism, it is necessary to form the perception that even with the best internal control systems, there will still be gaps and allow for fraud.

The Government's Internal Control System, Whistleblowing system, and Professional Internal Auditor Skepticism, has an effect of 50.9% on the prevention of financial statement fraud while the prevention of financial statement fraud can be explained by other factors not tested in this study by 49.1% . The Government Internal Control System, Whistleblowing system, and Professional Skepticism of Internal Auditors simultaneously had a significant positive effect on the prevention of financial statement fraud in Musi Rawas Regency and its pemekaran. This shows that every time there is an increase in activity in the government internal control system, whistleblowing, and professional auditor's skepticism, internal auditors will increase the activity of preventing the fraudulent financial statements of the local government.

Only government internal control system variables and whistleblowing have a positive effect on preventing financial statement fraud. While the Internal Auditor Professional Skepticism variable does not affect the prevention of financial statement fraud in Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency. This shows that Musirawas Regency and its regional expansion have applied all elements of control contained in the SPIP in every action and activity



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continuously by all employees and agency leaders, as well as the whistleblowing which has been applied even though it has not been maximized. Internal auditor professional skepticism has no significant effect because the level of risk in an audit process almost every audit decision depends on the decision of the auditor team leader.

### 5. CONCLUSIONS

Based on the results of the analysis and testing of hypotheses regarding the government supervision system, the reporting system and professional skepticism of the internal auditors on the financial disagreement in the administration of Musi Rawas district and the area of expansion, it can be concluded that the Government's Internal Control System, the Reporting System of Violations, and Professional Skepticism of Internal Auditors, has a contribution of 50.9% to the fraudulent financial statements while increasing the fraudulent financial statements can be supported by other factors related to this research amounting to 49, 1% .

The Government Internal Control System, Reporting System of Violations, and Professional Skepticism of Internal Auditors simultaneously have a significant positive effect on financial accountability in Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency. This shows that every time there is an increase in activities in the government internal control system, violation reporting system, and professional skepticism of the internal auditors, it will increase reporting activities against fraudulent local government financial reports. The last The Government's Internal Control System, Reporting System of Violations, and Professional Skepticism of individual Internal Auditors does not significantly influence financial reporting fraud in Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency. Only government control system variables and approved systems that positively oppose financial statement fraud. While the Internal Auditor Professional Skepticism variable is not opposed to financial fraud in Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency. Musi Rawas Regency, Lubuk Linggau City, and North Musi Rawas Regency have applied all existing regulations in the SPIP in every activity and activities that are continuously carried out by all employees and management of the institution, as well as the reporting system that has been used even though it has not been maximized. Professional auditors Internal skepticism does not require great significance because the audit is important in every audit decision based on the decision of the auditor team leader.

### LIMITATION AND STUDY FORWARD

There are several limitations to this research, This study focused on government internal auditor. Survey method with a questionnaire not an interview

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## HERDING BEHAVIOUR INDICATORS AND INVESTMENT DECISIONS: EVIDENCE FROM INDONESIA AND MALAYSIA

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### Abstract

**Purpose:** This study aims to analyse the effect of stock returns, price earning ratio, market capitalisation, and book to market ratios as indicators of herding behaviour on investment decisions on the Indonesia and Malaysia stock exchanges.

**Research Methodology:** This study used Cross-sectional absolute deviation method to analyse herding behaviour and multiple linear regression analysis. The sample used in this study was nine sectors based on the Global Industry Classification Standard (GICS) during the period 2007-2016.

**Results:** The empirical analysis shows that the existence of herding behaviour only finds on the Indonesia Stock Exchange. This study proves the herding behaviour influential in making investment decisions.

**Limitations:** This study only used the top 5 companies based on total assets consisting of 9 sectors, so the result can't describe as a whole of the Indonesia and Malaysia market.

**Contribution:** This study is useful for seeing stock movements and market behavior, especially for investors in the market. Furthermore, this study was helpful in finance, especially the emerging market.

**Keywords:** *Stock return, Price earning ratio, Market capitalisation, A book to market ratio, Tobin's q, Cross-sectional absolute deviation.*

### 1. INTRODUCTION

Herding behaviour is perceived as one of the essential factors that affect investment decisions (Dar and Hakeem, 2015). It has happened on weak investment growth conditions, which is caused by the investor's biased behaviour in the investment decision-making process (Koller et al., 2011). In this ambiguous situation, and there is no trust in their ability to understand the overall market conditions, investors have a strong tendency to do what other people do (Kahneman, 2012).

Besides being objective, the decision-making process may also be subjective based on the investor's perspective influenced by psychological and emotional factors; this is due to the risk and uncertainty in the investment (Virlics, 2013). Investment decisions in the stock market can show a wide range of investor behaviour in determining investment decisions influenced by psychological factors (Dar and Hakeem, 2015; Waweru et al., 2008). One form of psychological factors influencing investor behaviour is herding behaviour (Dar and Hakeem, 2015).

Although the efficient stock market can provide investors' information, sometimes market complexity and uncertainty and the short period in taking advantage of opportunities are the main things to be taken into account in making decisions. This condition can make investors make biased decisions without studying the overall market situation and possible alternatives that can be taken (Ganesh et al., 2016).

The decision-making process by following others' actions or herding behaviour occurs in Asian and developed markets except for the United States and Latin America (Chiang and Zheng, 2010; Chiang et al., 2013). Asian markets tend to follow the news and form an investment strategy based on investors who have global investment information provided by Wall Street. At the same time, the absence of herding behaviour on the US stock market is caused by the various opinions from various reliable



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financial companies (Chiang and Zheng, 2010). As well on the Vietnamese stock market, there was an increase in herding behaviour in the post-crisis period. Investors refused to take risks on investment, which tended to follow other investors, especially institutional investors (Vo and Phan, 2016).

The existence of herding behaviour appears in the relationship between market return and return dispersion. Investors use the latter as a signal for investing in the short and long term, especially those who will set short-term strategies (Gorman et al., 2010). Also, prior studies showed a non-linear relationship between dispersion and returned market, in which cross-sectional absolute deviation became the proxy (Chang et al., 2000).

Based on the previous phenomenon and research, the purpose of this research is to know the existence of herding behavior by analyzing the relationship between return dispersion and market return based on sector, quartile of price-earnings ratio, market capitalization, and book to market ratio, and to strengthen the understanding research on the occurrence of herding behavior on the effect of Stock Return, Price Earning Ratio (P/E ratio), Market Capitalization and Book to Market in determining investment decision at Indonesia Stock Exchange and Malaysia in non-financial industry.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The investment decision is a policy or decision taken to invest capital in one or more assets to profit in the future. The quality of investment decision making is very influential in the success of the investment. Poor investment decision making has significant social consequences. It is necessary to understand the investor's psychology in avoiding mistakes and minimize their impact on investment decisions known as behavioural finance, i.e., psychology to understand the psychological factors of financial markets (Jhandir and Elahi, 2014).

One of the existences of financial behavior is that investors' bias behavior causes bias decisions to make decisions without studying the whole and only take some perspective of the situation and even reject the consideration of possible benefits from an alternative viewpoint (Ganesh et al., 2016). The behavior of bias can be shown through herding behavior activities that can cause the price to deviate from the fundamental value and create implications for the sales strategy and asset pricing model. In general, market factors are external factors but may affect investors' behavior in making investment decisions (Dar and Hakeem, 2015).

Herding behavior occurs when rational investors begin to be irrational by imitating other people's judgment in making decisions. It usually occurs on individual investors who following large group decisions or active trading actors (Kumar and Goyal, 2015). To know the existence of herding behavior, we need to see the relation of return dispersion and market return. Return dispersion can be used as a signal for investors who focus on short and long-term investments, especially investors who will set short-term strategies (Gorman et al., 2010). Herding behavior occurs when a non-linear relationship between return dispersion and market return (Chang et al., 2000).

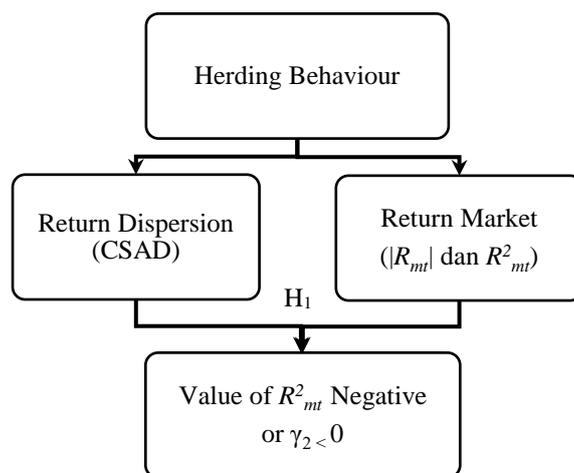
There are several factors that can show the existence of herding behavior that is stock return, price earning ratio, market capitalization, and book to market ratio. To know the indications of herding behavior, it is necessary to see the return dispersion where different stock market conditions can influence investment decisions, determined by individual stock return, market capitalization, earnings per share (EPS), and market to book value (Yao et al., 2014). The stock return can show the existence of herding behavior in the period before and after the financial crisis in 2007-2008 on Asian Stock Market (Chiang and Zheng, 2010; Hsieh et al., 2010).

As for other factors, the price-earnings ratio, the existence of herding behavior on the price earning ratio with the biggest quartile with a low rate of return shows that investor sentiment is likely to see on the company (Zhou and Lai, 2009). The existence of herding behavior can also occur to stocks with market capitalization with the smallest and largest quartile. In the smallest quartile, the existence of herding behavior is due to the lack of coverage of market analysis and the lack of public information available so that market participants make decisions based on market consensus. While in stocks with the largest

quartiles, the existence of herding behavior is due to higher trade volume, greater market analysis coverage, and faster response to good market news (Yao et al., 2014). This also occurs when the market is under pressure (financial crisis). The occurrence of herding behavior is related to the factor of company size (market capitalization) (Hassairi and Viviani, 2011).

Meanwhile, the existence of herding behavior is very strong on stocks with the smallest book to a market ratio (growing companies) and a small market capitalization (Yao et al., 2014). The same thing is shown by managers who do herding on stocks with small quartiles when stocks show lower transparency levels and assurance of information and ownership by institutions.

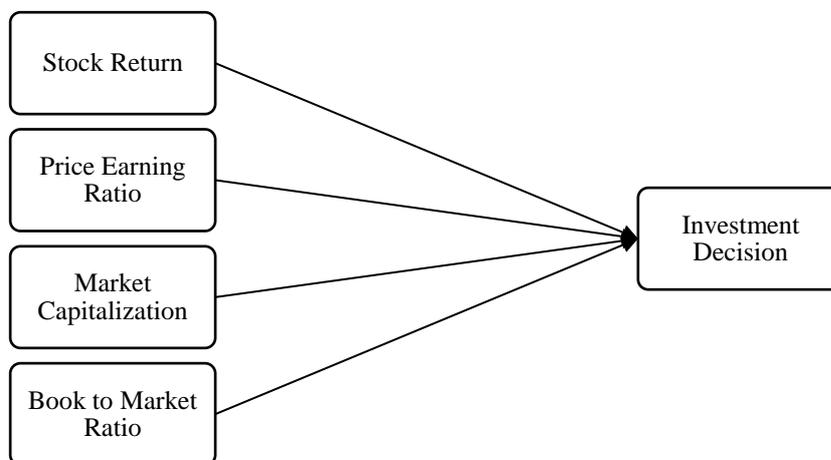
Based on the above theoretical framework, to analyze the existence of herding behavior in the Indonesia and Malaysia Stock Exchanges, it is carried out by cross-sectional absolute deviation, so the chart is arranged as follows:



**Figure 1: Theoretical Framework of Herding Behaviour**

Based on Figure 1 above, the existence of herding behavior is indicated by the existence of a non-linear relationship between dispersion of return and market return with a significant and statistically negative coefficient (Chang et al., 2000). The same thing in Yao et al. (2014) stated that herding behavior occurs when  $\gamma_2 < 0$  shows a significant negative value.

To illustrate the effect of stock return variables, price-earnings ratio, market capitalization, and book to market ratio on investment decisions are as follows:



**Figure 2: Theoretical Framework of Investment Decision**



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### 3. RESEARCH METHODOLOGY

This study uses all non-financial companies listed on the Indonesia and Malaysia Stock Exchanges during the period 2007-2016. The sample companies are classified based on the top 5 (five) non-financial companies based on the company's total assets for (10) ten years from 2007-2016 using a purposive sampling technique. The data is obtained from the Bloomberg terminal available at the library of the National Development Planning Ministry (BAPPENAS). The study consists of 9 sectors classified under the Global Industry Classification Standard (GICS) and in accordance with the use of industries available at Bloomberg Terminal (Bhojraj et al., 2003; Damschroder, 2009). The sector consists of communication, consumer discretionary, consumer staples, energy, health care, industrial, materials, technology, and utilities.

This study uses Tobin's Q as the dependent variable, daily and weekly stock price as stock return, and the composite stock price index of each country as the return market used to know herding behavior, price earning ratio, market capitalization, and book to the market ratio as a variable independent. To see the existence of herding behavior, it is necessary to test the correlation of return dispersion with a market return by using the cross-sectional absolute deviation (CSAD) method with the following formula (Chang et al., 2000):

$$CSAD_t = \frac{1}{N} \sum_{i=1}^N |R_{i,t} - R_{m,t}| \dots \dots \dots (1)$$

- $R_{i,t}$  = stock return i at time t
- $R_{m,t}$  = Market Return
- N = Number of companies in a portfolio

The estimation method used is Ordinary Least Square (OLS) using time series data, the following regression equation (Chang et al., 2000):

$$CSAD_t = \alpha + \gamma_1 |R_{m,t}| + \gamma_2 R_{m,t}^2 + \epsilon_t \dots \dots \dots (2)$$

- $\alpha$  : Intercept variable
- $\gamma_1$  : The linear coefficient between CSAD and market portfolio returns
- $\gamma_2$  : Non-linear coefficient between CSAD and market portfolio returns
- $R_{m,t}$  : Market portfolio returns in period t
- $\epsilon_t$  : Standard error

Herding behavior is indicated by the non-linear relationship between the dispersion of return and market return with a statistically significant and negative coefficient  $\gamma_2 < 0$  (Chang et al., 2000). Yao et al. (2014) convey the same thing that herding behavior occurs when  $\gamma_2 < 0$  denotes a significant negative value. A non-linear equation with  $\gamma_2$  is negatively negative would indicate that there is evidence of herding in the market. to strengthen the understanding of research how the effect of stock return, price-earning ratio, market capitalization and book to market ratio as a herding behavior indicators to investment decisions, the authors perform multiple linear regression analysis with panel data and estimation model is as follows:

$$TQ = \alpha + \beta_1 SR_{it} + \beta_2 PER_{it} + \beta_3 MC_{it} + \beta_4 BMR_{it} + \mu \dots \dots \dots (3)$$



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TQ	: Tobin's Q
A	: constants
$\beta_1, \beta_2, \beta_3, \beta_4$	: regression line coefficients
SR	: Stock Return
PER	: Price Earning Ratio
MC	: Market Capitalization
BMR	: Book to Market Ratio
i	: Cross section unit (company)
t	: Unit time series (quarter)
$\mu$	: Standard error

## 4. RESULTS AND DISCUSSIONS

### Descriptive Statistic Analysis

**Table 1: Descriptive Statistics of Companies in Indonesia and Malaysia Stock Exchange**

	Dependent Variable		Independent Variable		
	Tobin's Q	Stock Return	Price Earning Ratio	Market Capitalization	Book to Market Ratio
Descriptive Statistics					
<b>Indonesia</b>					
Observations	1680	1680	1680	1680	1680
SD	1.622799	0.290632	294.8627	5700.593	0.901674
Min	0.324307	-1.053000	-8731.800	0.408863	-5.707379
Max	14.97642	2.636000	4442.000	38111.08	6.744938
Median	1.454399	0.010000	14.67206	653.9862	0.472644
Mean	1.951767	0.041096	22.93430	2964.577	0.742907
<b>Malaysia</b>					
Observations	1800	1800	1800	1800	1800
SD	0.955841	0.194658	91.80574	3579.638	0.980285
Min	0.397644	-0.981000	-2582.974	6.977583	0.066415
Max	10.56121	1.670000	1924.998	23688.78	14.01302
Median	1.216476	0.019000	14.41438	1011.074	0.678041
Mean	1.503196	0.031581	13.41967	2615.371	0.953779

Table 1 shows the standard deviation value of Tobin's Q in the study year is smaller than the mean value by a small difference between the standard deviation and the mean. This indicates that the average Tobin's Q can represent the entire data because the deviations are not too big. While the variables SR, PER, MC, and BMR have a standard deviation greater than the mean value, the data varied with a large deviation. The value of this deviation occurs because the data tested and researched has a value that has a far range between large and small. After all, in this study, corporate data into a sample company consists of 9 sectors with different financial characteristics for each sector. The tendency of the difference in the value of each ratio is much different.



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Companies with an average value of Tobin's Q for Indonesia of 1.951767 and Malaysia of 1.503196 show average companies in Indonesia and Malaysia can provide a competitive rate of return on investment. Tobin's Q has a vital role in explaining its financial performance to determine strategy (Muhammad and Scrimgeour, 2016). Tobin's Q may reveal quality information about its performance to grow investment opportunities for the company (Badertscher et al., 2013).

### Regression Result

In testing this hypothesis, the authors analyzed two models of equations to determine the existence of herding behavior and the influence of stock return, price earning ratio, market capitalization, and book to a market ratio of investment decisions. The results of hypothesis testing are as follows:

Hypothesis 1: There is an Existence of Herding Behavior in Indonesia and Malaysia stock exchange.

Based on the regression analysis using cross-sectional absolute deviation found the existence of herding behavior which showed the value of coefficient  $\gamma_2$  significant and negative statistically with the value  $\gamma_2 < 0$  as follows (Chang et al., 2000):

**Table 2: Cross-Sectional Absolute Deviation**

Regression Result of Daily CSAD<sub>t</sub> at Industry Level

Industry	N	$\alpha$	$\gamma_1$	$\gamma_2$	Adj. R <sup>2</sup>
<b>Indonesia</b>					
1. All Sector	1680	0.026150 (0.0000)	-0.597556 (0.0000)	18.60277 (0.0000)	0.050258
2. Communication	200	0.028343 (0.0000)	-0.728166 (0.0008)	19.50197 (0.0002)	0.057999
3. Consumer Discreatinary	200	0.024913 (0.0000)	-0.619235 (0.0043)	18,63440 (0.0004)	0.061184
4. Consumer Staples	200	0.023468 (0.0000)	-0.615187 (0.0004)	20.37775 (0.0000)	0.136433
5. Energy	200	0.028727 (0.0000)	-0.524243 (0.1315)	15.73330 (0.0633)	0.010297
6. Health Care	200	0.024162 (0.0000)	-0.495461 (0.0142)	16.76101 (0.0007)	0.071958
7. Industrial	200	0.034161 (0.0000)	-1.176077 (0.0000)	31.33846 (0.0000)	0.111960
8. Material	200	0.024341 (0.0000)	-0.749177 (0.0000)	25.66503 (0.0000)	0.289906
9. Technology	200	0.023031 (0.0000)	0.025450 (0.9471)	2.248172 (0.8098)	-0.005741
10. Utiities	80	0.021294 (0.0000)	-0.343436 (0.4778)	15.00803 (0.2041)	0.023951
<b>Malaysia</b>					
1. All Sector	1800	0.018563 (0.0000)	-0.013673 (0.9031)	1.175122 (0.8248)	-0.001057
2. Communication	200	0.021826 (0.0000)	0.006736 (0.9825)	-0.156217 (0.9914)	-0.010146
3. Consumer Discreatinary	200	0.018954 (0.0000)	0.283833 (0.3585)	-13.77009 (0.3458)	-0.005528
4. Consumer Staples	200	0.014552 (0.0000)	0.084797 (0.6660)	-5.392844 (0.5613)	-0.007977
5. Energy	200	0.014552 (0.0000)	0.084797 (0.6660)	-5.392844 (0.5613)	-0.007977



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6. Health Care	200	0.018886 (0.0000)	-0.198262 (0.5501)	11.43618 (0.4658)	-0.007178
7. Industrial	200	0.016264 (0.0000)	0.097555 (0.6975)	-1.638029 (0.8901)	-0.007501
8. Material	200	0.017389 (0.0000)	-0.032982 (0.9100)	3.739927 (0.7862)	-0.009044
9. Technology	200	0.028861 (0.0000)	-0.104115 (0.8417)	3.576023 (0.8846)	-0.009886
10. Utilities	200	0.015429 (0.0000)	-0.119107 (0.5478)	8.520398 (0.3631)	-0.003668

### Regression Result of Weekly CSAD<sub>t</sub> at Industry Level

Industry	N	$\alpha$	$\gamma_1$	$\gamma_2$	Adj. R <sup>2</sup>
<b>Indonesia</b>					
1. All Sector	1680	0.010290 (0.0000)	0.045548 (0.0005)	-0.233119 (0.0064)	0.006805
2. Communication	200	0.028343 (0.0000)	-0.012327 (0.6947)	0.385952 (0.0624)	0.055050
3. Consumer Discretionary	200	0.010360 (0.0000)	0.029295 (0.4216)	-0.263160 (0.2718)	-0.002806
4. Consumer Staples	200	0.009311 (0.0000)	0.060624 (0.0162)	-0.344865 (0.0369)	0.019441
5. Energy	200	0.011862 (0.0000)	0.019496 (0.6847)	-0.052334 (0.8681)	-0.008062
6. Health Care	200	0.008729 (0.0000)	0.083353 (0.0027)	-0.461713 (0.0111)	0.036231
7. Industrial	200	0.011240 (0.0000)	0.099335 (0.0052)	-0.636511 (0.0063)	0.030230
8. Material	200	0.008436 (0.0000)	0.072567 (0.0013)	-0.447007 (0.0025)	0.041850
9. Technology	200	0.010998 (0.0000)	0.034885 (0.5447)	-0.124761 (0.7414)	-0.006801
10. Utilities	80	0.011003 (0.0000)	-0.011561 (0.8631)	-0.034497 (0.9375)	-0.021255
<b>Malaysia</b>					
1. All Sector	1800	0.007637 (0.0000)	-0.018773 (0.0268)	0.398959 (0.0026)	0.006624
2. Communication	200	0.009567 (0.0000)	-0.056224 (0.3537)	0.744943 (0.4311)	-0.005477
3. Consumer Discretionary	200	0.008268 (0.0000)	-0.015090 (0.8157)	0.394684 (0.6963)	-0.008656
4. Consumer Staples	200	0.001455 (0.0132)	0.084014 (0.0897)	-0.852372 (0.2692)	0.013858
5. Energy	200	0.005865 (0.0000)	0.023072 (0.6023)	-0.257786 (0.7092)	-0.008222
6. Health Care	200	0.007858 (0.0000)	0.050183 (0.5319)	-0.219322 (0.8610)	-0.001332
7. Industrial	200	0.006478 (0.0000)	0.030427 (0.6068)	0.071613 (0.9381)	0.003826
8. Material	200	0.006712 (0.0000)	0.077002 (0.2018)	-0.592123 (0.5289)	0.010958
9. Technology	200	0.010619 (0.0000)	0.051643 (0.5960)	0.267301 (0.8605)	0.009407
10. Utilities	200	0.006315 (0.0000)	0.005395 (0.9101)	0.374266 (0.6159)	0.004816



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Table 2 shows the existence of herding behavior in the Indonesian stock exchange based on a weekly cross-sectional absolute deviation (CSAD) calculation using weekly stock price. At the coefficient value,  $\gamma_2$  in all sectors show the negative and non-linear relationship between the return dispersion and the market return, i.e., -0.233119. This is in accordance with Vo and Phan (2016) and Yao et al. (2014), which states herding behavior results in a non-linear relationship between return dispersion and return. Thus herding proves that investors tend to observe and follow market consensus during fluctuating market periods and ignore the information they have because they believe other investors have more precise signals.

Table 2 also shows herding behavior that occurs in the consumer staples, health care, industrial and material sectors. Henker et al. (2006) found herding more prevalent in materials, consumer staples, and finances. Litimi et al. (2016) found herding behavior in 6 sectors, namely consumer non-durables, energy, health care, public utilities, technology, and transportation that occurred during the crisis period by looking at the relationship of return dispersion and market return, and trading volume and investor sentiment to market information. Ouarda et al. (2013) stated that the effect of asymmetric information on trading volume resulted in high volatility compared to trading volume. This is similar to the existence of herding behavior can strengthen market volatility, create unstable financial markets and increase the fragility of financial markets, as well as errors in the valuation of stock prices (Filip et al., 2015).

**Table 3: Cross-Sectional Absolute Deviation Based on Indonesia Region Ratio**

*Panel A: Price Earning Ratio*

	Quartile			
	1 (Small)	2	3	4 (Big)
<i>Based on daily data</i>				
N	440	400	440	400
A	0.026070 (0.0000)	0.022364 (0.0000)	0.024272 (0.0000)	0.031218 (0.0000)
$\gamma_1$	-0.382429 (0.0083)	-0.475949 (0.0009)	-0.576456 (0.0000)	-0.832378 (0.0000)
$\gamma_2$	13.33826 (0.0083)	17.23244 (0.0000)	18.67893 (0.0000)	21.96595 (0.0000)
Adjusted R <sup>2</sup>	0.020179	0.080048	0.080298	0.045996
<i>Based on weekly data</i>				
N	440	400	840	400
A	0.010581 (0.0000)	0.008757 (0.0000)	0.009301 (0.0000)	0.012228 (0.0000)
$\gamma_1$	0.057770 (0.0526)	0.062604 (0.0057)	0.045160 (0.0027)	0.026872 (0.3599)
$\gamma_2$	-0.266558 (0.1726)	-0.421413 (0.0060)	-0.234985 (0.0202)	-0.179066 (0.3347)
Adjusted R <sup>2</sup>	0.006179	0.015029	0.009287	-0.002670

*Panel B: Market Capitalization*

	Quartile			
	1 (Small)	2	3	4 (Big)
<i>Based on daily data</i>				
N	440	400	440	400
A	0.027458 (0.0000)	0.028179 (0.0000)	0.026663 (0.0000)	0.022126 (0.0000)



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$\gamma_1$	-0.382182 (0.1046)	-0.699153 (0.0006)	-0.693838 (0.0000)	-0.637083 (0.0000)
$\gamma_2$	10.88592 (0.0577)	20.68990 (0.0000)	22.02618 (0.0000)	21.68952 (0.0000)
Adjusted R <sup>2</sup>	0.004304	0.044136	0.121232	0.240045

	Quartile			
	1 (Small)	2	3	4 (Big)
Based on weekly data				
N	440	400	440	400
A	0.011535 (0.0000)	0.011432 (0.0000)	0.010250 (0.0000)	0.007725 (0.0000)
$\gamma_1$	0.020659 (0.4893)	0.061431 (0.0714)	0.035439 (0.0639)	0.070817 (0.0000)
$\gamma_2$	-0.073978 (0.7061)	-0.419836 (0.0606)	-0.058691 (0.6450)	-0.404015 (0.0000)
Adjusted R <sup>2</sup>	-0.002623	0.003980	0.021585	0.049916

### Panel C: Book to Market Ratio

	Quartile			
	1 (Small)	2	3	4 (Big)
Based on daily data				
N	440	400	440	400
A	0.021591 (0.0000)	0.027315 (0.0000)	0.026500 (0.0000)	0.029616 (0.0000)
$\gamma_1$	-0.560081 (0.0004)	-0.833323 (0.0000)	-0.571865 (0.0001)	-0.431273 (0.0616)
$\gamma_2$	19.75007 (0.0000)	24.36256 (0.0000)	18.34888 (0.0000)	11.86025 (0.0348)
Adjusted R <sup>2</sup>	0.084177	0.100096	0.069399	0.006560
Based on weekly data				
N	440	400	440	400
A	0.008216 (0.0000)	0.010255 (0.0000)	0.009903 (0.0000)	0.013030 (0.0000)
$\gamma_1$	0.069782 (0.0154)	0.043569 (0.0666)	0.080555 (0.0001)	-0.017637 (0.5385)
$\gamma_2$	-0.417417 (0.0272)	-0.294092 (0.0593)	-0.480948 (0.0003)	0.303195 (0.1078)
Adjusted R <sup>2</sup>	0.008834	0.004136	0.030316	0.011977

Table 3 panel A shows the existence of herding behavior on price-earnings ratio with quartiles 2 and 3, indicating that investors reduce the risk level by following a market consensus that determines the company with good growth prospects and returns rates. Zhou and Lai (2009) express herding behavior on price-earnings ratio with big quartiles, so investors tend to see future growth prospects in the company. In contrast, in the small quartile, investors may see higher returns. Afza and Tahir (2012) stated that the price earning ratio reflects investor confidence and sentiment about the company's future performance and influences investment decisions. Herding behavior that occurs on the Indonesian stock market indicates that investors are looking at the company's growth and the company's return rate.



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Panel B shows herding behavior occurs in groups of companies that have a high market capitalization. In the Indonesian stock market, investors look at the company's size based on the company's market value. Gong and Dai (2017) stated that the existence of herding behavior in stocks with the largest quartile market capitalization indicates a high fundamental aspect and trading volume. Yao et al. (2014) suggest that the existence of herding behavior is due to higher volumes of trade. It will require greater market analysis coverage and faster response to good market news. Shyu and Sun (2010) state that companies with large market capitalization are easier for investors to get substantial and relevant information so that herding behavior is somewhat found in those stocks. While in panel C shows herding behavior occurs in growing companies. Stocks with low book to market have low transparency and information guarantee, so stocks in shares in this quartile often found the existence of herding behavior. Book to market can show the company's growth potential, reflecting the large or small percentage of the company's value.

While in the Malaysian stock market, there is no existence of herding behavior in the whole sector and based on price-earnings ratio, market capitalization, and book to market ratio. This indicates investors do fundamental analysis as information in making investment decisions. As Yao et al. (2014) show, investors on the stock market A in the stock market get more informed and more quickly adjust information than the stock market B. This shows that investors make more rational investment choices. Furthermore, to determine the effect of each independent variable on investment decisions are as follows:

**Table 4: Regression result for Relative Information Content**

Tobin's Q	Coefficient	Adj. R <sup>2</sup>	F	Obs	T-Test for Predictability <i>H</i> <sub>0</sub> : Mean difference = 0 <i>H</i> <sub>1</sub> : Mean difference ≠ 0
Equation: $TQ = \alpha + \beta_1 SR_{it} + \beta_2 PER_{it} + \beta_3 MC_{it} + \beta_4 BMR_{it} + \mu$					
Indonesia					
<i>SR</i>	0.454078	0.36881	246.2	1680	Hypothesis accepted
		9	7		
<i>PER</i>	5.26E-05				Hypothesis rejected
<i>MC</i>	0.000201				Hypothesis accepted
<i>BMR</i>	-0.315163				Hypothesis accepted
Constant	1.569759				
Malaysia					
<i>SR</i>	0.043834	0.88470	288.5	1800	Hypothesis accepted
		2	8		
<i>PER</i>	8.17E-05				Hypothesis accepted
<i>MC</i>	8.75E-05				Hypothesis accepted
<i>BMR</i>	-0.168989				Hypothesis accepted
Constant	1.433144				

Hypothesis 2: Stock return as an indicator of herding behavior has an effect on investment decisions in Indonesian and Malaysian stock exchange.

Table 4 shows the value of the stock return coefficient for Indonesia and Malaysia, which influence an investment decision. This indicates that the increase of stock return in Indonesia and Malaysia stock market will influence investors in investment decision making. The higher the rate of return will greatly affect the investment decision. This supports Filip et al. (2015), which states an efficient stock market if prices can reflect all the information available at any given time. Hence, investors have rational expectations about future price evolutions and can estimate the rate of stock returns to be earned. But the existence of financial behavior in the stock market that is influenced by market conditions can change investors' expectations of the information they have.



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Bakke and Whited (2010) state that stock prices can signal in investment decisions. Foucault and Frésard (2014) argue that share prices can provide precise information about the company's condition so that stakeholders can establish the right investment decisions. Tan et al. (2008) suggest that herding behavior has a strong impact on stock prices, and this behavior affects risk and stock returns. If market participants follow the market consensus, then the behavior will cause instability in the financial system. Still, it can push stock prices away from fundamental values that lead to high price volatility in the stock market.

Hypothesis 3: Price earning ratio as an indicator of herding behavior has an effect on investment decision in Indonesia and Malaysia market.

The value of the coefficient of price-earnings ratio for Indonesia of 5.26E-05 with the probability of t-statistic 0.3840 shows no effect of price earning ratio on investment decision. Petrovito (2016) states that the price earning ratio does not affect Tobin's Q's information on the projected income and future investment decisions. Nabavand and Rezaei (2015), in evaluating the essential financial performance used in decision making, found no relationship between price earning ratio and Tobin's Q. This indicates that for price earning ratio cannot be used as a benchmark of corporate performance in Indonesia's investment decisions. However, the price-earnings ratio can illustrate the company's growth prospects by valuing the company from the current stock market price compared to its per-share earnings.

In Malaysia, the coefficient of price earning ratio influences the value of Tobin's Q. It supports Afza and Tahir (2012) that the price earning ratio reflects investor confidence and sentiment about the company's future performance and influences investment decisions. This shows investors will invest in companies with high growth opportunities to provide maximum benefits. Zhou and Lai (2009) found investor sentiment affected by growth prospects regardless of size or risk level. Investors who rely on public information tend to increase their holdings when stocks are reported to have better opportunities or higher price-earning ratios. Muhammad and Scrimgeour (2016) state that the price-earnings ratio shows the amount paid by investors per unit of income announced in the income statement. Shareholders see several factors before making an investment decision that benefits a particular company.

Hypothesis 4: Market capitalization as an indicator of herding behavior has an effect on investment decisions in Indonesia and Malaysia exchanges.

Table 4 shows the value of the market capitalization coefficient on investment decisions (Tobin's Q) for Indonesia and Malaysia positive and significant. This indicates that the increase or decrease in market capitalization value will affect investment decision making in both exchanges. This supports Yermack (1996), who found that firm size measured using the market value of total capital logs could positively relate to the construction of Tobin's Q. Afza and Tahir (2012) suggest investors will be confident in increasing investment in small firms as they have an opportunity high growth. Meanwhile, Lin and Swanson (2005) said that foreign investors prefer large stocks that are marked by an increase in investment performance in these shares. This is due to the momentum of trading at a time when purchasing prices are driven to increase compared to when sales are pressed down, so there is a greater proportion of net difference from the purchase compared with the type of stock with small size.

Hypothesis 5: Book to market ratio as an indicator of herding behavior has an effect on investment decisions in Indonesia and Malaysia exchanges.

Table 4 shows the value of the coefficient, which is equally negative to Tobin's Q, so that the increase of book to market ratio can influence a decrease to an investment decision, whereas if a company with low book to market ratio can increase investment decision making. This supports Yao et al. (2014) suggest that companies with a lower book to market value have more negative coefficients in most



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portfolios, which strongly indicates that investors in the Chinese stock exchange show higher rates of herding. While the value of shares that have the highest book to market ratio shows the absence of herding behavior. This indicates the investment strategy based on the book to market ratio, investors prefer companies with low book to market ratio value compared to high book to market ratio. Fama and French (1992) argue that companies with a low book to market ratio have a strong performance, while companies with a high book to market ratios may perform poorly.

### 5. CONCLUSION

An efficient stock market is able to provide information needed by investors, so they have confidence in their capabilities and information. However, the existence of herding behavior shows that the stock market is unable to provide accurate information about market conditions because this behavior brings significant changes in stock prices, affects risk, and stock returns. This herding behavior indicated by the non-linear and negative relationship between return dispersion and market return in the consumer staples, health care, industrial and material sectors of the Indonesia Stock Exchange, while there is no existence of herding behavior the Malaysian Stock Exchange. Investment behavior can be seen from the influence between an increase and a decrease in stock return, market capitalization, and book to market ratio too high and low investment decisions. While Price-earning ratios are not always used to determining investment decisions, especially in Indonesia stock exchange. While on the Malaysia stock exchange, the price-earnings ratio has a role as one factor determining investment decisions. To determine investment decisions, market players should pay attention to the market price's information in determining the initial level of return that the company will give. To ensure the initial information, market players need to conduct an in-depth analysis of the company's growth prospects and the company's financial conditions, just like the Malaysia Stock Exchange can use the price earning ratio factor, market capitalization, and book to market ratio. However, on the Indonesian Stock Exchange is necessary to use other financial factors to ensure investment decisions. When there is an existence of herding behavior that is marked by a market participant who follows market consensus, it is better to conduct a fundamental analysis of the financial condition of each company without waiving information from the market consensus. In these conditions, investors also need to make an investment strategy by diversifying shares. This is to minimize the level of risk of losses on the investment.

### LIMITATION AND STUDY FORWARD

To ensure the existence of herding behavior, it is necessary to use trading volume so that the research can see from the aspect of price and trading volume. The use of trading volume is not influenced by other conditions such as market prices that can be affected by exchange rates when research is conducted with a sample of several countries. We need to use other financial factors that can influence investment decisions to explain further about the effect on investment decisions. This study uses only the top 5 companies based on total assets consisting of 9 sectors. For further research, it is necessary to use more samples of the company for each sector so that the results of the research can assure the influence between independent and dependent variables.

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## FINANCIAL LITERACY, FINANCIAL BEHAVIOR AND REVENUE ON INVESTMENT DECISIONS HOUSEWIFE IN PALEMBANG

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### Abstract

**Purpose:** To analyze financial literacy, financial behavior, revenue to investment decisions.

**Research Methodology:** The sampling method used is non-probability with research subjects being individuals. The number of respondents gathered was 30 housewife in the Multiwahana Complex RT 68 RW 28 Kec. Sako Palembang. Data collection techniques offline, while offline data is directly taken from respondents. The instrument used in the form of a questionnaire. The period of collecting data for three months was August-Oct 2019. Data were analyzed inferentially with Structural Equation Modeling (SEM).

**Results:** This study found that there was a significant positive effect from financial literacy on investment decisions, a non significant but positive effect financial behavior on investment decisions, a significant positive effect from and a non significant negative effect from revenue on investment decisions.

**Limitations:** The value of R square is good but there is still a gap to add other variables for next research can add risk factors because every investment decision will depend on the risk profile of each person who is different.

**Contribution:** This research for the role of personal finance in financial management.

**Keywords:** *Financial Literacy, Financial Behavior, Revenue, Investment Decisions.*

### 1. INTRODUCTION

Some people have dreams and goals to be able to live financially independently or to be known as financial freedom, not only because they have lots of funds, someone is said to have financial freedom when they become a person who enjoys life. (Kiyosaki, 2013). Reaching the phase of financial freedom must understand the priority in allocating funds for investment, the investment needed to meet financial needs in the future in the long term (Djumena, 2011). According to Financindo (2014) investment is investing in the hope of providing benefits and offering passive income, investing that can buy assets / goods, creating businesses and buying securities. Generally, people who invest want money that has been reinvested and get passive income, which means preparing for future needs to realize their dream of having financial freedom by utilizing current funds (Pritazahara et al., 2015). It is important to invest just in case financial conditions decline and unexpected expenses occur (Allen, 2015).

According to the OJK (2017) by investing, you will get benefits, namely: living well, being able to meet your needs and desires, finances are organized and can motivate you to be wise in shopping. Therefore it is important for individuals to invest, especially when they are married (Ariyanti, 2020). Almost everyone has a dream when they are married to be prosperous financially, that is, they are free to grow and develop according to their individual abilities and have sufficient wants and needs so that women need to play a role in managing family finances (Kania, 2010). According to the OJK (2019) as the family finance minister, the duties of housewives in managing finances include: conducting monthly evaluations, saving wisely, making budget items, financial communication, being vigilant in online loan transactions and illegal investments so that they are smart in making investment decisions.



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According to Jaya (2018) that the number of people who make investment decisions is only 0.4% of the total population of Indonesia or around 1 million of Indonesia's total population of 250 million, so that Indonesia still has a large space to increase interest in making investment decisions, especially among housewife. According to Pajar (2017) that some people who make investments also experience failures in trying. The main reason is because there are no detailed goals and measurable motivation when they rise so it is difficult to make investment decisions (Mike, 2014).

According to Pajar (2017) that some people who have made investments have also experienced failure in investing. The main cause is because they do not have specific and measurable financial goals in investing, as a result it is difficult to know the success of investing and lack of motivation in making investment decisions (Mike, 2014). Financial literacy has a significant effect on investment decisions (Khairiyati 2019; Yusuf, 2018; Dewi et al., 2018; Valentya, 2018; Aini et al., 2017; Yushita, 2017; Tarora et al., 2017; Mubarak, 2017; Kusumadyahdewi, 2016; Sirine, 2016; Welly, 2016; Hisashi & Ratna, 2016; Ariani et al., 2015; Navickas et al., 2014; Yulianti et al., 2013; Yulianti & Silvy, 2013; Klapper & Panos, 2011; Robb & Woodyard, 2011; Widayat, 2010). According to Welly et al. (2015) stated that financial literacy simultaneously has a significant effect but partially does not. This is not the same as the results of Vuthalova's (2015) study that financial literacy has no significant effect on investment decisions.

The higher the financial literacy, the wiser financial behavior is in making investment decisions so that financial behavior is positively related to investment decisions (Hardina, 2019; Yuliani, 2019; Aristya, 2019; Dewi et al., 2018; Visockaitė et al., 2016; Perry & Morris 2015; Aminatuzzahra, 2014; Mutswenje et al., 2014; Yoong et al., 2012; Jahanzeb et al., 2012; Widayat, 2010; Hogarth et al., 2003) but different from the research results of Ida et al. (2010) stated that financial behavior has no significant effect on investment decisions. Income has a significant effect on investment decisions (Anis, 2018; Dewi et al., 2018; Rimadhani, 2018; Khairani, 2016; Musdhalifa, 2016; Sudheer, 2015; Cull et al., 2011; John et al., 2009; Aizcorbe et al. al 2003). Different things state that the greater a person's income, the greater the level of consumption and lack of understanding for future investment so that income does not affect investment decisions (Rasuma et al., 2017; Atkinson & Messy, 2012; Rita et al., 2010; Monticone et al., 2010; Monticone. , 2010).

Lack of interest in one's investment decisions is caused by the influence of low levels of financial literacy or public knowledge of content in the capital market (Merawati, 2015; Sulistio, 2015). According to Sofi et al. (2015) the influence of other people to make investment decisions by financial behavior both by rational and irrational attitudes. According to Cull et al. (2011) the higher a person's income, the wiser he makes investment decisions. Based on the phenomena described, the researcher aims to analyze financial literacy, financial behavior and income towards investment decisions. It is hoped that the analysis will provide benefits in financial management, especially theories related to personal finance, namely personal financial management, financial literacy, financial behavior, income and investment decisions

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Financial management can be defined as the art and science of managing money, namely the process of planning, analyzing and controlling financial activities, regular financial management will achieve orderly financial records for both individuals and organizations (Gitman & Zutter, 2015; Rasyid, 2012). Several forms of financial management applications, namely: 1) Corporate Finance Management, company financial management is used for the needs of financial reports and financial accountability in profit-oriented companies or organizations, every company or organization always appears and is faced with problems including: allocation of funds generated by the company, financial instruments that can benefit the company, how much funds that must be collected by the company, there are consumers with bad credit and other problems so that the company requires corporate financial management (Ross et.al., 2012). 2) Personal Financial Management (Personal Finance), Personal financial management according to Rasyid (2012) knowledge of personal finance in general, while Wadiyo (2019) processes the financial planning and control of each person or family who is



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faced with financial management problems regarding the allocation of income that has been obtained either from salaries / wages for a worker or The benefits obtained from an entrepreneur are to be used for spending on needs, both primary, secondary and tertiary, the problem of funds being used for daily life and how much funds are stored in savings so that personal financial management is needed.

Therefore, it is important for every individual to allocate the income earned by investing and must increase the level of financial literacy and financial behavior wisely because of the increasing number of financial products in society, both domestic and foreign. This is the same as the slogan of the Financial Attorney Authority (2014) to respond to money wisely, manage smartly, and have a prosperous future. According to Gitman & Zutter (2015) types of personal financial management include, 1) Money Management, good fund management is related to allocating funds in various forms of investment, an effort to raise funds, for the purpose of financing investment or spending efficiently. 2) Spending and Credit, consider wisely when it is best to owe and when not to owe it, buy goods on credit for goods and services needed. 3) Saving and Personal Investment, saving and investing is the most effective way to increase the value of wealth, saving will guarantee the availability of money for the short term while investing will guarantee the availability of money in the long term.

Financial literacy is an individual who has a set of skills and abilities to utilize current assets / resources to achieve expected goals (Brigham & Houston, 2010). Financial literacy according to Remund (2010) 4 main things in financial literacy: budgeting, savings, loans, and investment. Financial behavior is how a person's behavior in financial organizations is based on psychology (Manurung, 2012). According to Gitman & Zutter (2015), financial behavior is the way a person, a source of funds, and the right way to make decisions about using funds. Revenue is a stage that comes from a person's work, in the form of salaries and wages, his own business, the head of the household or family members (Sukirno, 2003). Central Bureau of Statistics, 2020 Household income is the stage that comes from the head or members of the household. Investment is utilizing current assets with the hope of providing benefits and maintaining the value of funds in the future in the form of passive income (Gitman & Joehnk, 2015). Investment is an activity or activity using cash in the present with the aim of obtaining future goods (Horne, 2013). Investment decisions play an important role in supporting decision making including how to get funds to invest, the composition of assets that must be retained or reduced and how to invest in one or more assets in order to gain a profit (Horne & Wachowicz, 2013).

Income is the amount of income obtained from the work of a person, which describes the economic position of the family in society, including salaries and wages, income from their own business, income from other businesses of the head of the household or family members (Sukirno, 2003). Household income is income obtained from the household, either the income of the head of the household or the income of household members (Central Statistics Agency, 2020). Income is the gross inflow or inflow of assets (assets) from economic benefits arising from normal activities during a period (Kieso et.al., 2017). According to Andrew et al. (2014) personal income is the total gross income of an individual that comes from the wages of a business company obtained from various investments.

Housewives have many roles in the family, especially how their skills are in managing finances to maintain family economic stability (Jamilah, 2014). According to Widiastuti (2009) a housewife is a woman who already has a husband and family who has the responsibility of being a wife and mother to manage affairs at home while according to Mumtahinnah (2008), a housewife is a woman who already has a husband and does not have a job and must carry out their duties to take care of daily family life. According to Junaidi (2017) housewives are divided into two categories, namely, housewives work, working housewives are women who do not only have activities to take care of the household but work in an agency, both public and private with the aim of earning more. Housewives Not Working, a non-working housewife is a woman who has the task of taking care of household matters on a regular and continuous time scale.



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According to the Central Statistics Agency (2019) housewives have the task of taking care of the household without getting wages. Not separated from this task, as reported by the Financial Prosecutor Authority (2019) as family finance minister, the duties of housewives in managing finances are: conducting monthly evaluations, saving wisely, making budget posts, financial communication, being vigilant in online loan transactions and illegal investments so that smart in making investment decisions. A person's condition can be measured using the concept of income which shows the total amount of money received by a person or household during a certain period of time (Samuelson, 2002). Someone who has income will show responsible behavior in managing finances so that individuals will seek relevant information for maximum results (Perry et al. 2015).

Financial literacy is a person's ability and knowledge in managing finances in order to improve individual welfare in order to make appropriate investment decisions (Margaretha et al., 2015). According to Widiyati (2012) a person must have knowledge of attitudes and implementation of financial literacy in order to make the right investment decisions. Previous research have relationship between financial literacy variables and investment decisions according to (Khairiyati 2019; Yusuf, 2018; Dewi et al., 2018; Valentya, 2018; Aini et al., 2017; Yushita, 2017; Tarora et al., 2017 ; Mubarak, 2017; Kusumadyahdewi, 2016; Sirine, 2016; Welly, 2016; Hisashi & Ratna, 2016; Ariani et al., 2015; Navickas et al., 2014; Yulianti et al., 2013; Yulianti & Silvy, 2013; Klapper & Panos, 2011; Robb & Woodyard, 2011; Widayat, 2010; Tamimi & Kalli, 2005) that the higher the financial literacy, the more correct investment decisions. The first hypothesis is:

H<sub>1</sub>: The higher the financial literacy, the more correct the investment decision.

According to Wicaksono et al. (2015) financial behavior is an approach to explain how a person makes investment decisions and is related to finance. There are relationship between financial behavior and investment decisions according to (Hardina, 2019; Yuliani, 2019; Aristya, 2019; Dewi et al., 2018; Visockaitè et al., 2016; Perry & Morris 2015; Aminatuzzahra, 2014; Mutswenje et al., 2014; Yoong et al., 2012; Jahanzeb et al., 2012; Widayat, 2010; Hogarth et al., 2003) the more financial literacy increases, the wiser financial behavior is in managing finances and the more correct investment decisions.

H<sub>2</sub>: The higher the financial behavior, the more correct the investment decision

According to Andrew et al. (2014) personal income is the total income of a person who comes from company wages used for spending needs, wants or investing, household income is income obtained from the household either from the income of the head of the household or the income of household members (Central Statistics Agency, 2020) ). The relationship between income variables and investment decisions according to (Anis, 2018; Dewi et al., 2018; Rimadhani, 2018; Khairani, 2016; Musdhalifa, 2016; Sudheer, 2015; Cull et al., 2011; John et al., 2009; Aizcorbe et al 2003) so that the higher a person's income, the more correct the investment decision.

H<sub>3</sub>: The higher the income, the more correct the investment decision.

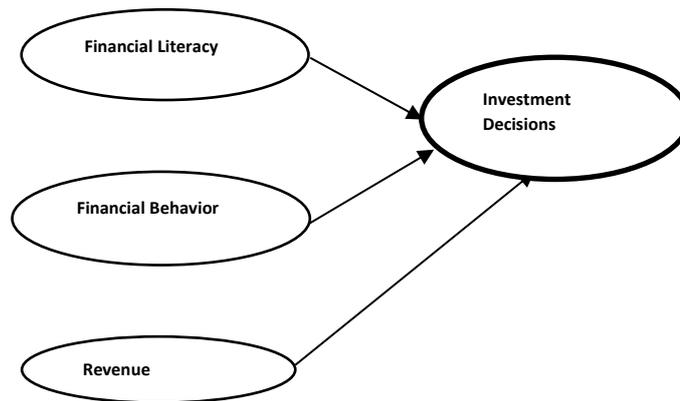


Figure 1: Research Hypothesis

### 3. RESEARCH METHODOLOGY

The scope of this research is the influence of financial literacy, financial behavior and income on investment decisions. Arikunto (2006) data sources are the intended subjects to obtain research data, primary data in research uses questionnaires while secondary data is obtained from trusted books and journals. The population and sample of this study were all housewives in the Multiwahana Complex RT 68 RW 28 Kec. Sako Palembang painting 30 houses.

Definition of Operational Variables Financial literacy is an individual who has a set of skills and abilities to utilize current assets / resources to achieve expected goals (Brigham & Houston, 2010). Financial literacy according to Remund (2010) 4 main things in financial literacy, namely budget, savings, loans, and investment. Financial behavior is how a person's behavior in financial organizations is based on psychology (Manurung, 2012). According to Gitman & Zutter (2015) financial behavior is the way a person, a source of funds, and the right way to make decisions about using funds. Revenue is a stage that comes from a person's work, in the form of salaries and wages, his own business, the head of the household or family members (Sukirno, 2003). Central Bureau of Statistics, 2020 Household income is the stage that comes from the head or members of the household. Investment decisions play an important role in decision making including how to get funds to develop, the composition of assets that must be utilized or reduced and how to invest in one or more assets in order to get a profit (Horne & Wachowicz, 2013).

The measurement scale in this study uses an interval scale (rating scale), which is to process data in the form of numbers and then interpret it in a qualitative sense. Based on the responses of the respondents' answers, they are given a rating with the description of the interval scale category:

1. STS (Strongly Disagree) = 1
2. TS (Disagree) = 2
3. C (Enough) = 3
4. S (Agree) = 4
5. SS (Strongly Agree) = 5

Inferential statistical data analysis techniques. Inferential statistics in order to explain the closeness of the relationship between variables. Inferential statistical analysis in this study measured using SmartPLS (Partial Least Square) software includes: measurement models (external measurement models or models) and structural models (inner models).



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## 4. RESULTS AND DISCUSSIONS

The measurement model is used as a validity test (convergent validity and discriminant validity) and a reliability test (composite reliability and cronbach's alpha), among others. The loading factor value  $> 0.7$  and  $AVE > 0.5$  means valid if it is less than that value then it is deleted.

**Table 1: Loading Factor**

Code	Loading	Evaluation
<b>Financial Literacy</b>		
FL1	0,774	Valid
FL 2	0,727	Valid
FL 3	0,794	Valid
FL 4	0,836	Valid
<b>Financial Behavior</b>		
FB1	0,744	Valid
FB 2	-0,182	Not Valid
FB 3	0,823	Valid
FB 4	0,680	Not Valid
FB 5	0,779	Valid
<b>Revenue</b>		
R1	0,820	Valid
R2	0,471	Not Valid
R3	0,923	Valid
R4	0,959	Valid
R5	0,759	Valid
<b>Investment Decisions</b>		
ID1	0,848	Valid
ID 2	0,921	Valid
ID 3	0,978	Valid
ID 4	0,923	Valid

Source: from primary data, 2020

Based on the results of the evaluation table loading factor indicators FB2, PB4 and R2  $< 0.7$  so that it must be removed, while the AVE value  $> 0.5$  so that all variables are declared valid and suitable for research use.

**Table 2: Average Variance Extracted**

Variable	AVE	Evaluation
X1 (Financial Literacy)	0,845	Valid
X2 (Financial Behavior)	0,780	Valid
X3 (Revenue)	0,635	Valid
Y (Investment Decisions)	0,614	Valid

Source: from primary data, 2020

The indicator meets discriminant validity requirements if the Fornell Larcker criterion or HTMT value and cross loading are greater than other variables.

**Table 3: HTMT**

	X1 (FL)	X2 (FB)	X3 (R)	Y (ID)
X1 (FL)	0,814			
X2 (FB)	0,799	0,797		
X3 (R)	-0,246	-0,277	0,883	
Y (ID)	0,802	0,757	-0,320	0,919

Source: from primary data, 2020



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Based on tables 3 and 4 that HTMT and cross loading indicate that the correlation between indicators and other variables has met the requirements for discriminant validity, namely the value of the indicator > other variables.

**Table 4: Cross Loading**

	X1	X2	X3	Y
FL 1	0,787	0,409	-0,273	0,555
FL 3	0,770	0,641	-0,064	0,680
FL 4	0,880	0,468	-0,275	0,704
	X1	X2	X3	Y
FB 3	0,575	0,858	-0,119	0,552
FB K5	0,531	0,896	-0,302	0,639
	X1	X2	X3	Y
R 1	-0,010	-0,019	0,820	-0,099
R 3	-0,310	-0,256	0,942	-0,334
R 4	-0,245	-0,326	0,972	-0,370
R 5	0,121	-0,062	0,783	-0,132
	X1	X2	X3	Y
ID 1	0,658	0,561	-0,396	0,848
ID 2	0,816	0,638	-0,261	0,921
ID 3	0,797	0,619	-0,353	0,978
ID 4	0,658	0,689	-0,169	0,924

Source: from primary data, 2020

Based on the results of the evaluation of table 5 of composite reliability and Cronbach's Alpha. The composite reliability value of all research variables > 0.7. Based on the results, it is stated that each variable fulfills the composite reliability. The Cronbach's alpha value on each research variable > 0.6 which means that it is valid or has high reliability behavior and meets the requirements of the Cronbach's alpha value.

**Table 5: Composite Reliability**

Variables	Composite Reliability	Cronbach's Alpha	Evaluation
X1 (Financial Literacy)	0,854	0,744	Valid
X2 (Financial Behavior)	0,869	0,701	Valid
X3 (Revenue)	0,934	0,917	Valid
Y (Investment Decisions)	0,956	0,938	Valid

Source: from primary data, 2020

**Table 6: Hypothesis Test**

Path coefficients	$\beta$	P value	Decision	
FL → ID	4,450	0,000	Accepted H1	R <sup>2</sup> = 0,705
FB → ID	1,668	0,096	Rejected H2	
R → ID	1,049	0,295	Rejected H3	

Source: from primary data, 2020

### The Effect of Financial Literacy on Investment Decisions

Financial literacy that is proxied by investment decisions has a positive and significant effect on investment decisions. It is proven that the result of the Path Coefficients is 0.601 and the result of the t-statistic is 4.450. So, it is concluded that financial literacy has a positive and significant effect on investment decisions. According to financial literacy theory (Brigham & Houston, 2010; Remund; 2010) is a person's ability to use current assets to achieve the expected goals, there are 4 main things in financial literacy: investment decisions, savings, loans and budgeting. Based on the results of



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research from previous researchers, namely the higher financial literacy, the more appropriate investment decisions (Khairiyati 2019; Yusuf, 2018; Dewi et al., 2018; Valentya, 2018; Aini et al., 2017; Yushita, 2017; Tarora et al. , 2017; Mubarak, 2017; Kusumadyahdewi, 2016; Sirine, 2016; Welly, 2016; Hisashi & Ratna, 2016; Ariani et al., 2015; Navickas et al., 2014; Yulianti et al., 2013; Yulianti & Silvy, 2013; Klapper & Panos, 2011; Robb & Woodyard, 2011; Widayat, 2010; Tamimi & Kalli, 2005). Based on the explanation above, on average the respondents already have good financial literacy provisions in making investment decisions appropriately. It is concluded that financial literacy has a positive and significant effect on investment decisions.

### **The Effect of Financial Behavior on Investment Decisions**

Financial behavior proxied by investment decisions has a positive but insignificant effect on investment decisions. This is evidenced by the results of the Path Coefficients, namely 0.278 and the t-statistical test results, namely 1.668. According to (Gitman & Zutter, 2015) financial behavior plays a role in how a person makes investment decisions. Based on the behavioral finance theory, it indicates that on average the respondents in this study do not have good financial behavior in making investment decisions. The same is the case with the research results (Zahera & Bansal, 2018; Visockaitė et al., 2016; Mutswenje et al., 2014; Jahanzeb et al., 2012; Widayat, 2010; Ida & Dwinta et al. 2010) that financial behavior has a positive effect but not significant to the investment decision. Therefore, it can be concluded that financial behavior has a positive but insignificant effect on investment decisions.

### **The Effect of Revenue on Investment Decisions**

Revenue that is proxied by investment decisions has a negative and insignificant effect on investment decisions. This is evidenced by the results of the Path Coefficients, namely -0.104 and the result of the t-statistic test, which is 1.049. These results are in accordance with the results of research (Hamidi et al., 2019; Dwiwana et al., 2017; Henny, 2016; Dea, 2017; Al Shorafa et al., 2016; Rita et al., 2010) that income has a negative effect and not significant to the investment decision. This is in line with the opinion of Hamidi et al., (2019) that when making investment decisions, it is not related to income but is more related to one's ability to see investment opportunities. Because with a small income and being able to see investment opportunities, you will get maximum profit. The concluded that revenue has a negative and insignificant effect on investment decisions.

## **5. CONCLUSION**

The conclusion in this study is that financial literacy proxied by investment decisions has a positive and significant impact on investment decisions, financial behavior proxied by investment decisions has a positive but insignificant effect on investment decisions and income proxied by investment decisions has a negative and insignificant effect on investment decisions. Investment decision. The results of this study are expected to provide knowledge on theories in financial management, especially theories on personal finance, namely personal financial management, financial literacy, financial behavior, income and investment decisions. For the government and the Financial Attorney Authority, it is hoped that it can become material for evaluation and reference to further socialize the importance of investment from an early age to the public, while for the community, it is hoped that it can be used as a reference for information to find out personal investment and can be used as evaluation material and reference when making investment decisions, especially those have a family.

### **LIMITATION AND STUDY FORWARD**

This study resulted in one hypothesis that was accepted from the three proposed hypotheses so that future studies could re-test this study with the same unit of analysis, namely individuals but need to involve the male gender. The value of R square is good but there is still a gap to add other variables,



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for example by adding risk factors because every investment decision will depend on the risk profile of each person who is different.

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## EFFECT OF SHARIA ACCOUNTING KNOWLEDGE, RELIGIOSITY, SOCIAL ENVIRONMENT, AND LOCATION ON DECISION OF SAVING IN SHARIA COMMERCIAL BANKS

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### Abstract

**Purpose:** This study aims to analyze the influence of sharia accounting knowledge, religiosity, social environment, and location on the decision of accounting students of Sriwijaya University saving in Sharia Commercial Banks.

**Research Methodology:** The theory used are the theory of planned behavior and motivation theory. This research is quantitative descriptive. The data used are primary data obtained by survey methods using questionnaires. Data was processed by using binary logistic regression test.

**Results:** The results showed that sharia accounting knowledge, religiosity, social environment, and location simultaneously affect the decision of students Saving in Sharia Commercial Banks. Partially the sharia accounting knowledge and location have a positive and insignificant effect on students' decision saving in Sharia Commercial Banks. Whereas religiosity shows a non-significant negative influence on students' decision saving in Sharia Commercial Banks. Only the social environment has a significant positive influence on students' decision saving in Sharia Commercial Banks. Only the social environment has a significant positive influence on students' decision saving in Sharia Commercial Banks.

**Keywords:** *Sharia Accounting Knowledge, Religiosity, Social Environment, Location, Decision, Saving, Sharia Commercial Banks*

### 1. INTRODUCTION

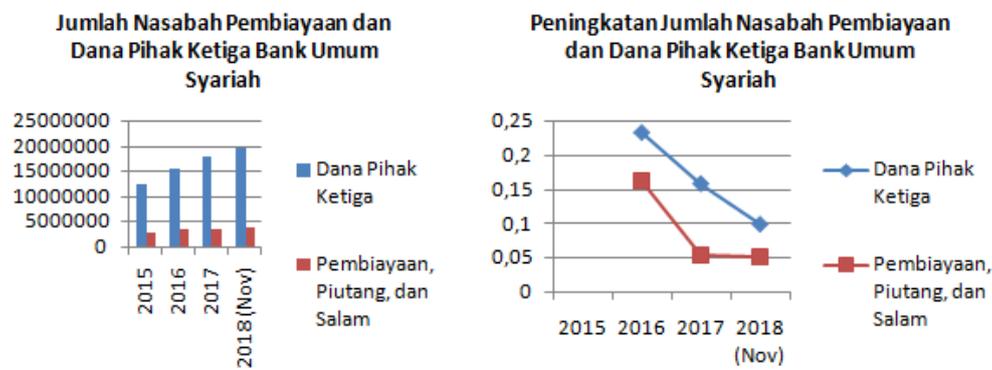
Nineteen and ninety-seven are sacred years where the embryo of the monetary crisis began to appear this year. The monetary crisis continued since July 1997 until the peak of the rupiah value plunged to Rp.16,800,- per USD on June 1998. Then in 2008 there was an economic crisis on a larger scale. As quoted by BI (2009), this time the financial crisis originated in the United States, which hit other countries, and then expanded into a global economic crisis that was felt since the second semester of 2008. Both the monetary crisis and the global economic crisis, sharia banking with its distinctive positioning "more than just a bank" (beyond banking) has immunity and is able to withstand the crises that occur. The big difference between the system of conventional and sharia banking as the main reason behind the immunity of sharia banking which is not owned by the conventional banks.

Conventional banking systems use the cost concept in setting margins where there is interest promised to customers who save, then to cover these costs conventional banks will lend customers' saving with higher interest rates. The difference between the two is known as the spread. These spreads can be positive or negative. If negative, conventional banks are obliged to cover these shortcomings with retained earnings or even capital (Triana and Mahdi, 2017). In contrast to sharia banking which adheres to the profit sharing approach. Any funds received from customers will be distributed in the form of financing. Then the benefits obtained from the financing are divided into two, for the bank and for the customer in accordance with the agreement agreed at the beginning. The development of Sharia banks has also been accompanied by the release of a law regulating sharia banking in Indonesia, namely UU No.21 tahun 2008 concerning Perbankan Syariah and UU No.19 tahun 2008 concerning Surat Berharga Syariah Negara (SBSN). The constitution succeeded in providing strength

for sharia banking in attracting foreign investors and strengthening the base capital of sharia banking itself (BI, 2009).

Indonesia is a country with a majority of the population being Muslim. Saving in Sharia banks is actually a necessity for a Muslim. A Muslim saves in an Sharia bank in order to avoid interest. Lubis (2010) in Pertiwi and Ritonga (2012) Interest are known to have the same substance as usury. A Muslim is forbidden in both the Qur'an and hadith to deal with any small amount of usury (Nurjihad, 2013).

The role of Sharia banks in South Sumatra itself is quite significant. This is reflected in the value of FDR (Financing to Deposit Ratio) in South Sumatra reaching 106.45%. An extraordinary thing is that the financing distributed by sharia banking is Rp. 6.4 trillion exceeds the amount of TPF (Third Party Funds) which amounts to Rp. 6 Trillion (OJK, 2018). This data shows that sharia banking in South Sumatra is able to move the economy very well, especially in carrying out the intermediary function (Abhimantra et al., 2013).



Source : (OJK, 2018)

**Figure 1: Chart of the Number of Financing Customers and Third Party Funds of Sharia Commercial Banks and Increase in the Number of Financing Customers and Third Party Funds of Sharia Commercial Banks**

The chart above explains that the number of customers of Sharia Commercial Banks continues to increase from year to year, both deposits and financing customers (left chart), but the increase has decreased from year to year (right chart). Pertiwi and Ritonga (2012) once argued that the development of sharia products could be considered slow even sometimes these developments were not as significant as conventional banks.

Abdallah and Lubis (2014) observed that the factor of belief or religiosity very dominant influence on the interest of saving. The research was conducted on students of Madrasah Aliyah Negeri (MAN) in Medan City. Another factor that is a major constraint in attracting savings MAN students in Medan is the location. The availability of an easily accessible branch office is expected to help increase interest of saving in Islamic Commercial Banks. Another study conducted by Abhimantra et al (2013) concerning Analysis of Factors Affecting Customers (Students) in Choosing Savings in Sharia Banks. The results of the study illustrate that knowledge, religiosity, products, reputation and service in Sharia Banks have a positive influence on the decision of choosing to save in Sharia Banks, although not significant. Knowledge is the least influential factor compared to other factors. Yuliawan (2011) argues that knowledge can be improved both through promotion and socialization, especially about the difference between interest rates and profit sharing. Knowledge has the potential to be developed in increasing the number of customers saving in Sharia Banks. Therefore, Sharia Accounting courses are the right media to increase students' knowledge as prospective customers regarding the importance of saving in Sharia Banks. Considering that in the syllabus of Sharia Accounting courses, the things learned in this course are fundamental.

The decision of someone to save in a Sharia Commercial Bank can arise from within themselves or from the social environment. Ajzen (1991) in his theory namely Theory of Planned Behavior (TPB) said that one's intention to behave was influenced by three factors of attitude, subjective normative, and perceived behavioral control.

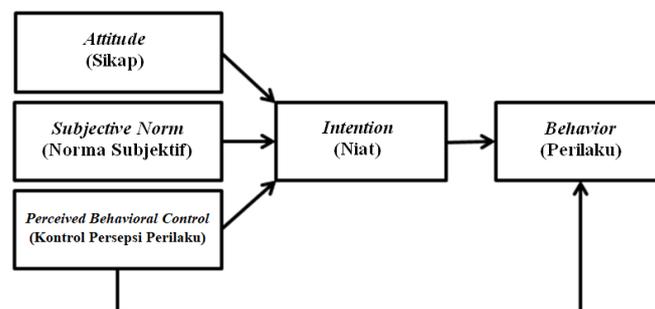
Attitude is determined by individual beliefs or knowledge regarding the consequences when a person behaves. This attitude factor is closely related to Sharia Accounting Knowledge and Religiosity variables. While subjective norms factor is related to Social Environment variables where subjective norms contain about other people's perceptions or social pressures that support whether individuals do things. The last is the factor of perceived behavioral control that contains perceptions of ease or difficulty in doing something (behaving). This factor is closely related to the Location variable (Ajzen, 2006) in (Hatmawan and Widiastara, 2016). Difficulty to reach locations often prevent individuals from saving at Islamic Commercial Banks (Abdallah dan Lubis, 2014).

There are many other studies related to the decision to save in a Sharia Commercial Bank. However, the study is irrelevant if it has to generalize the results of the research to students because students are considered more intellectual and critical of the current issues inherent in everyday life.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Theory of Planned Behavior or TPB

Theory of Planned Behavior (TPB) is the development of the Theory of Reasoned Action (TRA). TPB is designed to predict and explain human behavior in certain contexts. Hatmawan and Widiastara (2016) said that TRA was developed in 1967, then the theory continued to be revised and expanded by Icek Ajzen and Martin Fishbein. Before the existence of TPB, TRA explained that a person's intention towards behavior was only formed by two main factors, namely attitude toward the behavior and subjective norms. Then, in TPB one more factor was added, namely perceived behavioral control (Ajzen, 1991).



Source: (Ajzen, 1991)

**Figure 2: Theory of Planned Behavior (TPB) Model**

Attitude referred to in the TPB model above is a factor in someone which is learned to give a positive or negative response to an assessment of something given. Attitudes are determined by individual knowledge or beliefs regarding the consequences of a person when behaving. Whereas subjective norm is also known as social factors. Individuals will show a certain behavior based on the perception of others who think that it is important or in other words can also be interpreted as a perceived social pressure to perform or not perform an action (Ajzen, 2006) in (Hatmawan and Widiastara, 2016).

Perceived behavioral control is the perceived ease or difficulty in performing a behavior. The line that connects directly between behavioral and behavioral perception controls indicates that there is a direct relationship between the two. Thus, perceived behavioral control can influence behavior indirectly through intention or can also predict behavior directly.



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### **Motivation Theory**

In general, according to Kamus Besar Bahasa Indonesia (KBBI) motivation is an impulse that arises in a person consciously or unconsciously to carry out an action with a specific purpose. According to Sadirman in Abidin and Ervanto (2015), motivation has a major influence on one's interests and is a driving force for doing things. Maslow's Motivation Theory in Reksohadiprodjo and Handoko (2000) which is also called the Hierarchy of Needs Theory suggests 5 needs of human life based on their hierarchies, ranging from the most basic needs to the higher needs.

Five human needs are physiological needs including food, drink, water, air, clothing, shelter, safety needs including a sense of security from violence both physically and psychologically, social needs including affiliate functions, esteem needs include expectations to be recognized by others, have a reputation, and be confident and appreciated by everyone, and self-actualization needs include the individual's need to fulfill his personal ambitions such as achieving goals, going forward, and get better.

Saving in a Sharia Commercial Bank is a need for self-actualization where a Muslim tries to fulfill his identity as a Muslim. Usury or interest is prohibited in Islam (Nurjihad, 2013). A way to avoid usury is to save in a Sharia Commercial Bank. In addition, saving at a Sharia Commercial Bank can also be classified as a security requirement (safety needs) because a Muslim is afraid of the sins arising from interest/usury.

### **Sharia Accounting Knowledge**

Knowledge in Kamus Besar Bahasa Indonesia (KBBI) means everything that is known or commonly related to a subject which in this case the knowledge of sharia accounting pertains to one of the courses in the Accounting Department, Sriwijaya University. Whereas what is meant by sharia accounting according to Nurhayati and Wasilah (2017), is an accounting process for transactions that are in accordance with the rules set by Allah SWT. So, it can be concluded that sharia accounting knowledge is everything that is known to be related to the accounting process in accordance with the rules set by Allah SWT, including things that are fundamental in sharia accounting.

### **Religiosity**

Religiosity is a comprehensive unity that makes a person referred to as a religious person (being religious), not just claiming to be a person who has a religion (having religious). Religiosity itself includes religious knowledge, religious experience, religious behavior (morality), and socio-religious attitudes. Islam itself teaches that religiosity can be seen from the practice of aqeedah, sharia, and morals or commonly expressed in terms of faith, Islam, and ihsan. If the three elements are fulfilled, then one can be said to be in full religion.

### **Social Environment**

Environment is everything that exists in nature and its surroundings and has certain meanings and influences for individuals. Environment as the basis of teaching is a conditional factor that affects individual behavior (Hamalik, 2001). While the definition of the social environment according to Purwanto (2003) is that all other people or humans which influence individuals. The influence of the social environment can be received directly and some are indirect. The social environment has a big influence especially on spiritual growth and personality.

### **Location**

Wahjono (2010) argues that bank location is a network where bank products and services are provided and can be utilized by customers. The location of the bank is the place where the products of the bank branch are traded and the banking control center. There are several types of bank office locations in practice, such the location of head office, main branch, sub-branch office, cash office, and location of ATM machines. So, it can be concluded that the location of the bank is a place where Sharia Banks can operate banking products and to control banking activities in accordance with the principles of Islamic law (Kasmir, 2010).



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Location determination is essentially to get closer to customers, both funding-sources and credit customers, but in addition there are several objectives in determining the location of the bank (Wahjono, 2010), that are:

- a. Facilitate customer service by approaching and facilitating accessibility. Included in terms of accessibility are not only the distance, but also the ease of reaching it by public transport, located on a road that is easily accessible from any direction, located in the middle of the city, and often passed by city transportation throughout the working hours of the bank office. Including convenience in terms of parking the vehicle.
- b. Ease of installation and connection with technology networks.
- c. Location allows banks to organize offices and in / out-door layout freely so as to support the availability of parking spaces for services, waiting rooms and other service facilities so as to create customers get comfort and satisfaction in utilizing bank products and services.
- d. The layout in the office allows a queuing system that is effective but at the same time efficient. Support for room air conditioning, spaciousness of the queue location, entertainment support in the queue (audio-video) are things that need to be considered.
- e. Facilitate bank officers in reaching the office. This is expected to facilitate officers in serving customers well without being disturbed by the delay in entering the office because of crowded and congested streets.

### Previous Research

Abdallah and Lubis (2014) observed that the factor of belief or religiosity very dominant influence on the interest of saving. The research was conducted on students of Madrasah Aliyah Negeri (MAN) in Medan City. Another factor that is a major constraint in attracting savings MAN students in Medan is the location. The availability of an easily accessible branch office is expected to help increase interest in saving in Islamic Commercial Banks.

Another study conducted by Abhimantra et al (2013) concerning Analysis of Factors Affecting Customers (Students) in Choosing Savings in Sharia Banks. The results of the study illustrate that knowledge, religiosity, products, reputation and service in Sharia Banks have a positive influence on the decision to choose to save in Sharia Banks, although not significant. Knowledge is the least influential factor compared to other factors. Yuliawan (2011) argues that knowledge can be improved both through promotion and socialization, especially about the difference between interest rates and profit sharing. Knowledge has the potential to be developed in increasing the number of customers saving in Sharia Banks.

Andespa (2017a) has studied the influence of culture and family to customers' interest of saving in Sharia Banks. The results of these studies indicate that culture and family have an influence on the customers' interest of saving in Sharia Banks.

### Hypothesis

The study which also discusses the effect of knowledge on customer decisions about saving in Sharia Banks conducted by Abhimantra et al (2013) resulted in a conclusion that knowledge and other factors in the study had a positive effect on customers' decisions to save in Sharia Banks, even though the results of the study were not significant. Therefore, the researcher formulated the hypothesis as follows:

**H<sub>1</sub>:** Sharia Accounting Knowledge has a significant positive effect on decision of saving in Sharia Commercial Banks.

The research which also discusses the effect of religiosity on customers 'decision to save in Sharia Banks conducted by Abhimantra et al (2013) resulted in a conclusion that religiosity and other factors in the study had a positive effect on customers' decisions to save in Sharia Banks, even though the



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results of the study were not significant. Therefore, the researcher formulated the hypothesis as follows:

**H<sub>2</sub>:** Religiosity has a significant positive effect on decision of saving in Sharia Commercial Banks.

Andespa (2017a) once conducted a study that tested the influence of culture and family on the customers' interest of saving in Sharia Banks. Culture and family are indicators of the social environment. The study shows that there is a significant influence between culture and family on interest of saving in Sharia Banks. Therefore, the researcher sets the hypothesis as follows:

**H<sub>3</sub>:** Social Environment has a significant positive effect on decision of saving in Sharia Commercial Banks.

The study on the influence of location on customer decisions conducted by Abdallah and Lubis (2014) where the results of the study stated that the location has a positive effect on the interest of MAN students to save in Sharia Banks in Medan City. Location is also one of the factors that affect customers due to the closeness between the customer's home and the bank's location. Locations that are easily accessible by vehicles and Sharia Bank facilities such as ATM Machine that are easily found will make customers feel comfortable. Therefore the researcher formulated the hypothesis as follows:

**H<sub>4</sub>:** Location has a significant positive effect on decision of saving in Sharia Commercial Banks.

### 3. RESEARCH METHODOLOGY

#### Scope of Research

This research is quantitative descriptive. As the name implies, this research uses data in the form of numbers or numbers for the quantitative data to be processed in such a way and analyzed using mathematical or statistical techniques. The meaning of descriptive research is research carried out to determine the value of independent variables, either one or more (independent) without making comparisons or connecting with other variables (Sugiyono, 2013). Descriptive research in this study is intended to determine the effect of sharia accounting knowledge, religiosity, social environment, and location on the decision of saving in sharia Commercial Banks. The location where this research takes place is Sriwijaya University, both Inderalaya and Palembang campus.

#### Types and Sources of Data

The type of data used in this study is primary data. Primary data is data that is given directly by data sources to data collectors (Sugiyono, 2015). Primary data in this study include sharia accounting knowledge, religiosity, social environment, location, and decision of saving where the primary data is obtained directly through a questionnaire distributed to accounting students of Sriwijaya University.

#### Data Collection

Data collection techniques used in this study used survey methods using questionnaires as a tool to collect the data needed. The survey method itself is a method of collecting primary data whether it is done orally (interview) or writing (questionnaire). According to Kuncoro (2009), this technique requires each respondent to read and answer the questions provided. The questionnaire in this study was made and modified based on the questionnaire that was already present in the previous research, then the researchers added questions that the researchers compiled based on the applicable indicators.

#### Population and Samples

Supranto (2008) said that population is a collection of all similar elements but can be distinguished from each other because of their characteristics. The population in this study were the accounting students of Sriwijaya University, which amounted to 1,037 people covering the class of 2016, 2017, and 2018 (the number above included Accounting students S1 Indralaya campus, Palembang campus, and origin D3).

The sampling technique used in this study is a non-probability sampling technique where each member of the population does not have the same possibility to be sampled. The method used in



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sampling is purposive sampling. According to Sugiyono (2013), purposive sampling is a technique for determining research samples with certain considerations with the aim so the data obtained is more representative. The criteria for sampling for this study include:

- Active students of Accounting Department (S1) 3<sup>rd</sup> semester through 8<sup>th</sup> semester, Sriwijaya University.
- Students who are or have taken courses of Sharia Accounting.

Determination of the number of samples is done using the Slovin formula, then the number of samples based on the calculation of the formula is 300 Accounting students of Sriwijaya University.

### Variable Operational Definition

The regression model used in this study is a logistics function:

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 \text{Aksyar} + \beta_2 \text{Religi} + \beta_3 \text{Sosial} + \beta_4 \text{Lokasi}$$

Notes:

$\ln\left(\frac{p}{1-p}\right)$  : Decision of saving in sharia commercial banks

$\beta_0$  : Constant

$\beta_1 - \beta_4$  : Coefficient of regression

Aksyar : Sharia accounting knowledge

Religi : Religiosity

Sosial : Social environment

Lokasi : Location

### Dependent Variable

Method used to measure decision of saving in Sharia Commercial Banks, which are the dependent variables (Y) in this study, by presenting data from these variables in dummy form:

1 = Students save in Sharia Commercial Banks

0 = Students do not save in Sharia Commercial Banks

### Independent Variables

- Sharia Accounting Knowledge

Setiadi (2008) argues that knowledge is a learning outcome that is defined as information stored in memory. Sharia accounting knowledge is all information obtained during the learning process (lectures) of sharia accounting. Evaluation of sharia accounting knowledge possessed by students is then conducted to determine the level of student knowledge about sharia accounting. Knowledge of sharia accounting in this study is presented in a dummy form where accounting students who have taken or are taking sharia accounting courses are categorized into two, namely 1 (students with good Islamic accounting knowledge) and 0 (students with poor Islamic accounting knowledge). The criteria in categorizing accounting students with good or poor sharia accounting knowledge are:

1 = Students get A or B score

0 = Students get C to F score

- Religiosity

Religiosity is a religious activity carried out by a person not only in worship but other activities driven by supernatural powers. The religiosity indicators can be measured through 5 dimensions according to Glock and Stark in Ancok and Suroso (2011), which are:

1) Dimension of Belief (Ideological)

2) Dimension of Religious Practice (Ritualistic)

3) Dimension of experience (Experiential)

4) Dimension of Religious Knowledge (Intellectual)



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### 5) Dimension of Consequences

#### c. Social Environment

According to Purwanto (2003), social environment is an environment that exists in society that is closely related to daily life. Dewantara (2010) stated that the social environment is divided into three:

- 1) Family environment (first environment)
- 2) School environment (second environment)
- 3) Community environment (third environment)

#### d. Location

The location of the bank is the place where the products of the bank branch are traded and the banking control center. Determining the location of the bank must be strategic so that it is easily known and accessible to the public (Wahjono, 2010). The indicators of the location are:

- 1) Access
- 2) Visibility
- 3) A large and safe parking lot
- 4) Expansion
- 5) Environment

### Data Analysis

This study uses descriptive quantitative methods in its analytical techniques. The data obtained is then processed and analyzed in stages through several tests which include the research instrument test to see the level of feasibility and confidence level of the questionnaire on the research variables, the classic assumption test to test the feasibility of the regression model, and the last is the hypothesis test. The tests are carried out using the SPSS application.

### Research Instrument Test

- a. Validity test
- b. Reliability Test

### Classic Assumption Test

According to Suharjo (2008), the logistic regression assumption is not the same as linear regression, in logistic regression researchers predict the dichotomous dependent variable (dummy value). The assumption in logistic regression do not require a linear relationship between the independent variable and the dependent variable. he assumption of logistic regression also does not require the assumption that error variance (residual) is normally distributed and assumes homoschedasticity. herefore, the classic assumption test performed on logistic regression in this study is only the multicollinearity test

### Hypothesis Test

Hypothesis test in this research is binary logistic regression test. Binary logistic regression analysis that will be carried out in this study include omnibus test, hosmer and lemeshow test, classification result, pseudo R square, wald, and odds ratio.

## 4. RESULTS AND DISCUSSIONS

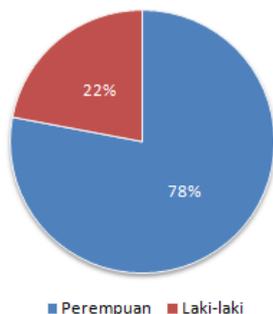
### Description of Research Object

Sriwijaya University or commonly abbreviated as Unsri is one of the state universities in the province of South Sumatra. Noted there are 10 faculties in Unsri, one of them is the Faculty of Economics which is the oldest faculty in Unsri. The Faculty of Economics for undergraduate program (S1) has 3 departments that are Management, Development Economics, and Accounting.

The population in this study were 1,037 S1 Accounting study program students (covering the class of 2016, 2017, and 2018). Given that the Sharia Accounting course has been used as a compulsory

subject in the Accounting S1 curriculum, this has become something interesting to discuss because every S1 Accounting student is required to attend the course, both Muslim and non-Muslim.

The sample in this study was taken using a purposive sampling technique where there are certain criteria in sampling. The number of samples calculated using the Slovin formula is 300 Accounting students at Sriwijaya University. The proportion of samples taken by gender (sex) can be seen in Figure 3

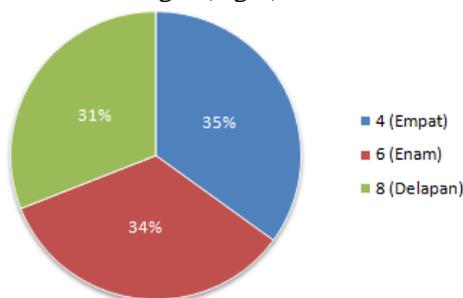


Source : Primary Data Processed, 2019

**Figure 3: Diagram of Sample Porportion by Gender**

The number of female samples in the diagram above looks more dominant. Female fulfill 78% quota or as many as 234 students while male samples only fulfill 22% or 66 students of 300 Sriwijaya University Accounting students who were sampled in this study.

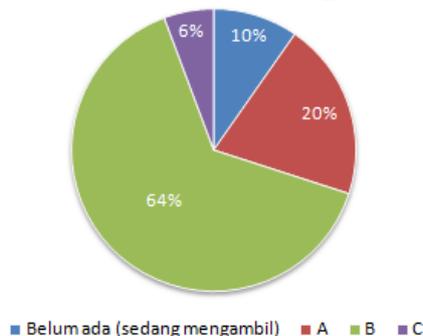
If viewed from the semester being taken by the sample, the proportion of the sample taken can be said to be quite proportional. According to Figure 4 the composition of the sample consisted of Accounting students of 2018 who were taking semester 4 (four) as much as 35% or 105 people, Accounting students of 2017 who were taking semester 6 (six) as much as 34% or 102 people, and Accounting students of 2016 who were taking 8 (eight) semesters as much as 31% or 93 people.



Source : Primary Data Processed

**Figure 5: Diagram of Sample Proportion Based on Semester Taken**

Accounting students who are or have taken sharia accounting course can be categorized as follows:



Source : Primary Data Processed

**Figure 6: Diagram of Sample Proportion Based on Sharia Accounting Scores Obtained**



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The dominant score obtained by Accounting students in sharia accounting courses is B, which is 64% or 193 students obtain this score. Then followed by students who get an A score of 61 students or 20%. Students who obtain a C score of 6% or 17 people and students who have no score or are taking courses in sharia accounting as much as 10% or 29 people.

According to Figure 6, it can also be classified that students who have good sharia accounting knowledge (code 1) are 84% or as many as 254 students. While students who have poor sharia accounting knowledge (code 0) amount to 16% or as many as 46 students.

### Data Analysis

#### Research Instrument Test

##### a. Validity test

Variabel	Pernyataan	r hitung	r tabel	Keterangan
Religiusitas	P1	.639	.113	Valid
	P2	.786	.113	Valid
	P3	.820	.113	Valid
	P4	.778	.113	Valid
	P5	.750	.113	Valid
	P6	.649	.113	Valid
	P7	.728	.113	Valid
	P8	.753	.113	Valid
	P9	.695	.113	Valid
	P10	.749	.113	Valid
	P11	.741	.113	Valid
	P12	.715	.113	Valid
	P13	.734	.113	Valid
	P14	.729	.113	Valid
	P15	.696	.113	Valid

Source : Primary Data Processed

**Table1: Results of Validity Test of Religiosity Variable**

The table above shows that all items for the Religiosity variable are declared valid because based on the results of the validity test, the results show that the value of  $r$  count  $>$   $r$  table (0.113). This means that all statements for religiosity variables can be used to express what is measured.

Variabel	Pernyataan	r hitung	r tabel	Keterangan
Lingkungan Sosial	P1	.685	.113	Valid
	P2	.713	.113	Valid
	P3	.575	.113	Valid
	P4	.626	.113	Valid
	P5	.674	.113	Valid
	P6	.611	.113	Valid
	P7	.728	.113	Valid
	P8	.762	.113	Valid
	P9	.698	.113	Valid

Source : Primary Data Processed

**Table 2: Results of Validity Test of Social Environment Variable**

The table above shows that all items for the Social Environment variable are declared valid because based on the results of the validity test, the results show that the value of  $r$

count > r table (0.113). This means that all statements for social environment variables can be used to express what is measured.

Variabel	Pernyataan	r hitung	r tabel	Keterangan
Lokasi	P1	.707	.113	Valid
	P2	.694	.113	Valid
	P3	.728	.113	Valid
	P4	.814	.113	Valid
	P5	.835	.113	Valid
	P6	.805	.113	Valid
	P7	.851	.113	Valid
	P8	.813	.113	Valid
	P9	.786	.113	Valid
	P10	.816	.113	Valid
	P11	.776	.113	Valid
	P12	.703	.113	Valid
	P13	.786	.113	Valid

Source : Primary Data Processed

**Tabel 3: Results of Validity Test of Location Variable**

The table above shows that all items for the location variable are declared valid because based on the results of the validity test, the results show that the value of r count > r table (0.113). This means that all statements for location variables can be used to express what is measured.

## b. Reliability Test

No	Variabel	Cronbach's Alpha	Keterangan
1	Religiusitas	.937	Reliabel
2	Lingkungan Sosial	.838	Reliabel
3	Lokasi	.942	Reliabel

Source : Primary Data Processed

**Tabel 4: Results of Reliability Test**

Based on the results of the reliability test conducted using SPSS 16.0, the cronbach's alpha value was obtained on the variables of religiosity, social environment, and location, are 0.937, 0.838 and 0.942. The cronbach's alpha value of the three variables > 0.60. Therefore, the questionnaire used is consistent. Questionnaires can be used to measure the same symptoms elsewhere.

## Hypothesis Test

### a. Omnibus Test

The calculated chi-square value in the Omnibus Tests of Model Coefficients table 15,351 > chi-square table which is 9,49 or with a significance of 0,004 < 0,05 indicates the simultaneous influence of shariah accounting knowledge, religiosity, social environment, and location on decision of saving in Sharia Commercial Bank.

### b. Hosmer dan Lemeshow Test

The calculated chi-square value in the Hosmer and Lemeshow Test table is 12.591 < chi-square table which is 15.51 and sig. 0.127 > 0.05. This indicates that the logistic



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regression model used can be accepted (fit) or in other words the regression model can be used to explain the variable relationship.

### c. Classification Result

The overall percentage value in the Classification Table<sup>a</sup> table is 70,7. This value means that the accuracy of the research model in predicting the value that occurs is 70.7%.

### d. Pseudo R Square

Nagelkerke r square value in model summary table is 0,071. This means that the ability of the independent variable in explaining the dependent variable is 7.1%, while the other 92.9% is influenced or explained by other factors (variables) outside the model in this study.

### e. Wald

Sig value (wald test) in the Variables in the Equation table > 0.05 indicates that sharia accounting knowledge, religiosity and location variables do not have a significant partial effect on decision of saving in Sharia Commercial Banks. Only social environment variable has sig value (wald test) in the Variables in the Equation table < 0.05, indicating that only social environment variable has a significant partial influence on decision of saving in Sharia Commercial Banks.

### f. Odds Ratio

The value of Exp (B) in the Variables in the Equation table shows the relationship between the independent variable and the dependent variable. Every increase by 1 on the independent variable, the decision of saving in a Sharia Commercial Bank will increase by Exp (B) times.

## Discussion

According to the results of the binary logistic regression test that has been done, the binary logistic regression model used in this study can be written as follows:

$$\ln\left(\frac{p}{1-p}\right) = (-3,159) + 0,104Aksyar + (-0,033)Religi + 0,097Sosial + 0,021Lokasi$$

Notes:

$\ln\left(\frac{p}{1-p}\right)$  : Decision of saving in sharia commercial banks

Aksyar : Sharia accounting knowledge

Religi : Religiosity

Sosial : Social environment

Lokasi : Location

### The Effect of Sharia Accounting Knowledge on The Students' Decision of Saving in Sharia Commercial Banks (H<sub>1</sub>)

The results of testing hypothesis 1 indicate that the significance value is 0.765 where the value is > 0.05 (H<sub>0</sub> is accepted, H<sub>1</sub> is rejected). This value means that the sharia accounting knowledge does not significantly affect the decision of saving in Sharia Commercial Bank. This result is in accordance with the research conducted by Abhimantra et al (2013) that found a positive influence between knowledge on the decision pf choosing to save in Sharia Banks, although not significant.

The regression coefficient (B) of 0.104 indicates the positive influence of sharia accounting knowledge on decision of saving in Sharia Commercial Banks. The magnitude of influence is indicated by the value of Exp (B) or also called Odds Ratio (OR) of 1,110. That is, when students have good knowledge of sharia accounting (code 1), the decision of saving in Sharia Commercial Bank will increase by 1,110 times compared to students who have poor knowledge of sharia accounting (code 0).



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### **The Effect of Religiosity on The Students' Decision of Saving in Sharia Commercial Banks (H<sub>2</sub>)**

The results of testing hypothesis 2 show that the significance value is 0.108 where the value is  $> 0.05$  ( $H_0$  is accepted,  $H_2$  is rejected). This value means that religiosity does not significantly influence the decision of saving in Sharia Commercial Bank. This result is in accordance with the research conducted by Abhimantra et al (2013) that found a positive effect of religiosity on the decision of choosing to save in Sharia Banks but was not significant.

The regression coefficient (B) of -0.033 shows the negative effect of religiosity on the decision of saving in Sharia Commercial Banks. The magnitude of the effect is indicated by the value of Exp (B) or also called Odds Ratio (OR) of 0.968. That is, when the value of religiosity increases by 1 then the decision of saving in Sharia Commercial Bank will increase by only 0.968 times or in other words it will decrease by -0.032.

### **The Effect of Social Environment on The Students' Decision of Saving in Sharia Commercial Banks (H<sub>3</sub>)**

The results of testing hypothesis 3 indicate that the significance value is 0.006 where the value is  $< 0.05$  ( $H_3$  is accepted,  $H_0$  is rejected). This value means that the social environment significantly influences the decision of saving in Sharia Commercial Bank. This result is in line with the research conducted by Andespa (2017a) that found that each culture and family had a significant positive influence on the customers' interest of saving in Sharia Banks

The regression coefficient (B) of 0.097 shows the positive influence of the social environment on the decision of saving in Sharia Commercial Banks. The amount of influence is indicated by the value of Exp (B) or also called Odds Ratio (OR) of 1.102. That is, when the value of the social environment increases by 1, the decision of saving in Sharia Commercial Bank will increase by 1,102 times.

### **The Effect of Location on The Students' Decision of Saving in Sharia Commercial Banks (H<sub>4</sub>)**

The results of testing hypothesis 4 indicate that the significance value is 0.215 where the value is  $> 0.05$  ( $H_0$  is accepted,  $H_4$  is rejected). This value means that the location has no significant effect on the decision of saving in Sharia Commercial Bank. This result is in accordance with the research conducted by Abdallah dan Lubis (2014) that found result that location factor influence the interest of MAN students in saving at Sharia Banks in Medan City.

The regression coefficient (B) of 0.021 shows the positive influence of the location on the decision of saving in Sharia Commercial Banks. The amount of influence is indicated by the value of Exp (B) or also called Odds Ratio (OR) of 1.021. That is, when the location value increases 1, the decision to save at a Sharia Commercial Bank will increase by 1.021 times.

## **5. CONCLUSION**

The following conclusions from the results of the research are:

1. Sharia accounting knowledge, religiosity, social environment, and location simultaneously have positive effect on students' decision of savings in Sharia Commercial Banks.
2. In partially, Sharia accounting knowledge, Religiosity, and location of the sharia bank are not effect the decision of saving in Sharia Commercial Banks.
3. The social environment partially has a positive effect on the decision of saving in Sharia Commercial Banks.



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## THE EFFECT OF LOAN PORTFOLIO DIVERSIFICATION ON BANK STABILITY WITH MARKET CONCENTRATION MODERATION IN BANK BUKU III AND IV LISTED ON THE INDONESIA STOCK EXCHANGE (BEI) 2013 - 2019

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### Abstract

This study aims to examine the effect of loan portfolio diversification on bank stability by moderating the market concentration variable. The data used were commercial bank audited financial report data for the study period 2013 to 2019. We used panel data regression analysis with the measurement of loan portfolio diversification using the Z-Score and market concentration using the Herfindahl-Hirschman (HHI) index and the Concentration Ratio (CR). The results revealed that the loan portfolio diversification carried out by banks had a significant effect on bank stability, yet not on market concentration. We also noted that market concentration had a significant effect in moderating the effect of loan portfolio diversification on bank stability. The limitation of this research was that the research model was still not perfect thus it is still potential to be developed again, for instance by adding predictor variables or a longer research period. The contribution of this research is aimed at the banking sector and banking regulators, and meant to pay attention to the provision of unbalanced credit allocations in one particular sector that can disrupt bank stability and obviously the economic stability of a country, especially where the financial system is dominated by the banking sector

**Keywords:** *Loan portfolio diversification, market concentration, bank stability, banking sector.*

### 1. INTRODUCTION

The Financial System Stability Index (ISSK) is an index that can be used to identify or monitor the development of factors causing economic stability or instability. The issue of financial and bank stability has always been the concern of all central banks around the world since it is very important for the sustainability of the banking industry itself (Karim, Al-Habshi, & Abduh, 2016). ISSK in Indonesia fluctuated from 2004-2019. In 2008, the stability of the financial system in Indonesia was unstable due to the economic crisis, starting with the US experiencing the collapse of the largest financial institution, Lehman Brothers, due to the bad credit case in the housing sector (subprime mortgage). The concentration of lending in the commercial real estate sector is one of the factors contributing to the possibility of closing banks in the United States (Cole & White, 2012). The global financial crisis of 2008 not only shook most of the financial markets and institutions, but also raised fundamental problems regarding market forces, including concentration or market share, particularly the role of bank equity capital, especially from the bank viability perspective (Mirzaei, Moore, & Liu, 2013). The concentration of lending in the commercial real estate sector was one of the factors contributing to the possibility of bank closure in the United States (Cole & White, 2012). After 2008, ISSK was proven successful with the decrease in the financial stability index per December 2019 with a stability index of 0.83 (Bank Indonesia, 2020).

Financial stability can be seen as the ability of banks to allocate resources efficiently in space and time and to assess and manage financial risks through their own revision mechanisms (Diamond, 1984). Financial stability is also closely related to the level of economic growth of a country. Indonesia's competitiveness index decreased by 5 levels in 2019 and was ranked in the 50th out of 141 countries in the world (Schwab, 2019, p. 8). The downgrade of competitiveness describes the current



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economic condition is lower than the previous period. On the macroeconomic stability indicator, Indonesia was ranked 54th (Schwab, 2019, p. 8).

Bank stability can also be seen from the value of a bank's non-performing loan (NPL). A higher NPL value indicates that a bank is powerless to manage credit risk (Abuzayed, Al-Fayoumi, & Molyneux, 2018).. In general, the NPL of banks in Indonesia is maintained at below 5%, however, NPL based on capital ownership shows that Bank Buku I and Buku II increased in 2019 when compared to the 2016 period. On the contrary, the NPL of Bank Buku III and Bank Buku IV actually showed a decrease in 2019 when compared to the 2016 period or can be counted more stable. Meanwhile, bank lending in Indonesia, based on the business sector, NPL in 2016-2019 period was quite good (below 5%) although there were five sectors that had the highest NPL rate trend and one of which was the mining sector (NPL in 2016 reached 7.16%, then decreased in the next period to 6.8%, then decreased to 4.66% in 2018, and finally showed a figure of 3.58% in 2019).

Bank stability is also inseparable from the important role of market concentration. This is in line with the concentration-stability viewpoint that means a higher market concentration will increase financial system stability (Bretschger, Kappel, & Werner, 2012). Market concentration is negatively related to bank bankruptcy risk. In accordance with the "concentration-stability" view, banks in a less competitive environment have better profit opportunities and potential to increase charter value since high profits reduce incentives for banks to take excessive risks (Shim, 2019).

One of the strategies implemented by the bank is diversification. Furthermore, it is stated that credit diversification is inversely proportional to the risk of bank bankruptcy, which implies that commercial banks may be able to reduce financial fragility from diversifying their credit portfolios (Shim, 2019). Diversification is chosen strategically thus it does not fluctuate significantly from year to year (Guerry & Wallmeier, 2017). Commercial banks that specialize in credit card loans have a higher probability of bankruptcy than commercial banks with a traditional mix of products (Sinkey & Nash, 1993). Diversification of bank credit portfolios reduces the realized risk determined by the amount of bad debts, especially for large commercial banks in Australia (Rossi, Schwaiger, & Winkler, 2009).

Previous research or studies provided research results with a variety of different opinions. A research studying on commercial banks in the United States for the 2002-2013 period implied that loan portfolio diversification provided a positive impact on bank stability, market concentration, and positively increased bank stability (Shim, 2019). Another study actually proved that loan portfolio diversification did not increase bank profitability and did not reduce bank credit risk (Adzobu, Agbloyor, & Aboagye, 2017). Diversification of loan portfolios also did not necessarily improve the performance and security of Italian banks (Acharya, Hasan, & Saunders, 2006).

From the previous researches, there is still a research gap regarding the impact of loan portfolio diversification. Based on the aforementioned problems: (1) does loan portfolio diversification affect bank stability in Indonesia? (2) does market concentration influence bank stability? and (3) what are the important bank and economic characteristics that significantly affect bank financial stability? In this case, the authors aim to prove empirically for Indonesia on a financial system dominated by the banking sector considering there is still limited research on that issue. Analyzing the relationship among bank market strength, financial stability in Indonesia, and a less competitive banking market is deemed relevant as a benchmark for policy makers in developing countries' markets who share similar characteristics (Yusgiantoro, Soedarmono, & Tarazi, 2019). Further development regarding variable measurement can be adjusted to the Indonesian financial system, in particular regarding the measurement of the variable loan portfolio diversification and market concentration. Optimistically, this can be one of studies to complete the research gap on the research period of 2013 - 2019.

This study contributes in several ways, including a study on the Indonesian banking sector considering Indonesia is an example of a developing country that adopts a financial system dominated by the banking sector (bank-based country), which to our knowledge has not been widely conducted. This is reflected in the dominance of the banking sector by 76.36% and 23.64% of other non-bank



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institutions. Banks have a very important and strategic role in supporting national economic development. This study applied two types of market concentration measurements, which are the Herfindahl-Hirschman index (HHI) and the Concentration Ratio (CR). In addition, this study used the division of business sectors that were adjusted to the economic sector in Indonesia into eight types of sectors. Through differences in research samples, this study is able to contribute to the previous research period.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### **Loan Portfolio Diversification**

Conceptually, most of the financial assets owned are part of a portfolio. Banks and other non-bank financial institutions are required by law to have diversified portfolios, even individual investors. Those who regard a security ownership as their total wealth, generally owned a portfolio, not only just in one company since diversification could reduce risk exposure (Ehrhardt & Brigham, 2017). Risk of portfolio decline or bankruptcy risk means that the return on assets of a financial institution would be lower than a given threshold (i.e., the level of deposits in the bank's capital structure), an event that constitutes a "default" or economic bankruptcy (Acharya, Hasan, & Saunders, 2006). Bank loan portfolio diversification reduced realized risk which was determined by the amount of bad loans (Rossi, Schwaiger, & Winkler, 2009). There are also several studies implied that diversified companies had significantly less value than the sum of their respective shares. Other studies also revealed that diversification was not guaranteed to produce superior performance and/or greater security for banks as for high-risk banks, diversification reduced bank returns while producing riskier loans (Acharya, Hasan, & Saunders, 2006).

#### **Bank Stability**

Stability or failure of the banking sector can be caused by other sectors or factors, namely a decline in the amount of third-party funds, disruptions to the banking payment system, defaults from loan customers, a country's economic recession, and others. When bank stability affects financial sector stability, regulators will issue policies with one of which is to maintain banking sector stability. Stability showed that banks were able to reduce risk at a higher level of diversification (Abuzayed, Al-Fayoumi, & Molyneux, 2018). This study follows the literature using the Z-Score as a proxy measure of bank financial stability (Shim, 2019). This indicates that a lower risk of bankruptcy or instability is associated with a higher Z-Score (Ali & Pua, 2018). The Z-Score of each bank is measured by the return on assets (ROA) plus the ratio of capital to assets divided by the standard deviation of ROA. A higher Z-Score value indicates a lower probability of bank default (Shim, 2019).

#### **Market Concentration**

In accordance with the viewpoint of the "concentration-stability" theory where the banking system is concentrated and indicated by several large banks is considered more stable where banks in a highly concentrated market are more profitable, more diverse, better (Diamond, 1984). The "concentration-stability" view also forms the basis of several studies, one of which is a study examining 69 countries that implied banking crises were less likely to occur in a more concentrated banking system (Beck, Demirgüç-Kunt, & Levine, 2006). Banks in a concentrated market use market power to generate higher rental fees or borrowing interest costs, however, when the interest rate charged is much higher, borrowers will increase their business risk and reduce profits, which in turn increases their risk of bankruptcy (Shim, 2019).

According to the previous studies, this research adapted the Shim (2019) research model by connecting the loan portfolio diversification variable to the stability bank by positioning market concentration as moderation. However, there is still some uncertainty about the results that can be debated scientifically. Shim's research (2019) proved that loan portfolio diversification and market concentration had a positive impact on bank stability. Rossi, Schwaiger, & Winkler (2009) found that diversification was able to minimize actual risk and reduce cost efficiency. Meanwhile, there are four diversification factors (credit, deposits, assets, and geography) that enable to reduce profits and increase bank costs (Berger & Bouwman, 2012). Amidu, Mohammed, & Wolfe and Simon (2013)



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found that competition provided a positive and significant relationship to stability, since competition increases stability as diversification between or both activities that generate interest and non-interest at banks increases. Chang, Guerra, Lima, & Tabak (2008) found that a more concentrated banking system was able to improve financial stability. Another study actually proved that loan portfolio diversification did not increase bank profitability and did not reduce bank credit risk (Adzobu, Agbloyor, & Aboagye, 2017).

### 3. RESEARCH METHODOLOGY

#### Data

This study examined Bank Buku III and IV listed on the Indonesia Stock Exchange (IDX) during the 2013-2019 period attained from the Indonesian banking sector in the form of conventional banks. The data used were in the form of audited financial statements of each bank that was sampled throughout the study period and from the Thompson Reuters database. The samples were obtained using judgment sampling technique. This was adjusted to the category used in the study, namely conventional commercial banks listed on the IDX that were deemed consistent and owned complete financial reports during the study period. The study obtained 12 bank samples consisting of six banks (BRI, BNI, Bank Mandiri, BCA, CIMB Niaga, and Danamon) as the samples of the Bank Buku III and six banks (BTN, BDP Jabar Banten, BPD Jatim, Permata, BRI Agro, and BTPN) as the sample of Bank Buku IV.

#### Variables and Model

In building the model, this study referred to the Shim (2019) model. This study applied the bank stability variable as the dependent variable and the loan portfolio diversification as the independent variable. This study used the market concentration variable as a moderating variable and several control variables, including firm size, non-interest share, liquidity, and GDP. The panel data regression analysis was carried out in three stages according to the equation..

Equation 1:

$$BS_{it} = \alpha + \beta_1 LPD_{it} + \beta_2 HHI_{it} + \beta_3 FS_{it} + \beta_4 NS_{it} + \beta_5 LIQ_{it} + \beta_6 GDP_{it} + \varepsilon_1$$

Equation 2:

$$BS_{it} = \alpha + \beta_7 LPD_{it} + \beta_8 CR_{it} + \beta_9 FS_{it} + \beta_{10} NS_{it} + \beta_{11} LIQ_{it} + \beta_{12} GDP_{it} + \varepsilon_2$$

Equation 3:

$$BS_{it} = \alpha + \beta_{13} LDP_{it} * HHI_{it} + \beta_{14} FS_{it} + \beta_{15} NS_{it} + \beta_{16} LIQ_{it} + \beta_{17} GDP_{it} + \varepsilon_3$$

Equation 4:

$$BS_{it} = \alpha + \beta_{18} LDP_{it} * CR_{it} + \beta_{19} FS_{it} + \beta_{20} NS_{it} + \beta_{21} LIQ_{it} + \beta_{22} GDP_{it} + \varepsilon_4$$

#### Bank Stability (BS)

To measure bank stability, a Z-Score was used. It is a proxy for calculating bank financial stability (Sitroh, 2006). The Z-Score is calculated from the return on assets (ROA) plus the capital asset ratio divided by the standard deviation of return on assets (ROA). The Z-Score shows an inverse relationship with the bankruptcy probability. A higher Z-score indicates a lower probability of bank default (Shim, 2019).

#### Loan Portfolio Diversification (LPD)

Bank loan portfolio diversification reduces realized risk which is determined by the amount of bad loans (Rossi, Schwaiger, & Winkler, 2009). This study used the Herfindahl-Hirschman Index (HHI) loan to build a loan-based diversification measure for each bank. Diversification strategy is a consequence of competition that leads healthier to banks finances (Berger & Bouwman, 2012). The



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classification of commercial bank loans is divided into six main sectors, namely commercial real estate loans, construction and industrial loans, residential real estate loans, loans to consumers, agricultural loans, and all other loans (Shim, 2019). Research in Indonesian banking, where each bank has different main sectors, distribution of credit is done according to eight economic sectors (Rivai & Veithzal, 2007), namely: (1) Agriculture, Hunting, and Agricultural facilities/AHA, (2) Mining/MIN, (3) Manufacturing, Water, Gas, and Electricity/MWG, (4) Construction/COT, (5) Trade, Restaurant, and Hotels/TRH, (6) Transport, Cargo Storage, and Communications/TCC, (7) Business Services/BUS, (8) Social Services/SOS. For this reason, the measurement of loan HHI in this study becomes:

$$\text{Loan HHI} = \left( \left( \frac{\text{AHA}}{\text{TOL}} \right)^2 + \left( \frac{\text{MIN}}{\text{TOL}} \right)^2 + \left( \frac{\text{MWG}}{\text{TOL}} \right)^2 + \left( \frac{\text{COT}}{\text{TOL}} \right)^2 + \left( \frac{\text{TRH}}{\text{TOL}} \right)^2 + \left( \frac{\text{TCC}}{\text{TOL}} \right)^2 + \left( \frac{\text{BUS}}{\text{TOL}} \right)^2 + \left( \frac{\text{SOS}}{\text{TOL}} \right)^2 \right)$$

TOL shows the total loan amount equal to the total amount of AHA, MIN, MWG, COT, TRH, TCC, BUS and SOS.

### Market Concentration

The “concentration-stability” view predicts that a concentrated banking system indicated by several large banks is more stable because banks in highly concentrated markets possibly more profitable and more diverse (Diamond, 1984). Measurement of market concentration is done through the Herfindahl-Hirschman (HHI) deposit index and the Concentration Ratio (CR).

$$\text{HHI} = \left( \sum_{i=1}^n \text{MS}_i^2 \right) \times 100$$

Source: (Jumono, Abdurrahman, & Mala, 2017)

MS<sub>i</sub> is the banking market share of the bank *i*. A score close to 1 is considered better, indicating that there is intense competition (Jumono, Abdurrahman, & Mala, 2017). Measurement of market concentration also used the concentration ratio.

$$\text{CR}_t = \sum_{j=1}^n \text{MS}_{jt}, \quad \text{dengan MS}_i = \frac{S_i}{S_t} \times 100$$

Source: ((Jumono, Abdurrahman, & Mala, 2017)

For the concentration ratio (CR), MS<sub>i</sub> is the market share of bank *i*, S<sub>i</sub> is the volume of deposits or credit of bank *i*, and S<sub>t</sub> is the total volume of bank deposits or credits in Indonesian rupiah (IDR) (Jumono, Abdurrahman, & Mala, 2017)

### Firm Size (FS)

Firm size (bank) is calculated based on the value of total assets per period according to the study sample period as measured by the natural logarithmic (ln) proxy of total assets according to the calculation of the formula used to measure firm size (Shim, 2019). This study measured the natural logarithm of total assets as a proxy for firm size.

### Non-Interest Share (NS)

This study included a non-interest share of bank operating income to examine the impact of an increase in non-interest income on bank stability. Replacing traditional lending activities with non-interest and fee-based banking activities is associated with higher volatility in bank earnings



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(DeYoung & Roland, 2001) The increase in exposure to non-interest activities was relatively volatile but still more profitable than lending activities (Sitroh, 2006). A higher share of non-interest income in total income is expected to be negatively related to bank stability if an increase in non-interest income is more prone to high volatility.

### Liquidity (LIQ)

Liquidity management is the management of bank liquidity risk which means that the bank will not be able to meet requests for withdrawal of deposits and/or other liabilities when the due date (Melicher & Norton, 2017). During the financial crisis period, several financial institutions experienced failure since they were unable to meet their liquidity. Banks that own high cash are able to reduce liquidity risk and the possibility of failure (Berger & Bouwman, 2012). Banks with more liquid assets tend to be less likely to fail (Cole & White, 2012). Thus, liquidity is expected to have a positive relationship with bank financial stability. Liquidity is calculated by dividing liquid assets (total cash and securities) by total assets (Shim, 2019, p. 108).

### Gross Domestic Product (GDP)

Gross Domestic Product as the value of final goods and services produced by various production units in the territory of a country in a certain year (Wahyudi, Hersugondo, Laksana, & Rudy, 2017). Measurement of gross domestic product, namely the market value of all final goods and services produced in the economy at a certain time period or by the aggregate income obtained by all households, all companies, and the government in the economy sector at a certain time period (Piros & Pinto, 2013, p. 200). GDP is calculated  $(C + I + G + (XM))$ , where C is consumer expenditure on final goods and services, I is investment, G is government expenditure on final goods and services, X is exports, and M is imports.

Table 1: Definition of variables

Variables		Description
Bank Stability (Z-Score)	BS	Return on assets (ROA) plus capital to asset ratio divided by the standard deviation (SD) of ROA
Loan Portfolio Diversification	LPD	Herfindahl index of loan portofolio classified into 8 sectors
Market Concentration	MC	Use 2 measured indicator (Herfindahl index and Market Concentration)
Firm Size	FS	Natural logararithm of total assets
Non-Interest Share	NS	Non-interest income/ (net interest income + non-interest income)
Liquidity	LIQ	Liquid assets (cash and marketable securities)/ total assets
Gross Domestic Product	GDP	Consumption plus Investation plus Government Expenditure plus (Export – Import)

### Descriptive Statistics of the Sample

Descriptive analysis of research variables, such as loan portfolio diversification, market consentration, bank stability, as well as control variables include firm size, non-interest share, liquidity, and gross domestic product.

Table 2 : Deskriptive Statistics

	BS	CR	FS	GDP	HHI	LIQ	LPD	NS
Mean	4,451	1,856	26,003	5,105	52,926	0,081	0,318	0,915
Median	4,125	1,851	25,956	5,033	53,262	0,084	0,273	0,988
Maximum	9,033	1,950	27,979	5,557	53,814	0,215	0,755	1,269
Minimum	0,192	1,744	22,357	4,876	51,361	0,001	0,173	0,351
Std, Dev	2,251	0,063	1,296	0,202	0,773	0,066	0,133	0,183

## 4. RESULTS AND DISCUSSIONS

The results of hypothesis according to the best estimate output in each equation are presented in the following table.

<b>Table 3 : Panel Data Regression Results</b>								
This table describes the estimation of the panel data regression results from the 4 equation models.								
	Equation 1		Equation 2		Equation 3		Equation 4	
	b	t (prob.)	b	t (prob.)	b	t (prob.)	b	t (prob.)
Konstanta	-12,444		-1,796		3,932		4,120	
Loan Portfolio Diversification	6,277	4,126***	6,334	4,152***				
Market Concentration (HHI)	0,343	1,287 (0,202)						
Market Concentration (CR)			3,944	1,168 (0,247)				
LDP * HHI					0,120	4,169*** (0,000)		
LDP * CR							3,478	0,818*** (0,000)
<b>Control Variable</b>								
Firm Size	-0,013	-0,075 0,940	-0,005	-0,027 0,979	-0,040	-0,231 0,818	-0,030	-0,176 0,861
Non-Interest Share	-8,374	-7,662*** (0,000)	-8,363	-7,637*** (0,000)	-8,413	-7,691 (0,000)	-8,423	-7,729*** (0,000)
Liquidity	-6,534	-2,063** (0,043)	-6,655	-2,088** (0,040)	-6,234	-1,974** (0,052)	-6,371	-2,023** (0,047)
Gross Domestic Product	1,036	1,031 0,306	1,025	0,995 0,323	1,517	1,657 0,102	1,428	1,567 0,121
R Square	0,483		0,481		0,475		0,479	
F-stat	11,995		11,903		14,141		14,359	
Sig	0,000		0,000		0,000		0,000	

\*\*\*, \*\* and \* indicate significance at the 1%, 5% dan 10% levels, respectively

This study examined the effect of the loan portfolio diversification variable on bank stability by moderating the variable market concentration. The research results can be presented in the following table:

<b>Table 4: Summary of Hypothesis Test Results</b>		
	Prob.	Description
<i>Loan Portfolio Diversification has a significant effect on Bank Stability</i>	0,000	Supported
<i>Market concentration (HHI) has no significant effect on bank stability</i>	0,202	Not Supported
<i>Market concentration (CR) does not have a significant effect on bank stability</i>	0,247	Not Supported
<i>Market concentration (HHI) moderates the effect of loan portfolio diversification on bank stability</i>	0,000	Supported
<i>Market concentration (CR) moderates the effect of loan portfolio diversification on bank stability</i>	0,000	Supported



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### **The Effect of Loan Portfolio Diversification on Bank Stability**

The results of data analysis showed that H1 was confirmed significant/supported (Prob.  $<0.05$ ). This means that the loan portfolio diversification had a significant effect on bank stability. This explains that the loan portfolio diversification strategy carried out by the banking sector will be able to improve bank financial stability as seen from the value of the regression coefficient of 6.277 point. This indicates that the selection of the business sector and the amount of credit value allocated are very important to maintain bank stability when certain abnormal conditions occur.

This finding is in line with several other studies which explain that bank loan portfolio diversification reduced the realized risk determined by the amount of bad loans (Rossi, Schwaiger, & Winkler, 2009). Loan portfolio diversification provided a positive impact in increasing bank stability (Shim, 2019). Diversification of activities between and both activities that generate interest and non-interest income increased risk-based returns and lowered risk for banks in developing countries (Sanya & Wolfe, 2011). Financial stability increased until bank diversification reached its optimal level, yet then began to decline after bank diversification increased beyond its optimal (Kim, Batten, & Ryu, 2020).

### **The Effect of Market Concentration on Bank Stability**

The findings from the results of data analysis indicated that H2 is declared unsupported (Prob.  $> 0.05$ ) which explains that market concentration did not have a significant effect on bank stability. In this study, two types of market concentration measurement indicators were used, namely the Concentration Ratio (CR) and the Herfindahl-Hirschman Index (HHI). The measurement indicator using the Herfindahl-Hirschman index obtains a coefficient value of 0.343 which explains that when the Herfindahl-Hirschman index increased by one point, it would contribute to an increase in bank stability by 0.343 points with the increase was not significant. Further testing through measurement indicators using the Concentration Ratio (CR) obtained a coefficient value of 3,944 which indicates that when the concentration ratio increased by one point, it only provided a small contribution to the increase bank stability by 3,944 points and again, the increase was not significant.

The measurement of market concentration was measured based on the three largest banks, namely Bank BRI, Bank Mandiri and Bank BCA. This is in line with the "concentration-stability" view predicting that a concentrated banking system indicated by several large banks is more stable because banks in a highly concentrated market may be more profitable and more diverse (Diamond, 1984). Indonesian banks tend to have a good level of stability thus the market concentration of large banks does not have an impact on the stability of other banks. The results of this study were not in line with other studies which stated that a more concentrated banking structure improved bank financial stability (Shim, 2019). Banking concentration had a statistically significant effect on NPLs. This suggests that a more concentrated banking system can improve financial stability (Chang, Guerra, Lima, & Tabak, 2008).

### **The Effect of Market Concentration in Moderating Loan Portfolio Diversification on Bank Stability**

The results of data analysis proved that H3 is declared supported (Prob.  $<0.05$ ), meaning that market concentration moderates the effect of loan portfolio diversification on bank stability. The market concentration interaction test through the Herfindahl-Hirschman index obtained a coefficient value of 0.120. It indicates that when the interaction of loan portfolio diversification and the Herfindahl-Hirschman index increased by one point, it could significantly increase bank stability by 0.120 points. Meanwhile, loan portfolio diversification and market concentration tests through the concentration ratio obtained a coefficient value of 3.478. It implies when the interaction of loan portfolio diversification and concentration ratio increased by one point, it could significantly increase bank stability by 3.478 points. This finding explains that market concentration can strengthen the effect of loan portfolio diversification on banks stability. It signifies that through credit diversification by economic sector while still considering market concentration, bank stability can improve. These



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results are in line with research findings stating that the effect of loan diversification on bank financial stability was positively related to the level of market concentration (Shim, 2019). If diversification is seen as a valid and necessary way to reduce risk by managers, regulators, creditors, and/or owners, it is expected that a more diversified bank can operate with less capital than a more concentrated bank (Rossi, Schwaiger, & Winkler, 2009).

### 5. CONCLUSION

This study aimed to examine the effect of loan portfolio diversification and market concentration on bank stability. This investigated whether the loan portfolio diversification strategy has a significant effect on the stability of banks in developing countries that adhere to a financial system dominated by the banking sector, as found in previous studies using data from developed countries.

Research result in the banking sector in Indonesia can be concluded that the loan portfolio diversification had a significant effect on bank stability, yet not on the market concentration variable. The market concentration variable moderated the effect of loan portfolio diversification on bank stability. Through these findings, it confirms that loan portfolio diversification is very important for increasing bank stability. Bank management can periodically evaluate credit risks in each business sector in order to determine which sectors have the potential to increase their credit distribution and which sectors should the granting credit must be reduced.

### LIMITATION AND STUDY FORWARD

The limitations of this study are mainly in the number of sample sizes that are relatively small thus that the model research is not yet a perfect model. To enrich the conclusions and increase the generalizability of the findings, future research can be carried out by adding predictor variables or by adding a longer research duration thus that comparisons can be done regarding bank stability.

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## PRICE ANALYSIS BETWEEN COMMODITY GROUPS OF INFLATION IN BANTEN PROVINCE IN 2008-2018

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### Abstract

This study aims to see how the movement pattern of each commodity group that forms inflation between one commodity group and another, and also to see any major linkages between groups of inflation-forming commodities in Banten Province. The research is undergone by using the Vector Auto Regressive (VAR) model approach through testing of Impulse Response Function (IRF) and Variance Decomposition (VD). The results show that the inflation rate in the goods / services commodity groups in Banten Province have a dynamic relationship between one another. Inflationary movements in all commodity groups are dominated by the group itself. Monthly time series data is used for 2008-2018 time spans. The insight of knowing the pattern is beneficial for implication policy in regional inflation targeting especially in Banten Province.

**Keywords:** *Inflation, IRF, VAR, VD.*

### 1. INTRODUCTION

The macroeconomic stability of a country can be seen from the country's ability to control inflation. The short definition of inflation is the tendency for prices to increase in general and continuously over a period of time (Mankiw, 2019). The inflation rate in Indonesia can be seen through the Consumer Price Index (CPI). CPI value indicates the change in the average price paid by consumers of a particular group of goods or services. Based on the 2012 Cost of Living Survey (SBH) by BPS, the calculation of consumer goods or services CPI is grouped into seven expense groups. The seven spending groups include; groceries; processed food, beverages, cigarettes, and tobacco; housing, water, electricity, gas, and fuel; clothes; health; education, recreation, and sports; transportation, communications, and financial services.

This study was conducted to find out how the movement patterns of each group of inflation-forming commodities between one commodity group and another group of commodities. However, the price of a commodity in an economy is certainly influenced by other commodity prices. In the production process of a commodity the pricing pattern is influenced by the inputs that play a role in the production process of the output. Thus, this study tries to see how much linkage between the inflation-forming commodity groups in Banten Province.

In this study, we wanted to see how the price of each group of inflation-forming commodities moved randomly and acted as endogenous variables that opened up the effect of price formation by price on other commodity groups. Clements & Izan (1987) in Azwar (2016) by estimating the commodity shaper of the consumer price index simultaneously to see how the movement patterns and associations are. Thus, departing from the result, it can be seen how the economic phenomenon that occurs behind the pattern of interconnectedness between prices on the sharing of commodity groups is shaping inflation.

Inflation is not only happening at the national level, but so does at the regional level. Wimanda (2006) in Azwar (2016) in his study suggested that after the economic crisis the rate of inflation volatility in the region became higher. In addition, between regional inflation and national inflation does not indicate the convergence, so the movement pattern is often different from national inflation. This condition may results in the implementation of monetary policy is not fully effective in suppressing



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the regional inflation rate. This was supported by Carlino & Defina (1998) in Azwar (2016) who mentioned that theoretically monetary policy is a national policy.

The calculation of inflation nationally is the result of a compilation of inflation calculations throughout the region that have been weighted. Inflation in Banten Province is represented by Serang City, Cilegon City and Tangerang City, as CPI city in Banten Province. The inflation weight of these cities is different from each other, where Serang City has an inflation weight of 14.98 percent against the inflation of Banten Province based on survey of living cost at 2012. Meanwhile, the inflation weight of Cilegon city and Tangerang city to Banten Province is 13.11 and 71.91 percent.

Data from Statistics Office (BPS) shows that inflation in Banten Province according to Boediono (2014) is in the category of mild inflation (below 10%). This can be a stimulant to drive the economy of Banten. The high economic activity can be achieved by controlling the rate of inflation. However, there is a trade-off where the increase in output growth (decrease in the unemployment rate) tends to be followed by the rising inflation rate. The tradeoff between the unemployment rate and the inflation rate is indicated by the Phillipis Curve. This condition is indicated by empirical data that occurred in Banten, that although Banten inflation rate is still low it turns out that the open unemployment rate (TPT) placed first among other provinces in 2018 at 7.77% while the national TPT figure was only 5.13%. At the same time, Banten's economic growth rate reached 5.82%. There is a negative relationship between the unemployment rate and economic growth in Banten Province in accordance with Okun Law (Darman, 2013). Therefore, inflation control in Banten Province is key to addressing employment and welfare issues. In line with this, the government has been working to provide jobs through the large number of industries in Banten Province with an industry growth rate in 2017 of 20.87%.

At the time of conducting an analysis on regional inflation control is insufficient for focussing only on certain commodity groups that are considered as the biggest contributors to regional inflation. Other commodity groups also contribute to the formation of regional inflation. There has been some research on the interconnectedness between commodity groups. The results of Ramadhan (2007) in Bima's (2017) study mentioned that the group of processed food commodities, beverages, cigarettes, and tobacco is influenced by food groups, as well as transportation, communication, and financial services. In addition, most of all commodity groups are also affected by the movement of commodity materials themselves. Hartanto (2011) in Bima (2017) examined the price relationship between inflation-forming commodity groups in Indonesia from 2004 to 2010. The results of the impulse response show there are several commodity groups that contribute in determining the price of other commodities.

The interconnectivity of the goods/services commodity group is one of the factors that shape inflation. Inflationary inter-output that can occur due to contagion effect. Contagion is broadly defined as the transmission of shocks between commodity groups of goods/services. Shock can be transmitted qualitatively in two ways, namely the association between commodity groups of goods / services stable (channels), and sudden changes (shifts) in the interconnectedness of fickle persistence. The shock can be negative shocks and also positive spill-over effects. Contagion effect can also be interpreted as propagation of shocks between two or more commodity groups of goods/services. From that definition, the contagion effect between the inflation of the goods/services commodity group can occur because the price shock that occurs in a commodity can be caused by the shock that occurs in other commodity groups. This research discusses the inter-commodity price relationship in inflation in Banten Province. Reason why this study is focused on a regional scale, is that each region has different characteristics especially when associated with commodities that make up regional inflation, so inflation control policies differ in each region.



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### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### *Theory of Inflation*

Inflation is a phenomenon found in almost all countries of the world. Practically the definition of inflation is the general trend of rising prices – the price of goods and services simultaneously and continuously (Mankiw, 2019: 145). These prices do not mean to rise with the same percentage, and in an instantaneous tempo but even if they occur not simultaneously, the price increase that occurs is continuous for a certain period of time. If the price increase occurs only once even in a considerable jump, then it cannot be said that inflation.

The inflation rate is used to describe changes in prices that apply from one period to another. To determine it is necessary to pay attention to consumer price index data from one particular period onwards compared to the price index in the previous period. The formula used to determine the rate of inflation is as follows (Suharyadi & Purwanto, 2013).

$$\Pi = x 100(IHKt-IHKt-1)/(IHKt-1) \quad (1)$$

Description:

- $\Pi$  : Inflation Rate,  
CPI : Period-to-period consumer price index,  
IHKt-1 : Consumer price index period to t-1 (last period).

The classic theory of inflation that is still relevant to explain the process of inflation in the current era is the quantity theory (Boediono, 2014). As for what you want to explain is the role of the following things to inflation.

Inflation can only occur if there is an increase in the volume of money in circulation, without any increase in the amount of money in circulation. The rate of inflation is determined by the rate of increase in the amount of money in circulation and by the psychology (expectations) of the community regarding future prices.

According to Keynes Theory, inflation occurs as a result of a society that wants to live outside the limits of its economic capabilities (Boediono, 2014). The process of inflation, in this view, is nothing but a process of grabbing the share of wealth among social groups who want a greater share than those communities can provide. This process of seizure eventually translates into a situation where the public demand for goods always exceeds the number of goods available (the onset of the so-called inflationary gap).

Inflationary gap arises because the community manages to translate their aspirations into an effective demand for goods. In other words, they managed to raise funds to turn their aspirations into a plan to purchase funds-backed goods. This kind of society may be the government itself, which seeks to gain a greater share of people's output by running deficits in its budget financed by printing new money. The group may also be private entrepreneurs who want new investments and obtain their financing funds from credit from banks. It could be trade unions that are trying to get a raise for their members beyond the increase in labor productivity.

This theory can be called the long-term inflation theory, which is when inflation is associated with structural factors of the economy (Boediono, 2014). There are three things to note, namely as follows. This theory describes the long-term inflation process in developing countries, which is based on experience in Latin American countries. The pressure is on the rigidity of the economic structure of developing countries. This theory is also called the long-term inflation theory because it accompanies the causes of inflation derived from the strength of the economic structure. According to this theory there is a rigidity in the economies of developing countries that can cause inflation, among others.

The rigidity of export receipts, namely the sluggish value of exports compared to the growth of other sectors. This rigidity is due to prices in the world market of the country's exported goods being less profitable and the supply or production of exported goods that are not responsive to rising prices. As a result, the country was forced to take development policies that emphasized the reduction of domestic



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production of previously imported goods, although often domestic production has higher production costs with lower quality resulting in higher prices and this is what causes inflation.

The rigidity of food production from within the country, where domestic grocery production does not grow as fast as population growth and per capita income, so the prices of groceries in the country tend to rise beyond the price increase of other goods. As a result, there is a demand from employees to earn salaries resulting in an increase in production costs which also means an increase in the price of goods that ultimately leads to inflation.

There is an assumption that the amount of money in circulation increases and passively follows and accommodates the price increase – the price. In other words, the inflation process can continue only if the amount of money in circulation also increases steadily. Without an increase in the amount of money the process will stop by itself.

Structural factors are said to be the most basic reason for the inflation process is not 100% structural. It is often found that these information are due to the government's own price or monetary policy.

### ***The Relationship Between Commodity Prices and Inflation Formation***

The prices of each inflation-forming commodity group move randomly and act as endogenous variables that unlock the effect of price formation by price on other commodity groups. As in Clements and Izan (1987) in Azwar (2016) by estimating the commodity shaper of the consumer price index simultaneously to see how the movement patterns and associations are. Thus, departing from the result, it can be seen how the economic phenomenon that occurs behind the pattern of interconnectedness between prices in various commodity groups is shaping inflation.

As well as Stock and Watson (2005) in Azwar (2016), it also uses price data of consumer price index-forming goods groups to enrich the dynamic analysis of interconnectedness between economic variables. Using vector auto-regression (VAR), Stock and Watson models include a number of these time series to see the interconnectedness not only between these commodity groups but also with a number of other macroeconomic variables. Wimanda (2006) in Azwar (2016) in his study on regional inflation in Indonesia suggested that after the economic crisis the level of inflation volatility in the region became higher. Inflation in the transportation group contributes greatly to the shaper of inflation in the region, it is also inseparable from the influence of fuel prices. Then, the increase in prices in the commodity group has an impact on inflation in the food, processed food, and housing groups. In addition, between regional inflation and national inflation does not indicate convergence so the movement pattern is often different from the national inflation movement. This can result in monetary policy not being fully effective in suppressing the rate of inflation in the region. As in Carlino and Defina (1998) in Azwar (2016), it states that theoretically monetary policy is a national-scale policy. However, in reality there is a regional divergence in response to the shocks of these economic aggregate variables.

The development of prices determined by the government (administered prices) as well as fuel oil (BBM), certainly has its own impact on prices in the transportation sector. Then, this will have an impact on other commodities that use fuel oil in the production and distribution process. As in Madjardi (2002) in Azwar (2016), the development of fuel prices which is one of the components of administered prices is often the main cause of the high development of administered goods prices and the development of CPI inflation in general.

In terms of agricultural commodity products, of course, many factors influence the pricing, ranging from season factors, weather, to smooth distribution and supply lines. The price shock that occurs in this commodity that is included in the grocery group, will be directly felt in other commodity groups that use agricultural commodity products or food group as raw materials.

### **3. RESEARCH METHODOLOGY**

#### ***Research Data and Variables***

The data used is secondary data time series, the monthly period of 2008:1 to 2018: 12. Data sources are obtained through official government agencies such as the Central Bureau of Statistics (BPS)



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years edition, The Economic and Financial Statistics of Indonesia (SEKI) issued by Bank Indonesia, and the Annual Report of Bank Indonesia.

The study discussed 7 variables, namely variable inflation-forming commodity groups consisting of food group groups (BAMA); processed food groups, beverages, cigarettes and tobacco (MAJAMIROTE); housing, water, electricity, gas and fuel groups (PALIGABA); sandang group (SAND); health groups (KES); education, recreation and sports groups (PENDIREKOR); transportation, communication and financial services (TRASKOJA).

### *Analysis Method*

The data analysis techniques used for data processing in this study are Vector Autoregressive (VAR) models or vecm models. Prior to var or VECM estimation, testing of research data was conducted. The tests are data stationerity test and co-integration test then followed by optimal lag determination, impulse response function (IRF), decomposition variant (VariantDecomposition). To analyze the data by VAR or VECM method is done the first step is the testing of data stationerity. Data stationerity testing is critical in determining the exact analysis tools of whether VAR or VECM. Data that has a stationer at the level can be used var analysis at the level level. However, if the data is not stationer at the level but at the first degree used var analysis tool at the first level (1<sup>st</sup>) on the condition that there is no data co-integration. In the event of data co-integration, vector error correction model (VECM) estimation is carried out.

### *Data Stationarity Test*

The VAR model requires a data stationerity test. A data is said to be stationary if its average values, variances, and covariance are always constant and independent of time (Gujarati & Porter, 2013). The presence of non-stationary variables increases the likelihood of co-integration relationships between variables, where the coefficient value resulting from the regression result will be invalid due to a biased standard error. Therefore, the root test unit needs to be performed to test whether there is a root unit in the data series used or not. To find out, stationary tests are used using the Augmented Dickey Fuller (ADF) test or the Phillips-Perron (PP) method. In this study the data stationary used was a stationary test or unit root test with Dickey-Fuller test (DF) and Augmented Dickey Fuller (ADF).

In accordance with the purpose of this study to find out how prices are related to the inflation-forming commodity group, this study will be designed using a VAR model that assumes all variables in the model are endogenous and estimated simultaneously (Gujarati & Porter, 2013). Var model estimates include endogenous variables that were influenced by the variables themselves in the previous period (lagged or past value), as well as the influence of other endogenous variables in the model. In addition, before making such estimates, it must also be ensured that the equations in the system are identified either exactly-identified or over-identified.

The equations in the system on this VAR model are as follows:

$$\mathbf{BAMAt} = C_1 + a_{1i} \sum \mathbf{BAMAt-k} + a_{1i} \sum \mathbf{MAJAMIROTEt-k} + a_{1i} \sum \mathbf{PALIGAMAt-k} + a_{1i} \sum \mathbf{SANDt-k} + a_{1i} \sum \mathbf{KESt-k} + a_{1i} \sum \mathbf{PENDIREKORt-k} + a_{1i} \sum \mathbf{TRASKOJAt-k} + a_{1i} \sum \mathbf{INFt-k} + \epsilon_i$$

$$\mathbf{MAJAMIROTEt} = C_2 + a_{2i} \sum \mathbf{BAMAt-k} + a_{2i} \sum \mathbf{MAJAMIROTEt-k} + a_{2i} \sum \mathbf{PALIGAMAt-k} + a_{2i} \sum \mathbf{SANDt-k} + a_{2i} \sum \mathbf{KESt-k} + a_{2i} \sum \mathbf{PENDIREKORt-k} + a_{2i} \sum \mathbf{TRASKOJAt-k} + a_{2i} \sum \mathbf{INFt-k} + \epsilon_i$$

$$\mathbf{PALIGAMAt} = C_3 + a_{3i} \sum \mathbf{BAMAt-k} + a_{3i} \sum \mathbf{MAJAMIROTEt-k} + a_{3i} \sum \mathbf{PALIGAMAt-k} + a_{3i} \sum \mathbf{SANDt-k} + a_{3i} \sum \mathbf{KESt-k} + a_{3i} \sum \mathbf{PENDIREKORt-k} + a_{3i} \sum \mathbf{TRASKOJAt-k} + a_{3i} \sum \mathbf{INFt-k} + \epsilon_i$$

$$\mathbf{SANDt} = C_4 + a_{4i} \sum \mathbf{BAMAt-k} + a_{4i} \sum \mathbf{MAJAMIROTEt-k} + a_{4i} \sum \mathbf{PALIGAMAt-k} + a_{4i} \sum \mathbf{SANDt-k} + a_{4i} \sum \mathbf{KESt-k} + a_{4i} \sum \mathbf{PENDIREKORt-k} + a_{4i} \sum \mathbf{TRASKOJAt-k} + a_{4i} \sum \mathbf{INFt-k} + \epsilon_i$$

$$\mathbf{KESt} = C_5 + a_{5i} \sum \mathbf{BAMAt-k} + a_{5i} \sum \mathbf{MAJAMIROTEt-k} + a_{5i} \sum \mathbf{PALIGAMAt-k} + a_{5i} \sum \mathbf{SANDt-k} + a_{5i} \sum \mathbf{KESt-k} + a_{5i} \sum \mathbf{PENDIREKORt-k} + a_{5i} \sum \mathbf{TRASKOJAt-k} + a_{5i} \sum \mathbf{INFt-k} + \epsilon_i$$

$$\mathbf{PENDIREKORt} = C_6 + a_{6i} \sum \mathbf{BAMAt-k} + a_{6i} \sum \mathbf{MAJAMIROTEt-k} + a_{6i} \sum \mathbf{PALIGAMAt-k} + a_{6i} \sum \mathbf{SANDt-k} + a_{6i} \sum \mathbf{KESt-k} + a_{6i} \sum \mathbf{PENDIREKORt-k} + a_{6i} \sum \mathbf{TRASKOJAt-k} + a_{6i} \sum \mathbf{INFt-k} + \epsilon_i$$



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$$\text{TRASKOJA}_t = C_7 + a_{7i} \sum \text{BAMA}_{t-k} + a_{7i} \sum \text{MAJAMIROTE}_{t-k} + a_{7i} \sum \text{PALIGAMA}_{t-k} + a_{7i} \sum \text{SAND}_{t-k} + a_{7i} \sum \text{KES}_{t-k} + a_{7i} \sum \text{PENDIREKOR}_{t-k} + a_{7i} \sum \text{TRASKOJA}_{t-k} + a_{7i} \sum \text{INF}_{t-k} + \varepsilon_i$$

Derives:

BAMA	=	grocery group
MAJAMIROTE	=	processed food group, beverage, cigarette and tobacco
PALIGAMA	=	housing group, water, electricity, gas and fuel
SAND	=	sandang group
KES	=	health group
PENDIREKOR	=	education, recreation and sports group
TRASKOJA	=	group transportation, communication and financial services
$\varepsilon_i$	=	stochastic error term or impulse or innovation or shock in VAR
k	=	optimal inaction
t	=	time

### *Impulse Response Function (IRF)*

Response to innovation is one of the accessories in VAR used to look at the response of endogenous variables to the influence of shock innovation) other endogenous variables (Pindycks and Rubinfeld; 1998) in Ichsandimas & Cahyadin (2014). Innovation is interpreted as "policy shock", in Bernanke and Blinder (1992) in Ichsandimas & Cahyadin (2014). or also often called action. Statically the response to the action is formulated in the Sims equation (1980) in Ichsandimas & Cahyadin (2014)..

### *Variance Decomposition (VD)*

Variance decomposition is another method of looking at system dynamics. In the impulse response function is used to determine the effect of shock of an endogenous variable against the variables in var. While in variance decomposition describes (decompose) variations of an endogenous variable into the shock component of endogenous variables in VAR. Variance decomposition provides information on the relative importance of each random innovation of variables in VAR.

## 4. RESULTS AND DISCUSSIONS

### **Overview of Inflation in Banten Province**

The contributing factor to Banten's high economic performance in 2018, in terms of demand, is the strength of various components of domestic demand. In this case, it means increased household consumption and the uptake of government spending, as well as rising private investment. In addition, the foreign and national demand component also increased. What's more, overseas imports at the same time are increasing, but with a smaller amount of rising imports. Consequently, the trade balance increased so that Banten's economy enjoyed accelerated or accelerated growth.

The calculation of inflation nationally is the result of a compilation of inflation calculations throughout the region that have been weighted. The development of goods and services prices (inflation/deflation) as measured by changes in the Consumer Price Index (CPI) shows that in Banten Province during 2018 there was a lower inflation of 3.42% (yoy) percent when compared to 3.98% (yoy) in 2017. Commodity groups that contribute to Banten inflation in a row as follows: grocery group of 0.516 percent, transport, communications and financial services groups by 0.545 percent, processed food, beverage, cigarette and tobacco groups by 0.552 percent, health groups by 0.365 percent, food and beverage groups by 0.190 percent, housing, water, electricity, gas and fuel groups by 0.849 percent while education, recreation and sports groups by 0.397 percent.

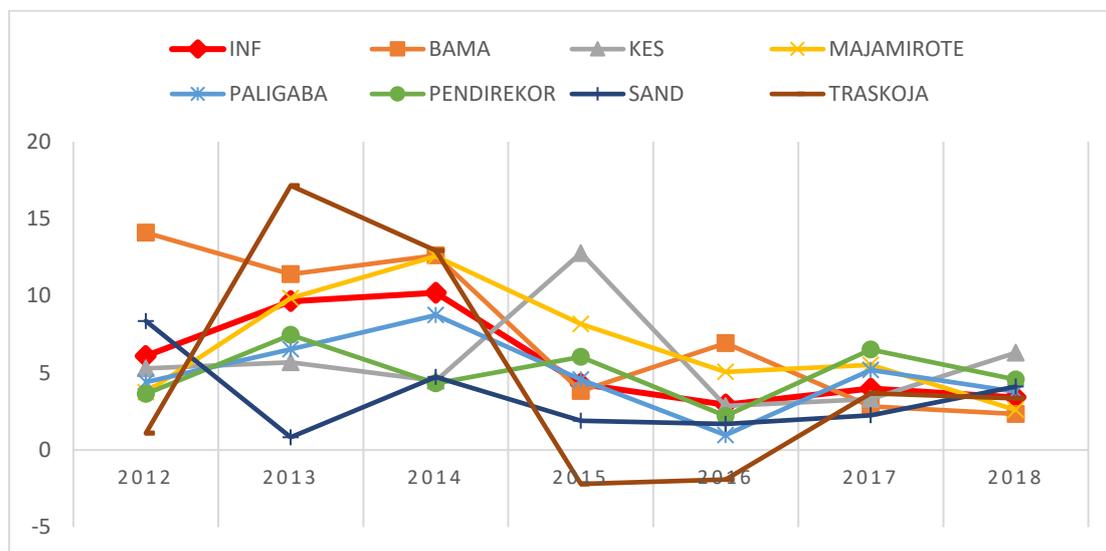
During 2017 there was higher inflation of 3.98 percent compared to 2016, which was recorded at 2.94 percent. The condition is due to the increase in electricity tariff of 900 volt ampere (VA) at the beginning of the year, but when looking at inflation in the subgroup of food in 2017 which is only 0.2891, it is seen that the efforts that have been done by the local government, through the Regional



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Inflation Control Team (TPID), have been running optimally to maintain the stability of the price of goods and services that have been consumed by Banten people. This was also the case in 2016 when inflation was 2.94 percent.

In 2015 there was lower inflation of 4.29 percent when compared to 10.20 percent in 2014. Inflation in December was the highest in 2015. Rising prices of onions, red chillies, eggs and rising prices of chicken meat are very significant commodities against the rise in inflation in December 2015. The condition shows that the efforts that have been carried out by the local government are still processing towards maximum results to maintain the stability of the price of goods and services that have been consumed by the people of Banten. The largest increase in CPI occurred in the health group of 12.78 percent; processed food, beverage, cigarette and tobacco groups 8.18 percent; education, recreation and sports groups 6.05 percent; housing, water, electricity, gas and fuel groups 4.56 percent; food group 3.82 percent; followed later by a 1.90 percent backing group; as well as the last transport, communications and financial services group - 2.20 percent.



Source: Central Bureau of Statistics, 2020.

**Figure 1: Inflation Growth of Banten Province**

Inflation remained high at 10.20 percent in 2014 compared to 9.65 percent in 2013. Inflation in December was the highest in 2014. The increase in the price of subsidized fuel oil (BBM) and the surge in the price of chili is a very significant commodity against the increase in inflation in December 2014. These conditions show that the efforts that have been done by the local government still do not provide maximum results to maintain the stability of the price of goods and services that have been consumed by the people of Banten. The largest CPI increase occurred in the transport, communications and financial services group of 12.93 percent; followed by the grocery group 12.63 percent; processed food, beverage, cigarette and tobacco groups 12.57 percent; housing, water, electricity, gas and fuel groups 8.75 percent; 4.73 percent; health group 4.49 percent; and last education, recreation and sports groups 4.33 percent.

During 2012 there was a high inflation rate of 6.10 percent compared to 2011, which was only recorded at 2.78 percent. These conditions show that the efforts that have been done by the local government still do not provide maximum results to maintain the stability of the price of goods and services that have been consumed by the people of Banten. The largest CPI increase occurred in the 14.10 percent grocery group; then the backing group was 8.37 percent; health group 5.30 percent; housing, water, electricity, gas and fuel groups 4.41 percent; processed food groups, beverages, cigarettes and tembakau 3.76 percent; education, recreation and sports groups were 3.64 percent and transport, communication and financial services groups 1.10 percent. Over the past few years, the TRASKOJA group reached the highest inflation rate in 2013 at 17.15 percent, and the lowest level



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compared to other commodity/service groups reached negative figures in 2015 of -2.2 percent and 2014 of -1.92 percent.

### Analysis Results

The results of the data analysis in this study are divided into several sections: the results of descriptive statistical analysis, statistical test results before estimation which include data stationary test and optimal lag length, and var model estimation within the framework of Impulse Response Function (IRF) and Variance Decomposition (VD) testing.

### Descriptive Statistical Test Results

The descriptive statistical test results in the following table show that the average inflation rate in MAJAMIROTE group shows the highest average inflation compared to other commodity/service groups, which is 0.60 during the research period. Then the highest average inflation rate after MAJAMIROTE group successively followed by BAMA group and PENDIREKOR group with average inflation value of 0.59 and 0.48. The average lowest inflation rate during the TRASKOJA group's research period was 0.27. Although MAJAMIROTE group has the highest average, the highest point (maximum) inflation is precisely in TRASKOJA group. That is, within a certain time or month, inflation in Banten has reached the highest point in TRASKOJA group. Another interesting thing is that deflation also occurs in all groups indicated by the minimum point (lowest) during the research period.

Inflation Forming Group	Mean	Median	Max.	Min.	Standard Deviation
<b>BAMA</b>	0,597756	0,455000	8,860000	-3,230000	1,629056
<b>Who</b>	0,472769	0,290000	5,780000	-0,280000	0,675886
<b>MAJAMIROTE</b>	0,605088	0,455000	3,250066	-0,020000	0,508157
<b>PALIGABA</b>	0,401106	0,270000	3,390674	-0,760000	0,486673
<b>PENDIREKOR</b>	0,486025	0,150000	5,470000	-0,150000	0,949055
<b>SAND</b>	0,371491	0,260000	4,880000	-2,040000	0,739099
<b>TRASKOJA</b>	0,279704	0,080182	10,52000	-4,830000	1,693408

Source: Data processing results, 2020.

### Stationary Test Results

Based on the results of the unit root test (unit root test) using the ADF test method obtained that all stationary variables at the level with a level of significance of 5%. The results of the stationary test showed that the data was stationary qualified. Because all variables are stationary at the level level, according to Azwar (2016) then the co-integration test does not need to be done. Previously specified models with VAR models can be further estimated.

Variable	Level			Test Results
	Critical Values	t-statistic	Prob*	
<b>BAMA</b>	-3,445030	-8,988511	0,0000	Stationary
<b>Who</b>	-3,444487	-11,40511	0,0000	Stationary



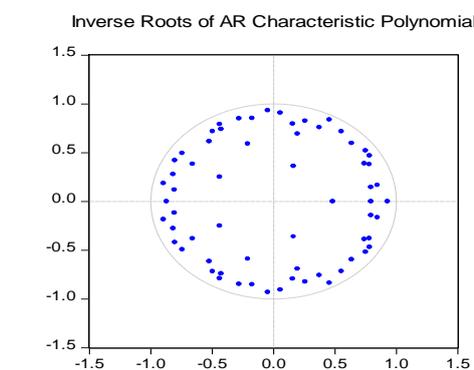
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<b>MAJAMIROTE</b>	-3,444487	-9,336484	0,0000	Stationary
<b>PALIGABA</b>	-3,444756	-6,288863	0,0000	Stationary
<b>PENDIREKOR</b>	-3,444487	-10,49596	0,0000	Stationary
<b>SAND</b>	-3,444487	-10,24407	0,0000	Stationary
<b>TRASKOJA</b>	-3,444487	-10,28900	0,0000	Stationary

Source: Data processing results, 2020; \*) significantly at  $\alpha = 5\%$ .

### VAR Stability Test Results

Based on the var model stability test results, it shows that the VAR model used in this study is stable up to lag 8. This is indicated by a modulus value of less than one. In addition, the stability of the VAR model can also be seen in the absence of points coming out of the circle as shown in the following image.



Source: Data processing results, 2020.

**Figure 2: VAR Model Stability**

### Optimum Lag Length Test Results

The lag determination in this study used the Approach of Likelihood Ratio (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC) and Hannan Quinn (HQ). The results of determining the full lag length can be seen in the table below. Based on the following table according to the criteria of LR, FPE, AIC, SC and HQ whose smallest and most designated values are lag 0 as indicated by the sign (\*). However, in the next process to estimate the VAR equation model with IRF and VD devices will be used lag 2 because the VAR model at lag 0 cannot be estimated. Additionally, lag 2 shows the second most asterisk.

**Table 3: Optimum Lag Test Results**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1022.369	In	0.038296*	16.60273*	16.76194*	16.66741*
1	-985.6972	68.61238	0.046779	16.80157	18.07524	17.31896
2	-945.3067	71.00909*	0.054130	16.94043	19.32857	17.91055
3	-905.9633	64.72620	0.064416	17.09618	20.59879	18.51902
4	-873.7518	49.35627	0.087472	17.36697	21.98404	19.24253
5	-831.0818	60.56390	0.102721	17.46906	23.20060	19.79735
6	-786.0023	58.89417	0.119688	17.53230	24.37830	20.31330
7	-740.2290	54.63266	0.143556	17.58434	25.54481	20.81807
8	-704.8852	38.19418	0.214511	17.80460	26.87954	21.49105

Source: Data processing results, 2020.

## Impulse Response Function (IRF) dan Variance Decomposition (VD)

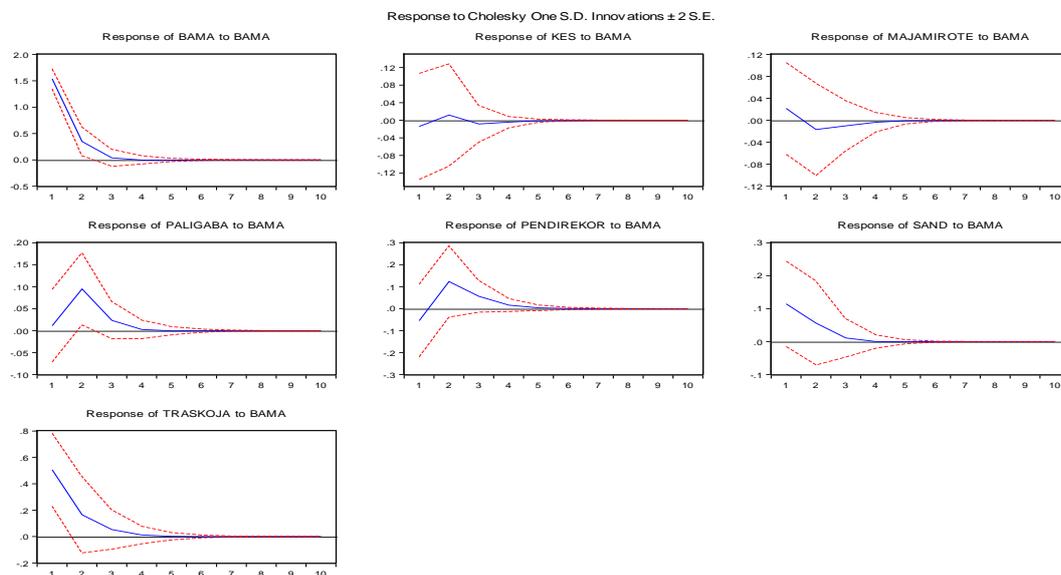
### IRF Grocery Group (BAMA)

The IRF's results illustrate that in the first month ahead, if there is a positive shock of one standard deviation (1 S.D.) at the BAMA group price it will result in an increase in the price of the BAMA group itself by 1.54%. However, the impact began to decline from the 2nd month until it returned to its original price balance in the 3rd month. So, in the event of a shock coming from the BAMA group itself for example due to the influence of weather, season, or crop failure resulting in BAMA supply being choked then there will be an increase in prices that adjustment to the original price quite quickly that is about 3 months.

**Table 4: BAMA Group IRF**

Period	BAMA	Who	MAJAMIROT E	PALIGABA	PENDIREKO R	SAND	TRASKOJA
1	1.536585	-0.014134	0.021498	0.011185	-0.054440	0.114326	0.506579
2	0.347931	0.012002	-0.016735	0.094817	0.123478	0.055920	0.164936
3	0.037898	-0.008274	-0.010131	0.023498	0.056028	0.011197	0.052816
4	-0.003006	-0.004314	-0.003591	0.002651	0.016050	0.000297	0.011683
5	-0.003058	-0.001141	-0.000976	-0.000387	0.003297	-0.000510	0.002043
6	-0.001143	-0.000223	-0.000245	-0.000326	0.000479	-0.000209	6.69E-05
7	-0.000362	-2.81E-05	-5.67E-05	-0.000128	8.79E-06	-5.89E-05	-0.000138
8	-0.000109	1.48E-06	-1.12E-05	-4.19E-05	-3.06E-05	-1.44E-05	-8.05E-05
9	-3.09E-05	2.79E-06	-1.46E-06	-1.25E-05	-1.70E-05	-3.20E-06	-3.24E-05
10	-8.05E-06	1.37E-06	1.50E-07	-3.45E-06	-6.83E-06	-6.21E-07	-1.10E-05

Source: Data processing results, 2020.



Source: Data processing results, 2020.

**Figure 3: of BAMA group IRF**

The shock of the KES group led to a -0.01% drop-in BAMA group prices in the 1st month, which led to an increase in BAMA group prices. In the event of a positive shock of 1 S.D. in MAJAMIROTE group, the price increase of BAMA group in the first month of 0.02% then there was a continuous decrease in prices until the 9th month, and the price again rose in the 10th month. The shock impact in the 1st month of the PALIGABA group is not very large about 0.01%, in this group including the fuel sub-group. The impact of the fuel increase was more responded to by the increase in prices in the BAMA group of TRASKOJA group which included a sub-group of transportation that supported the distribution process, which resulted in an increase in BAMA group prices in the 1st month by 0.51%.

But entering the 7th and 5th months the impact of the TRASKOJA and SAND groups began to decrease. These results confirm the descriptive analysis in the previous section, in which the price movement of the grocery commodity group was also affected by the shock that occurred in the price of the transport group, related to the increase in fuel prices. PENDIREKOR group also turned out to have an impact on BAMA group by causing price drop in the first month, then from the 2nd to 7th month there was an increase in BAMA group prices. IRF results show that existing shocks (BAMA, PALIGABA, and TRASKOJA) largely began to decline back below the balance price in the 4th-7th month. It can be said that the persistence of price increases in the BAMA group on average lasts 1 to 10 months ahead

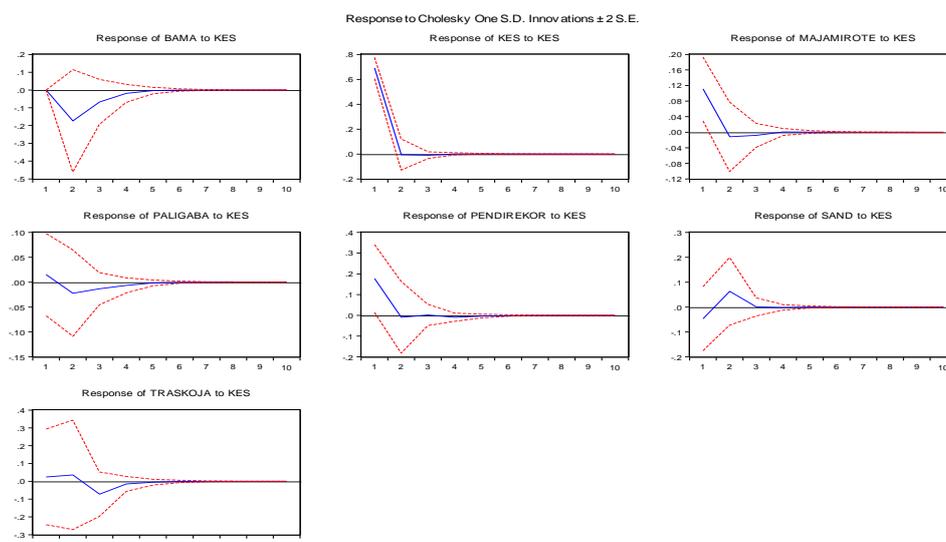
### IRF Health Group (KES)

Shock of variable price group KES itself which occurred the highest price increase compared to other groups in the first month, which is 0.69%. PALIGABA group prices also gave shock to the price drop from the 2nd month to the 7th month, after which there was a fairly small price increase below 1%. The provision of health services and the production of medical goods cannot be separated from inputs in PALIGABA groups such as fuel, lighting, and water sub-groups. On average, there was a drop in prices due to the shock of all inflation-forming groups that occurred from the 2nd month to the 10th month, except the KES group itself and MAJAMIROTE which occurred only in the 2nd and 3rd month.

**Table 5: IRF Group KES**

Period	BAMA	Who	MAJAMIROT		PENDIREKO		SAND	TRASKOJA
			E	PALIGABA	R			
1	0.000000	0.690828	0.111319	0.014999	0.177220	-0.047267	0.024640	
2	-0.173542	-0.004789	-0.011676	-0.022298	-0.009181	0.062930	0.035607	
3	-0.066929	-0.010088	-0.007985	-0.013372	0.001591	0.000480	-0.072543	
4	-0.019279	0.001072	0.000572	-0.006625	-0.009360	-0.001810	-0.015374	
5	-0.003445	0.000663	0.000442	-0.001666	-0.003854	-0.000323	-0.005073	
6	-0.000401	0.000286	0.000197	-0.000309	-0.001205	-5.50E-06	-0.001377	
7	2.60E-05	8.77E-05	6.87E-05	-3.27E-05	-0.000317	2.29E-05	-0.000317	
8	4.09E-05	2.22E-05	2.10E-05	5.80E-06	-7.15E-05	1.12E-05	-5.81E-05	
9	1.98E-05	4.80E-06	5.87E-06	5.44E-06	-1.30E-05	3.90E-06	-5.04E-06	
10	7.52E-06	7.99E-07	1.48E-06	2.46E-06	-1.25E-06	1.19E-06	2.11E-06	

Source: Data processing results, 2020.



Source: Data processing results, 2020.

**Figure 4: IRF group KES**



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### IRF Group MWill Be So, Beverages, Cigarettes and Tobacco (MAJAMIROTE)

The IRF results in MAJAMIROTE group show that if there is a positive shock from BAMA and KES group, it will not have any impact on MAJAMIROTE inflation in the first month. The largest price increase occurred when there was shock in MAJAMIROTE group itself by 0.46% and TRASKOJA group by 0.11% and there were fluctuations in price increase throughout the period. The shock effect of the BAMA group until the 8th month caused fluctuations in price increases in majamirote group and then in the 9th and 10th months experienced a decrease in prices.

The price shock that occurred in PALIGABA group continues to show fluctuations in MAJAMIROTE group price increase until the 9th month with a downward trend. While shock from PALIGABA and TRASKOJA group by 1 S.D. in the first month led to an increase in prices in MAJAMIROTE group by 0.06% and 0.11%. Both groups are widely entered as inputs on MAJAMIROTE group production in addition to raw materials that come from BAMA group. PALIGABA group which is widely filled by sub-groups of energy and fuel needs, influenced the increase in MAJAMIROTE group until the 4th month, and after that gave the impact of the decrease until the end of the year by - 0.0000071%.

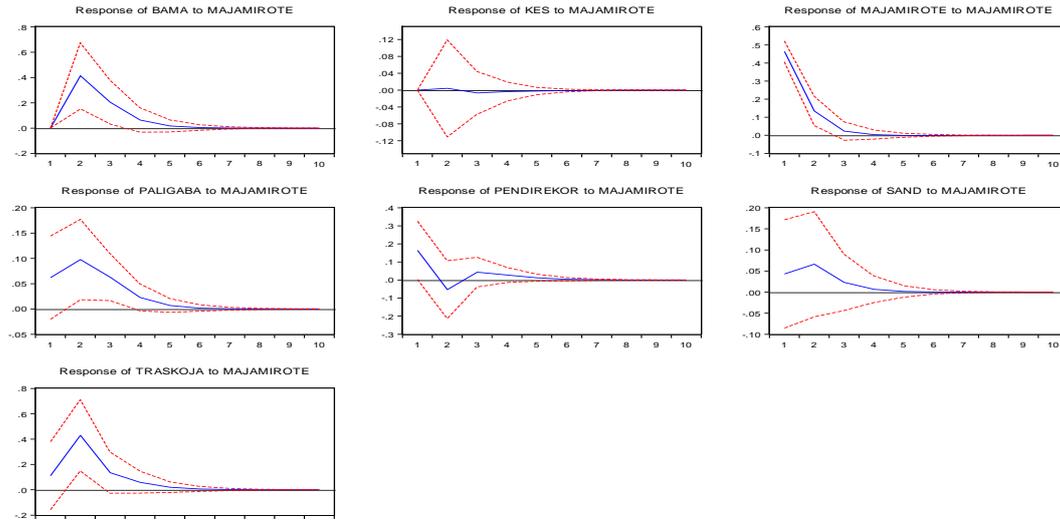
**Table 6: MAJAMIROTE Group IRF**

Period	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.000000	0.000000	0.464070	0.061744	0.164601	0.043006	0.110917
2	0.413037	0.004112	0.134324	0.097540	-0.052935	0.066039	0.429938
3	0.203681	-0.006626	0.023296	0.062691	0.043641	0.022888	0.134171
4	0.063207	-0.003450	0.003808	0.022690	0.027542	0.006585	0.059281
5	0.016580	-0.002273	-0.000128	0.006810	0.012317	0.001558	0.020279
6	0.003691	-0.000953	-0.000365	0.001733	0.004399	0.000238	0.006238
7	0.000653	-0.000328	-0.000187	0.000371	0.001365	-9.99E-07	0.001729
8	5.46E-05	-9.93E-05	-7.20E-05	5.92E-05	0.000379	-1.94E-05	0.000425
9	-2.41E-05	-2.69E-05	-2.39E-05	1.65E-06	9.38E-05	-1.03E-05	8.79E-05
10	-1.78E-05	-6.43E-06	-7.10E-06	-4.02E-06	1.98E-05	-3.98E-06	1.26E-05

Source: Data processing results, 2020.

This result is also in accordance with the previous analysis, in which the price movements of the processed food group, beverages, cigarettes, and tobacco, in addition to not detaching from the price of groceries as part of the input, were also affected by the shock that occurred in the transportation, communication and financial services groups. Interesting findings from this result, sand group price shock gives a persistent influence where until the 6th month gives the effect of increasing prices on MAJAMIROTE group. In addition, the shock that occurred in the BAMA, PALIGABA, SAND and TRASKOJA groups tended to result in a more persistent increase in MAJAMIROTE prices, compared to the shock impact of the other groups, which began to fall in the 9th and 10th months.

Response to Cholesky One S.D. Innovations  $\pm$  2 S.E.



Source: Data processing results, 2020.

**Figure 5: of MAJAMIROTE group IRF**

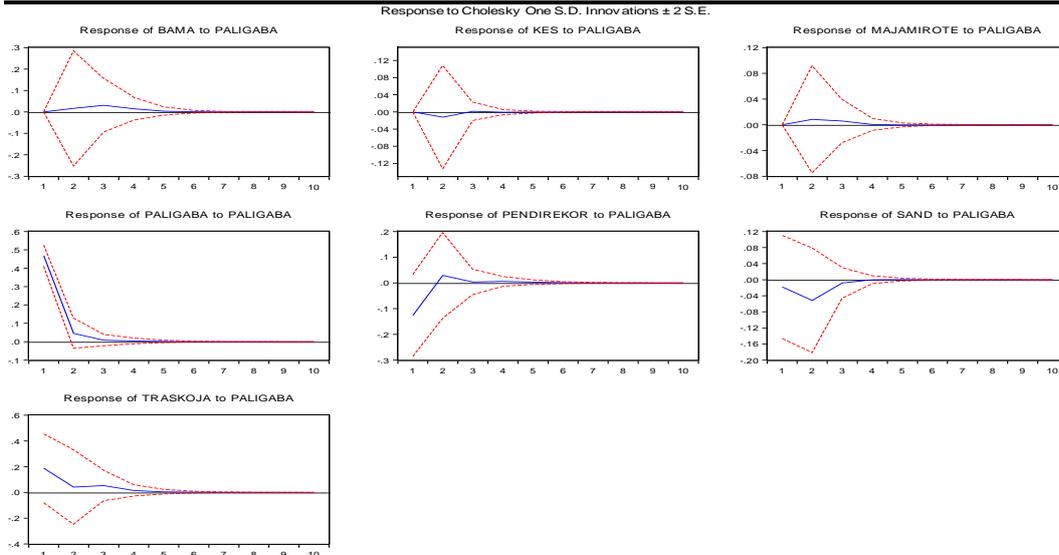
### IRF Housing, Water, Electricity, Gas, and Fuel Group (PALIGABA)

IRF results in PALIGABA group price in case of shock of 1 S.D. on each variable, in the 1st month ahead PALIGABA group price itself and TRASKOJA which caused the highest price increase compared to other groups, namely 0.47% and 0.19%. However, the shock in TRASKOJA group decreased in the 10th month. While in the PALIGABA group itself persisted with a fairly high shock up to the 8th month of 0.47% to 0.0000024%.

**Table 7: IRF PALIGABA Group**

Period	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.000000	0.000000	0.000000	0.468228	-0.125971	-0.018167	0.187334
2	0.016480	-0.012087	0.008389	0.045778	0.028919	-0.051436	0.041230
3	0.031069	0.001463	0.005826	0.008049	0.003631	-0.008111	0.052695
4	0.014490	-0.000652	0.000328	0.004109	0.005674	-0.000154	0.014868
5	0.003759	-0.000420	-0.000215	0.001378	0.002796	0.000169	0.004635
6	0.000678	-0.000208	-0.000143	0.000336	0.001011	3.04E-05	0.001306
7	5.74E-05	-7.40E-05	-5.74E-05	5.67E-05	0.000299	-8.51E-06	0.000325
8	-2.01E-05	-2.12E-05	-1.89E-05	2.40E-06	7.47E-05	-7.49E-06	6.80E-05
9	-1.46E-05	-5.14E-06	-5.56E-06	-3.17E-06	1.56E-05	-3.18E-06	9.80E-06
10	-6.20E-06	-1.01E-06	-1.47E-06	-1.87E-06	2.32E-06	-1.06E-06	-3.66E-07

Source: Data Processing Results, 2020



Source: Data processing results, 2020.

**Figure 6: of the PALIGABA Group IRF**

PALIGABA group prices themselves also gave a shock price drop on itself in the 9th and 10th months. This is related to the nature of this commodity group whose pricing is heavily influenced by administered prices, especially in sub-groups of fuel, lighting, and water. In addition, in the subgroup of housing costs will also take place persistently, especially the nature of either land or houses that are widely used as a means of investment. The impact of the persistence of PALIGABA group price increase also occurred due to the shock of BAMA, PENDIREKOR and TRASKOJA MAJADI group, which showed the impact on PALIGABA price movement closer to the balance price.

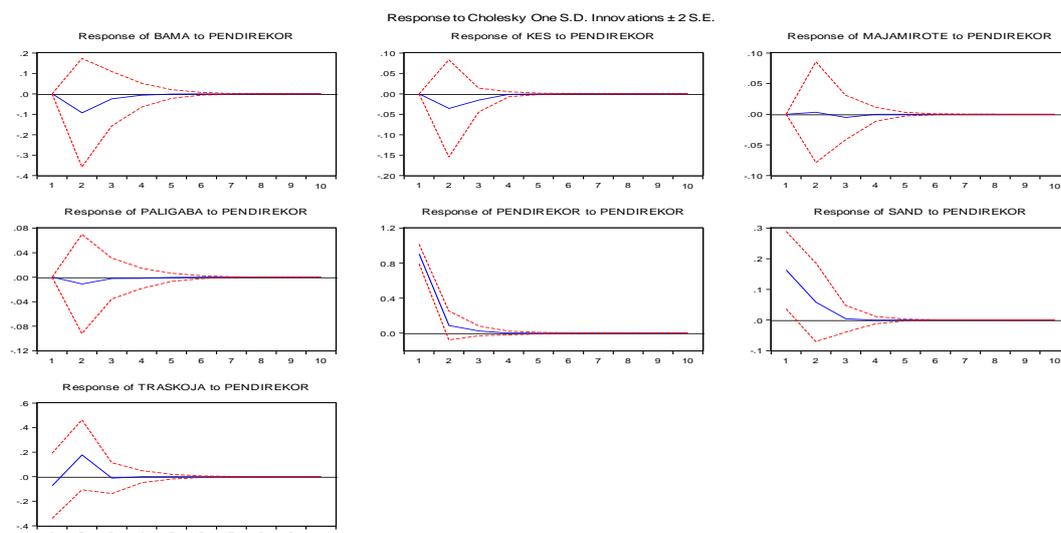
### IRF Education, Recreation and Sports Group (PENDIREKOR)

The positive shock of 1 S.D. in the first month of each variable which led to the highest price increase in the PENDIREKOR group price was the PENDIREKOR group itself by 0.91%, the range below 1% continued until the 4th month after which there was a decrease in the price until the end of the period. The biggest increase also came from a shock in sand group prices as in the first month of 0.16%. TRASKOJA group prices led to price declines for most of the period except the 2nd and 4th months. This is of course related to the cost of operational needs in this PENDIREKOR group towards sub-groups of fuel, lighting, and water. In addition, sand group prices resulted in price increases except in the 4th and 5th months, where the needs of education and sports were not separated from the needs in the group, especially that supported the needs related to the implementation of education such as school uniforms in line with the pattern of starting the educational schedule that began at the beginning of the year.

**Table 8: IRF PENDIREKOR Group**

Period	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.000000	0.000000	0.000000	0.000000	0.905263	0.162976	-0.073582
2	-0.092866	-0.035523	0.003388	-0.011091	0.086606	0.057791	0.177737
3	-0.024210	-0.015132	-0.005238	-0.002270	0.025579	0.003982	-0.012036
4	-0.006719	-0.001184	-8.08E-05	-0.002003	0.001205	-0.000645	0.000131
5	-0.001008	-0.000102	2.65E-05	-0.000489	-0.000320	-0.000154	-0.000439
6	-0.000109	2.52E-05	1.90E-05	-8.74E-05	-0.000160	-1.88E-05	-0.000185
7	-5.70E-06	1.26E-05	7.19E-06	-1.20E-05	-4.73E-05	1.56E-06	-5.17E-05
8	1.72E-06	3.42E-06	2.27E-06	-9.12E-07	-1.15E-05	1.41E-06	-1.26E-05
9	1.18E-06	8.05E-07	7.07E-07	2.00E-07	-2.57E-06	4.72E-07	-2.46E-06
10	5.74E-07	1.72E-07	2.07E-07	1.64E-07	-5.05E-07	1.38E-07	-2.97E-07

Source: Data Processing Results, 2020



Source: Data processing results, 2020.

**Figure 7: of the IRF PENDIREKOR Group**

### IRF Sandang Group (SAND)

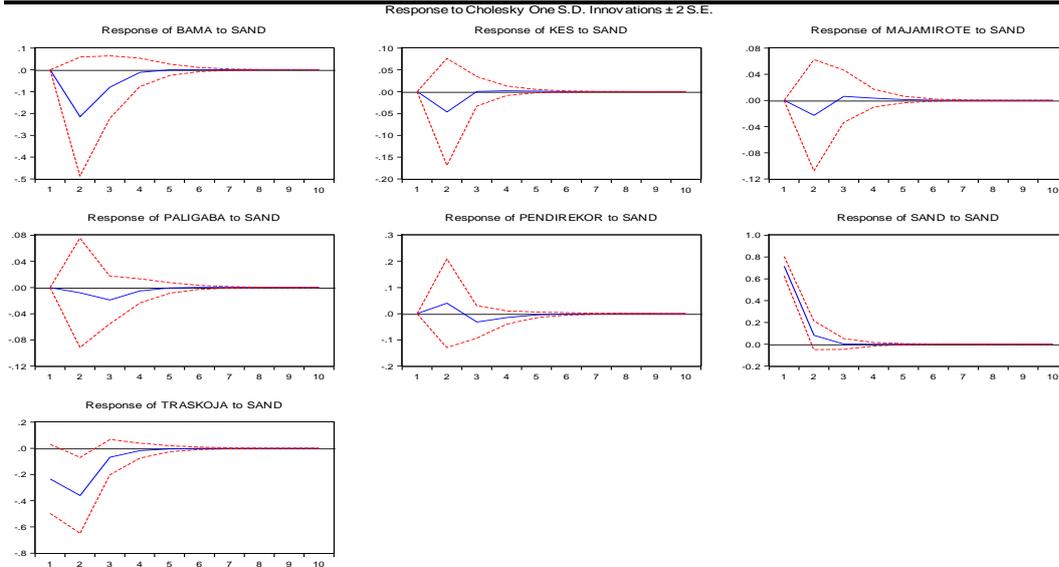
In the event of a positive shock of 1 S.D. in each commodity group price, in the first month ahead, the price of BAMA, KES, MAJAMIROTE, PALIGABA and PENDIREKOR group does not have any impact. The highest price increase in the first month occurred when there was a shock from the SAND group itself by 0.72%. There was a drop in prices in the 2nd to 7th month when there was shock from BAMA group, KES, MAJAMIROTE, PALIGABA, PENDIREKOR, SAND and TRASKOJA. The shock in BAMA, KES, MAJAMIROTE and SAND groups itself also led to an increase in the price of sand group almost in each period with a fairly small proportion of under 1%.

The most common price drop occurs when there is shock in PALIGABA, PENDIREKOR and TRASKOJA groups with an average duration of 4-6 months. This indicates that the shock that occurred in other commodity groups turned out to also have an impact on sand group prices. Various shocks from commodity group prices to sand group prices have led to persistent increases in prices in this group over the next 10 months, except in the PENDIREKOR and TRASKOJA groups.

**Table 10: IRF Group SAND**

Period	BAMA	Who	MAJAMIROT E	PALIGABA	PENDIREKO R	SAND	TRASKOJA
1	0.000000	0.000000	0.000000	0.000000	0.000000	0.715761	-0.234224
2	-0.214539	-0.046577	-0.022896	-0.008058	0.039814	0.080814	-0.360186
3	-0.079059	0.000576	0.006282	-0.019056	-0.031622	0.002065	-0.067528
4	-0.012002	0.001972	0.003313	-0.005258	-0.015136	-0.000415	-0.018283
5	0.000267	0.001071	0.001228	-0.000647	-0.004644	0.000152	-0.003975
6	0.000923	0.000325	0.000366	0.000131	-0.001049	0.000162	-0.000577
7	0.000419	6.93E-05	9.45E-05	0.000116	-0.000157	6.80E-05	2.62E-05
8	0.000144	8.90E-06	2.16E-05	4.89E-05	1.87E-06	2.10E-05	6.55E-05
9	4.38E-05	-9.20E-07	4.02E-06	1.65E-05	1.36E-05	5.45E-06	3.39E-05
10	1.21E-05	-1.20E-06	4.20E-07	4.93E-06	7.18E-06	1.23E-06	1.31E-05

Source: Data Processing Results, 2020



Source: Data processing results, 2020.

**Figure 8: of the SAND Group IRF**

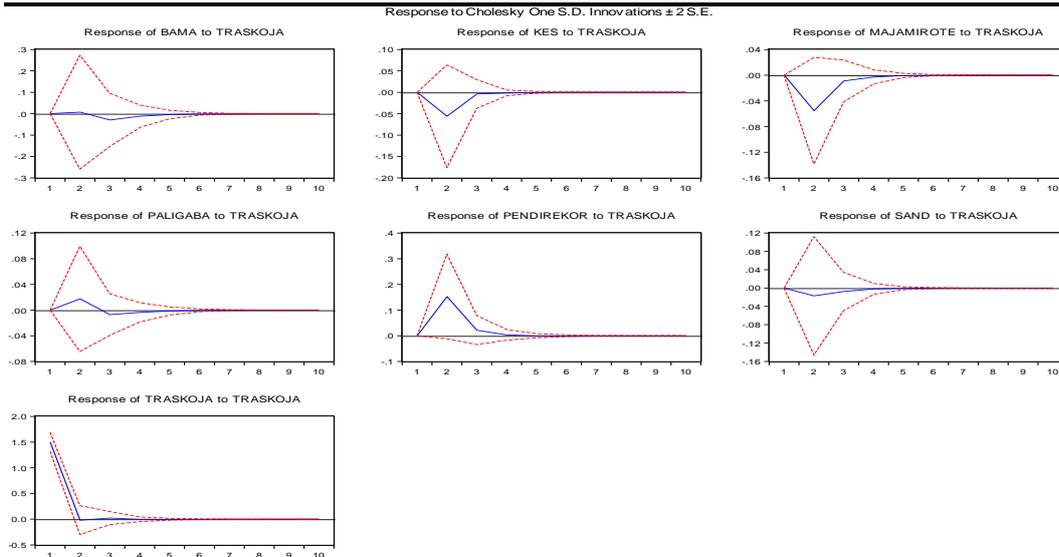
### IRF Group of Transportation, Communication and Financial Services (TRASKOJA)

In the event of a positive shock of 1 S.D. in the first month ahead of each variable which causes the highest price increase in the price of the TRANS group is the TRANS group itself by 1.50%, then PENDIREKOR in the 2nd month by 0.15%. The shock of the PALIGABA group almost always leads to a decrease in prices throughout the period except in the 2nd month there is a price increase of 0.02%. similar conditions are also found in the BAMA and SAND groups. The price influence of PALIGABA group especially from the fuel sub-group is relatively small on TRASKOJA group price, which provides shock with a range of less than 1%. In addition, it was also found that the BAMA, PALIGABA, PENDIREKOR, SAND and TRASKOJA groups themselves almost always showed a decreased price response throughout the period.

**Table 11: IRF TRASKOJA Group**

Period	BAMA	Who	MAJAMIROT E	PALIGABA	PENDIREKO R	SAND	TRASKOJA
1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.502434
2	0.006973	-0.056109	-0.055313	0.017454	0.152578	-0.017012	-0.019670
3	-0.029267	-0.004059	-0.009056	-0.007080	0.021521	-0.007488	0.020048
4	-0.012250	-0.001648	-0.002842	-0.003690	0.003275	-0.001914	-0.002537
5	-0.004406	-0.000162	-0.000639	-0.001503	-0.000345	-0.000599	-0.002489
6	-0.001365	5.11E-05	-0.000111	-0.000512	-0.000491	-0.000158	-0.001140
7	-0.000375	4.17E-05	-8.45E-06	-0.000153	-0.000240	-3.60E-05	-0.000425
8	-9.17E-05	1.89E-05	4.78E-06	-4.07E-05	-9.06E-05	-6.46E-06	-0.000138
9	-1.89E-05	6.85E-06	3.33E-06	-9.54E-06	-2.96E-05	-5.23E-07	-3.99E-05
10	-2.69E-06	2.18E-06	1.43E-06	-1.82E-06	-8.67E-06	2.52E-07	-1.04E-05

Source: Data Processing Results, 2020



Source: Data processing results, 2020.

**Figure 9: of TRASKOJA Group IRF**

### VD Grocery Group (BAMA)

Based on the table below can be seen the contribution of each endogenous variable shock to the price fluctuations of the BAMA group. Data in the first month showed the increase in BAMA group prices was more due to the price of the BAMA group itself (100%). So many factors causing the increase in prices in the BAMA group are of its own, this confirms that factors of structural and geographical nature such as seasons, weather, to crop failures in sub-subgroups within which consist largely of production in primary sectors such as agriculture are very dominant affecting price fluctuations. Entering the 5th month until the end of the shock contribution period remains at 88.73%.

**Table 12: VD BAMA Group**

Variance Decomposition of BAMA:

Period	S.E.	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	1.536585	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
2	1.654641	90.66096	1.100028	6.231183	0.009920	0.314994	1.681139	0.001776
3	1.671495	88.89323	1.238288	7.591038	0.044271	0.329652	1.871120	0.032399
4	1.672968	88.73713	1.249389	7.720423	0.051695	0.330685	1.872974	0.037703
5	1.673067	88.72698	1.249666	7.729331	0.052194	0.330682	1.872756	0.038392
6	1.673072	88.72645	1.249663	7.729768	0.052210	0.330680	1.872774	0.038458
7	1.673072	88.72642	1.249663	7.729780	0.052210	0.330680	1.872779	0.038463
8	1.673072	88.72642	1.249663	7.729780	0.052210	0.330680	1.872780	0.038463
9	1.673072	88.72642	1.249663	7.729780	0.052210	0.330680	1.872780	0.038463
10	1.673072	88.72642	1.249663	7.729780	0.052210	0.330680	1.872780	0.038463

Source: Data Processing Results, 2020

The price fluctuations of this BAMA group in addition to being influenced by itself are also influenced by MAJAMIROTE group price with a contribution of 6-7%. Meanwhile, kes and SAND groups contributed shock above 1%. TRASKOJA Group also contributed a shock of 0.039 from the 3rd month to the end of the period, in which the group has an entry role in the cost structure in order to distribute supplies both from farmers producers directly then to collector traders to retail traders.

The composition of this shock contribution is still the same until the end of the period in which BAMA group amounted to 88.73%, MAJAMIROTE group by 7,735, KES group by 1.25%, SAND group by 1.87%, and another group less than 1%. The largest price fluctuation shock contribution is



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spread across three groups namely BAMA group itself, MAJAMIROTE and SAND. The PALIGABA group is included in the second smallest contribution of one of which comes from the fuel sub-group, which is also part of the input cost in transportation for BAMA group distribution.

### VD Group Health (KES)

Based on fedv results in the first month ahead the largest contribution to price changes in the KES group is its own variable of 99.96%. The other groups that contributed the biggest shock fluctuations after the KES group were TRASKOJA group by 0.65% and SAND group by 0.45%. This condition lasts throughout the period, where in the 7th to 10th month the size of the shock contribution tends to remain. Other groups other than the KES group themselves contribute shock relatively small price fluctuations of less than 1%.

**Table 13: VD Kelompok KES**

Period	S.E.	BAMA	Who	Variance Decomposition of KES:				
				MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.690973	0.041843	99.95816	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.695955	0.070987	98.53693	0.003490	0.030164	0.260532	0.447903	0.649992
3	0.696287	0.085040	98.46401	0.012542	0.030577	0.307516	0.447544	0.652770
4	0.696315	0.088872	98.45610	0.014996	0.030662	0.307780	0.448309	0.653276
5	0.696321	0.089139	98.45452	0.016061	0.030698	0.307777	0.448538	0.653270
6	0.696322	0.089149	98.45429	0.016248	0.030707	0.307776	0.448559	0.653269
7	0.696322	0.089149	98.45427	0.016270	0.030708	0.307776	0.448560	0.653270
8	0.696322	0.089149	98.45426	0.016272	0.030708	0.307776	0.448560	0.653270
9	0.696322	0.089149	98.45426	0.016272	0.030708	0.307776	0.448560	0.653270
10	0.696322	0.089149	98.45426	0.016272	0.030708	0.307776	0.448560	0.653270

Source: Data Processing Results, 2020

The IRF results also show that the shock effect of the KES group variable itself leads to persistent price increases over the next 10 months. This suggests that the variable role itself needs to be considered if it is to control inflation in this group. Similarly, TRASKOJA and sand groups gradually cause the price increase of KES group by increasingly avoiding the price of balance.

### VD Group of Processed food, Beverages, Cigarettes and Tobacco (MAJAMIROTE)

Based on the table below, showing that the shock contribution to MAJAMIROTE group prices in the first month was dominated by its own variables (94.37%), and then followed by kes group price (5.43%). BAMA group accounted for 0.20%. This indicates that MAJAMIROTE group production has a reliance on inputs derived from BAMA group, so the increase in prices in BAMA group contributes quite a small amount to the increase in prices in MAJAMIROTE group in the first month ahead. Starting from the 5th month MAJAMIROTE group contribution itself tends to remain until the end of the period of 93.11% in line with adjustments made by the community especially with the selection of certain substitution goods in order to respond to the price increase on an item in this group.

BAMA, PALIGABA, PENDIREKOR and SAND groups contributed relatively small shock contributions to MAJAMIROTE group which is below 1%. Meanwhile, the contribution of TRASKOJA group price is increasing and from the 6th month until the end of the period remains at 1.25% related to the distribution and marketing that continues to be done in MAJAMIROTE group so that the price contribution to TRASKOJA group is increasingly greater.

**Table 14: VD MAJAMIROTE Group**

Variance Decomposition of MAJAMIROTE:

Period	S.E.	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.477719	0.202520	5.429882	94.36760	0.000000	0.000000	0.000000	0.000000
2	0.500340	0.296493	5.004445	93.23483	0.028113	0.004585	0.209401	1.222136
3	0.501231	0.336293	5.012057	93.11983	0.041526	0.015489	0.224367	1.250440
4	0.501277	0.341364	5.011252	93.10822	0.041561	0.015489	0.228693	1.253420
5	0.501281	0.341739	5.011268	93.10707	0.041579	0.015489	0.229290	1.253567
6	0.501281	0.341762	5.011275	93.10697	0.041587	0.015489	0.229343	1.253570
7	0.501281	0.341763	5.011276	93.10697	0.041588	0.015489	0.229346	1.253570
8	0.501281	0.341763	5.011276	93.10697	0.041588	0.015489	0.229346	1.253570
9	0.501281	0.341763	5.011276	93.10697	0.041588	0.015489	0.229346	1.253570
10	0.501281	0.341763	5.011276	93.10697	0.041588	0.015489	0.229346	1.253570

Source: Data Processing Results, 2020

### VD Housing Group, Water, Electricity, Gas, and Fuel (PALIGABA)

FedV results show that the shock contribution to PALIGABA group price fluctuations is dominated by the variable itself, where it has a contribution from the 1st month to the next 10 months with contributions in the range of 88.28-98.14%. Entering the 8th month its contribution remained until the end of the period at 88.28%. the largest PALIGABA group price fluctuation shock contribution is spread into the other two groups, namely MAJAMIROTE group in the 10th month accounted for 7.11% and BAMA group by 3.86%.

This phenomenon shows that in PALIGABA group price shapers where there are sub-groups whose prices are based on administered prices then price adjustment after shock will depend heavily on the government's own policies. That is the decision to lower prices on sub-groups that are included in administered prices, especially in sub-groups of fuel, lighting, and water. In addition, vd analysis shows that TRASKOJA group's role in influencing price movements in PALIGABA group is not very large, below 1%. The government's policy of simultaneously increasing prices in these two groups is the hardest condition that society has to face in maintaining its purchasing power. Thus, although the economic value of PALIGABA group input costs has increased, the government is likely to withstand the price increase, especially if strategic considerations do not allow to increase the price at that time.

**Table 15: VD PALIGABA Group**

Variance Decomposition of PALIGABA:

Period	S.E.	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.472652	0.056004	0.100710	1.706482	98.13680	0.000000	0.000000	0.000000
2	0.494964	3.720741	0.294780	5.439572	90.34384	0.050211	0.026507	0.124349
3	0.500134	3.864962	0.360204	6.898909	88.51171	0.051237	0.171142	0.141832
4	0.500761	3.858087	0.376804	7.086947	88.29681	0.052708	0.181737	0.146908
5	0.500815	3.857314	0.377829	7.103906	88.27852	0.052792	0.181865	0.147777
6	0.500819	3.857301	0.377861	7.105001	88.27729	0.052794	0.181869	0.147879
7	0.500819	3.857305	0.377862	7.105051	88.27723	0.052795	0.181874	0.147888
8	0.500819	3.857305	0.377862	7.105052	88.27722	0.052795	0.181875	0.147889
9	0.500819	3.857305	0.377862	7.105052	88.27722	0.052795	0.181875	0.147889
10	0.500819	3.857305	0.377862	7.105052	88.27722	0.052795	0.181875	0.147889

Source: Data Processing Results, 2020.

### VD Education, Recreation and Sports Group (PENDIREKOR)

Fedv's results also confirmed an analysis of IRF results in which in the 1st month the largest contribution of gejolak price contributors to the PENDIREKOR group was variable itself at 91.28%. In addition, a considerable contribution came from MAJAMIROTE group of 3.02% and KES by 3.50%. The group that contributed the smallest was SAND less than 1%. Pimplementation of many



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educational operations also requires input from other commodity groups such as BAMA and TRASKOJA.

**Table 16: VD PENDIREKOR Group**

Variance Decomposition of PENDIREKOR:								
Period	S.E.	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.947013	0.330464	3.501968	3.021016	1.769413	91.37714	0.000000	0.000000
2	0.973739	1.920588	3.321255	3.152984	1.761820	87.22090	0.167184	2.455266
3	0.977417	2.234744	3.296570	3.328654	1.749965	86.63417	0.270598	2.485300
4	0.978122	2.258454	3.300983	3.403150	1.750810	86.50961	0.294154	2.482843
5	0.978228	2.259102	3.301821	3.418266	1.751249	86.49090	0.296345	2.482318
6	0.978240	2.259070	3.301892	3.420204	1.751313	86.48879	0.296452	2.482283
7	0.978241	2.259065	3.301895	3.420392	1.751318	86.48859	0.296454	2.482283
8	0.978241	2.259065	3.301895	3.420406	1.751318	86.48858	0.296454	2.482284
9	0.978241	2.259065	3.301895	3.420407	1.751318	86.48858	0.296454	2.482284
10	0.978241	2.259065	3.301895	3.420407	1.751318	86.48858	0.296454	2.482284

Source: Data Processing Results, 2020

### VD Sandang Group (SAND)

FedV results showed that the shock contribution to sand group price changes in the first month ahead was largely influenced by variabel itself of 92.08%. However, in the 3rd month the role of the SAND variable itself was reduced to 89.24%. in addition, influenced also by the PENDIREKOR group by 4.77% in the first month and BAMA group by 2.35%. Atthe end of the 10th month, the biggest influence came from the SAND group itself (89.23%), PENDIREKOR (5.14%) and BAMA (2.81%). This indicates that price fluctuations in the SAND group in the next few months in addition to being influenced by the group itself are also heavily influenced by the price of the PENDIREKOR and BAMA groups. Kes and MAJAMIROTE groups accounted for 1.07% and 1.17% in the 10th month. The other two groups, PALIGABA and TRASKOJA, contributed less than 1%.

**Table 17: VD Kelompok SAND**

Variance Decomposition of SAND:								
Period	S.E.	BAMA	Who	MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	TRASKOJA
1	0.745895	2.349259	0.401573	0.332428	0.059324	4.774123	92.08329	0.000000
2	0.761980	2.789696	1.066860	1.069662	0.512517	5.149910	89.36151	0.049843
3	0.762499	2.807461	1.065448	1.158308	0.523134	5.145627	89.24060	0.059418
4	0.762533	2.807230	1.065918	1.165664	0.523092	5.145247	89.23281	0.060043
5	0.762535	2.807259	1.065930	1.166075	0.523094	5.145223	89.23231	0.060105
6	0.762535	2.807266	1.065930	1.166084	0.523094	5.145222	89.23230	0.060109
7	0.762535	2.807267	1.065930	1.166084	0.523094	5.145221	89.23229	0.060109
8	0.762535	2.807267	1.065930	1.166084	0.523094	5.145221	89.23229	0.060109
9	0.762535	2.807267	1.065930	1.166084	0.523094	5.145221	89.23229	0.060109
10	0.762535	2.807267	1.065930	1.166084	0.523094	5.145221	89.23229	0.060109

Source: Data processing results, 2020.

### VD Group of Transportation, Communication and Financial Services (TRASKOJA)

FedV results confirm irf results where the composition of contributors perprice change in the second largest TRASKOJA group is BAMA group (9.79%) and SAND (2.09%) at the beginning of the period. However, entering the month MAJAMIROTE group became the third contributor to the targeted 6.57% which lasted until the end of the period. TRASKOJA group itself as the largest contributor until the 10th month contributed 74.33%. The KES group is the smallest contributor with a proportion of less than 1%. While the other groups namely PALIGABA and PENDIREKOR until the end of consecutive periods accounted for 1,315 and 1.22%.



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**Table 18: VD TRASKOJA Group**

Period	S.E.	BAMA	Who	Variance Decomposition of TRASKOJA:				TRASKOJA
				MAJAMIROTE	PALIGABA	PENDIREKOR	SAND	
1	1.619324	9.786507	0.023153	0.469169	1.338336	0.206480	2.092154	86.08420
2	1.731744	9.464233	0.062521	6.573978	1.226897	1.233927	6.155331	75.28311
3	1.741516	9.450307	0.235339	7.093975	1.304722	1.224896	6.236809	74.45395
4	1.742792	9.440958	0.242776	7.199286	1.310090	1.223102	6.238679	74.34511
5	1.742931	9.439589	0.243585	7.211674	1.310588	1.222913	6.238203	74.33345
6	1.742944	9.439452	0.243644	7.212850	1.310625	1.222897	6.238123	74.33241
7	1.742945	9.439442	0.243647	7.212940	1.310627	1.222895	6.238117	74.33233
8	1.742945	9.439441	0.243647	7.212946	1.310627	1.222895	6.238116	74.33233
9	1.742945	9.439441	0.243647	7.212946	1.310627	1.222895	6.238116	74.33233
10	1.742945	9.439441	0.243647	7.212946	1.310627	1.222895	6.238116	74.33233

Source: Data Processing Results, 2020

## 5. CONCLUSION

Based on the results of data analysis, this study provides several conclusions as follows:

- The inflation rate in one group of goods/services commodities in Banten is proven to have a dynamic relationship and effect to the inflation rate of other goods/services commodity groups.
- The inflation movement of each commodity group of goods/services is dominated by the group itself.

Meanwhile the policies implications are bellow.

- Controlling inflation in the region is not enough just through monetary policy on a national scale. The problem of inflation in many areas is non-monetary or needs good coordination with the Local Government regarding its control. Therefore, in addition to relying on economic policy nationally, it is also necessary for the policies of local governments in controlling inflation in the region, so that the role and function of the Regional Inflation Control Team (TPID) that has been established becomes very important and crucial in formulating policies and recommendations related to the handling of regional inflation.
- Inflation control in the region is not only partially controlled which focuses on a particular commodity group that is considered to make a major contribution in the shape of regional inflation, but should also look at the entire commodity group simultaneously. This is due to the interconnectedness between the price of inflation-forming commodity groups that contribute to the increase in inflation in other commodity groups.

## LIMITATION AND STUDY FORWARD

The linkages presented as a result still performs in commodity groups, thus on further research it would inform more as it could be elaborated on inter-linkage between commodities.

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## THE ROLE OF FINANCIAL DEVELOPMENT ON MONETARY STABILITY IN INDONESIA: AN EMPIRICAL STUDY

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### Abstract

**Purpose:** The purpose of this study is to prove the role of financial development on the monetary stability as reflected in the stability of domestic prices or inflation.

**Research Methodology:** This study uses the Error Correction Model (ECM) regression technique with timeseries data for the period 1980-2019. The data used is financial development with the variables of financial access, financial depth, and financial efficiency to be analyzed on the inflation rate data.

**Results:** The results of this study prove that financial depth has a positive and significant effect on inflation while financial efficiency has negative and significant effect on inflation

**Limitations:** This study focuses on proving the impact of financial development on the monetary stability in Indonesia.

**Contribution:** This research is useful for the development of science, especially in the fields of finance and monetary policy

**Keywords:** Financial Development, Money Supply, Inflation

### 1. INTRODUCTION

The financial sector plays an important role in economic development. Through an intermediary function, financial institutions are able to trigger economic growth, income distribution, poverty alleviation and financial system stability (Djambak et al, 2020). Efforts that can be made in encouraging the optimization of the role of financial institutions in the economy are through an inclusive financial system (Rakhmindyarto and Syaifullah, 2014). An inclusive financial system is able to facilitate efficient allocation of productive resources so as to reduce the cost of capital. Inclusive finance can also help reduce the growth of informal sources of credit which are often considered exploitative (Sarma, 2012).

Studying the relationship between monetary policy and financial system stability is a challenging topic, given the fact that the views of experts are very complex. Financial developments affect the effectiveness of monetary policy by increasing the sensitivity of credit interest rates. When the central bank changes the benchmark interest rate, the credit interest rate will also change, which will affect investment and consumption behavior. Financial Development causes investment and aggregate demand to be more sensitive to monetary policy.

Various studies have identified the effect of financial development on inflation. Satti et al (2013) stated that in the long run, inflation and financial development have a two-way relationship. Financial development causes inflation and inflation causes financial development. Al Nasser and Jackson (2012) also examined the long-term relationship between inflation and financial development using panel data from 15 countries in Latin America. The results show that there is a negative and statistically significant relationship between banking sector development measures and the inflation rate after controlling for other economic factors that may be associated with financial developments. A similar study was conducted by Almakei and Batayneh (2015) who discussed the relationship between inflation and financial development in Saudi Arabia. The results of his study found that in both the long and short term, inflation had a negative and significant effect on the development of the financial sector.



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Zaman et al (2010) examined the impact of financial development on inflation. His study stated that inflation and financial development have an indirect relationship both in the long and short term in Pakistan. Mahyar (2017) examines the effect of inflation on financial development using data on financial development indicators in Iran, the results show that inflation has a negative and significant effect on financial depth indicators. Then it has a positive and significant effect on the ratio of total deposits. Research conducted by Kim et al (2010) on the long-term and short-term relationship between inflation and financial development. This study found that inflation hinders financial development in the long run, but in the short term these two variables have a positive and significant relationship. Similar results were found by Wahid et al. (2011) in the case of Bangladesh. Their empirical results found that inflation hinders financial development. In line with previous research, Odhiambo (2012) investigates the relationship between financial developments and inflation in Zambia. His study stated that there was a cointegration between financial development and inflation and revealed that the relationship between the two variables was negative.

Different results were found by Abbey (2012) who examined inflation and financial development in Ghana. It uses four financial development indicators, namely the ratio of domestic credit to GDP, the ratio of private credit to GDP, the ratio of value traded to GDP and the ratio of Market Capitalization to GDP. The results of his study found that inflation has no long-term relationship with financial developments in Ghana.

In recent years, financial services authorities have made efforts to enhance financial development, but their effectiveness in supporting monetary stability is debatable. This research is important to do to identify and analyze the role of financial development on monetary stability in Indonesia. Various initiatives to increase financial development in Indonesia will be useful in evaluating the impact of financial development on the Indonesian economy. By knowing the impact of financial development on monetary stability, this study provides important conclusions in determining good monetary policy in Indonesia.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Several previous studies have examined a lot about the relationship between financial development and inflation. Satti et al (2013) examines the relationship between inflation and financial development in the long run. His research found that inflation and financial development have a two-way relationship. Financial developments cause inflation and inflation causes financial developments. Al Nasser and Jackson (2012) also investigate the long-term relationship between inflation and financial developments. Using panel data from 15 countries in Latin America, the results of his study indicate that there is a negative and statistically significant relationship between banking sector development measures and the inflation rate. In the case of Saudi Arabia, Almaki and Batayneh (2015) found that in the long and short term, inflation has a negative and significant effect on financial sector development. In Bangladesh, their empirical study found that inflation hinders financial development (Wahid et al, 2011). Zaman et al (2010) who examined the impact of financial developments on inflation in Pakistan also found the same findings. His study stated that inflation and financial developments have an indirect relationship both in the long and short term. The same finding was also obtained by Odhiambo (2012), he found that there was a cointegration between financial development and inflation with a negative relationship between the two variables.

Study by Kim et al (2010) found that in the short term, inflation and financial development have a positive and significant relationship, but in the long run inflation becomes an obstacle to financial development. Bittencourt (2011) found that inflation has an adverse effect on financial development in Brazil.

Ehigiamusoe et al (2019) found that GDP has a strong positive impact on financial development in high and middle income countries, while the impact is weak in low-income countries. Meanwhile, inflation has a negative effect on financial developments in high and medium inflation countries. In addition, there is evidence to suggest that the inflation rate reduces the impact of GDP on financial



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development, because the marginal effect of GDP on financial development decreases with the increase in the rate of inflation.

The global financial crisis of the last decade has made developed financial system and financial system stability the main focus of discussion. Financial development is based on the fact that the community groups most affected by the 2008 financial crisis are the people from the bottom of the pyramid, which are quite large in number. The implementation of access to inclusive financial services is aimed at defending lower-class communities by empowering them in economic activities.

The level of financial development can be determined by identifying indicators that measure the level of accessibility of financial services in a region. Policymakers need reliable information on the current level of development to develop policy frameworks and actions to overcome barriers. Measuring the level of financial development will be possible to analyze trends and frame policies to address financial exception situations. Generally, the low financial development index is caused by several barriers such as identity requirements, bank account terms and conditions, bank fees, physical access to bank branches, psychological and cultural influences. as well as the ease of using banking services.

The role of financial development on monetary stability has been studied in various countries by several previous studies. However, the results vary widely and are still debated. This study focuses on proving the impact of financial development on the monetary stability in Indonesia. This research is useful for the development of science, especially in the fields of finance and monetary policy.

### 3. RESEARCH METHODOLOGY

The scope of this research is to see the effect of financial development on the monetary stability as reflected in inflation stability for the period 1980-2019 in Indonesia. This study uses a quantitative method with a correlational approach. Method The quantitative approach is a systematic scientific approach using statistical calculation methods while the correlational approach is used to see the relationship between variables in research.

The data used in this study is secondary data in the form of time series which includes data for 40 years (1980-2019). The variables used in this study are the ratio of total deposits collected by commercial banks to residents (deposits/100.000 adult population), the ratio of total loans extended by commercial banks to GDP (loans/GDP), the ratio of total bank branches and atm to residents (branches bank & ATM/100.000 adult population), and inflation

This study uses an econometric model analysis. The estimation used in seeing the effect of the independent variable on the dependent variable is the time series data regression model with the Error Correction Model (ECM) method.

Functions can be written:

$$INF = f(FD1, FD2, FD3)$$

Where: INF = Inflation; FD1 = Ratio of number of bank and ATM branches to 100.000 adult population; FD2 = Ratio of Total Lending to GDP, and FD3 = total deposit to 100.000 adult population

The analysis tool used is multiple linear regression with ECM:

$$DINF_t = \beta_0 + \beta_1 D(FD1)_t + \beta_2 D(FD2)_t + \beta_3 D(FD3) + ECT + e_t$$

Information:

$Y_{1t-2t}$  = Independent Variable;  $\beta_0$  = constant;  $\beta_1 - \beta_3$  = Coefficient;  $e_t$  = error term.

ECT: *Error Correction Term*

### 4. RESULTS AND DISCUSSIONS

#### Descriptive Statistic

Statistics on price levels, growth in the money supply and financial development index in Indonesia are presented in the table below:

**Table 1: Descriptive Statistics**

	INFL	FD1	FD2	FD3	
Mean	9.194069	0.156988	0.102393	0.591649	Mean
Median	7.671354	0.106424	0.110054	0.667153	Median
Maximum	58.45104	0.448802	0.156807	0.774824	Maximum
Minimum	3.030590	0.014024	0.021038	0.143693	Minimum
Std. Dev.	8.707539	0.140973	0.038418	0.179381	Std. Dev.
Observations	40	40	40	40	Observations

Source: World Bank, IMF, 2020 data processed

The movement of inflation in Indonesia has fluctuated very high since 1980. The highest inflation occurred in 1998 at 58.45 percent, this occurred during the monetary crisis that hit Asia and had a significant impact on Indonesia that year. Meanwhile, the lowest inflation occurred in 2019 at 3.03% and the average inflation from 1980 to 2019 was 9.19 percent.

Meanwhile, financial development in Indonesia continues to develop from time to time. The financial access indicator (FD1) which describes the distribution of bank and ATM branches in 1980 was 0.014 and in 2019 it was 0.425, while the highest value was achieved in 2016 of 0.448. The financial depth indicator (FD2) which shows the level of credit disbursement also experienced a significant development from 0.021 to 0.153 in 1980, however, the highest value of financial depth actually occurred in 1997, before the onset of the monetary crisis, which was 0.156. Meanwhile, the financial efficiency (FD3) indicator was at the highest position in 1996 at 0.774 and this value could not be reached again after the 1998 monetary crisis.

### ECM Model Estimation

The results of the Error Correction Model (ECM) approach are described in the table below:

**Table 2: ECM Model Estimation**

Dependent Variable: D(INFL)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FD1)	2.578697	41.55550	0.062054	0.9509
D(FD2)	501.2685	107.5410	4.661184	0.0000
D(FD3)	-73.45869	17.05680	-4.306709	0.0001
ECT	0.934538	0.194652	4.801072	0.0000
C	-0.837792	1.175460	-0.712735	0.4809
R-squared	0.723131	Mean dependent var		-0.229985
Prob(F-statistic)	0.000000			

Source: Data processed, 2020

The coefficient of determination of 0.72 means that all changes in the independent variables are able to explain variations in changes in inflation (INF) of 72.31 percent, and the remaining 28 percent is influenced by changes in other independent variables outside the model. The probability value of F test = 0.00 < 0.05, meaning that all independent variables together significantly influence changes in inflation.

The coefficient D (FD1) is 2.578697 and t-Statistic = 0.062054 with a probability of 0.9509 > 0.05 so there is no significant effect. This means that any changes in Financial Access have no effect on the stability of prices. The t-Statistic value of Financial Depth (FD2) is 4.661184 with a probability of 0.0000 < 0.01 so that the effect of changes in Financial Depth in the short term on inflation is positive and significant. This means that an increase in the amount of lending will increase inflation. Meanwhile, the effect of changes in Financial Efficiency (FD3) in the short term on INF (inflation) is negative and significant at the 1% level. The coefficient D (FD3) is -73.45869 and t-Statistic = -



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4.306709 with a probability of  $0.0001 > 0.01$ . so that any increase in the deposit rate will cause a decrease in inflation.

### Discussion

This study proves that financial development has a significant effect on monetary stability. Financial inclusion affects monetary stability by increasing the sensitivity of credit interest rates. When the central bank makes changes to the reference interest rate, the credit interest rate will also change so that it affects investment and public consumption behavior. Financial development causes investment and aggregate demand to be more sensitive to monetary policy. When the monetary policy aims to hold down the prices fluctuation, financial development taking a role by reducing the money supply through financial efficiency. While to increase economic excitement, financial development plays a role in lending to increase investment and expand aggregate demand.

The financial depth indicator which describes the ratio of lending to GDP has a positive and significant effect on inflation. So that the higher the level of credit extended, it will trigger inflation. The high level of credit distribution causes an increase in household consumption through an increase in the money supply, which shifts aggregate demand and causes inflation. This result is supported by Ciccarelli et al (2014) which measures credit distribution towards inflation, the result stated that credit distribution reinforce inflation.

The estimation result using the ECM model above states that the Financial Efficiency indicator which explains the ratio between total deposits to 100,000 adult population has a negative and significant relationship to inflation. The higher the value of the Financial Efficiency index, the lower the inflation rate will be. The high number of depositors will reduce the amount of money in circulation in the community so that it can reduce purchasing power and reduce aggregate demand and ultimately suppress inflation. This research is supported by Lafukeni (2015) and Anh The Vo et al, that deposits have a negative relationship with inflation. An improved level of financial equity allows the government to predict the movement of monetary indicators through statistics and broadens the range of monetary policy.

### 5. CONCLUSION

The results of this study prove that financial development has a significant effect on monetary stability in Indonesia. When the monetary authority implements a tight money policy, financial development through financial efficiency indicators plays a role in absorbing money circulating in society. Likewise, when the monetary authority applies the easy money policy, financial development plays a role in channeling credit to the public. The policy implication of this research is to increase the level of financial inclusion in Indonesia. Developed financial systems must be followed by inclusive financial access for all levels of society so that the welfare benefits of the presence of financial institutions can be felt by all levels of society. The strategy that can be optimized in improving financial inclusion is by maximizing the role of financial technology which is integrated with conventional finance to reach a wider range of SMEs. Then simplification of procedures for lending, as well as assistance to SMEs entrepreneurs in running their business. This study used a time span from 1980-2017 with a total observation of 38 years. Meanwhile, in 1998 there was a mineral crisis which greatly impacted the distribution of data. Research using data from the section of 33 provinces after the monetary crisis to the latest year will better describe the effectiveness of monetary policy in Indonesia after the monetary crisis in 1998.



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### LIMITATION AND STUDY FORWARD

This study focuses on proving the impact of financial development on the monetary stability in Indonesia. The data used in this study are timeseries from 1980-2019 with a total observation of 40 years. Meanwhile, in 1998 there was a mineral crisis which greatly impacted the distribution of data. Research using cross section of 33 provinces after the monetary crisis to the latest year will better describe the effectiveness of monetary policy in Indonesia after the 1998 crisis.

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## SHIFTING LEGITIMACY STRATEGIES IN ISLAMIC BANKING

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### Abstract

**Purpose:** This study was aimed to explore what were the styles of legitimacy in Islamic financial institutions and how this has shifted over time

**Research Methodology:** The study used a reflective approach to literature data sources and a thematic analysis of the interview results.

**Results:** Islamic financial institutions, especially Islamic Banking, were still looking for a legitimacy strategy; and it appeared that Islamic banks were trying to make sharia compliance a strategy of legitimacy that differentiates them from their rivals, the conventional banks.

**Limitations:** The research was conducted by looking at the phenomenon of the development of Islamic banking in Indonesia; and with respondents from an Islamic banking background in Indonesia.

**Contribution:** This study contributes to the development of a strategy for the legitimacy of Islamic financial institutions so that Islamic banks can compete according to their character.

**Keywords:** *Islamic banking, institutional legitimacy, sharia compliance, sharia legitimacy*

### 1. INTRODUCTION

Islamic banking or other Islamic financial institutions are not the same as financial institutions that have existed and operated so far, which we know as conventional financial and banking institutions. In An Inclusive Ethical Economy: State of the Global Islamic Economy (GIE) Report 2018/19 (haladinar.io, 2018), the Islamic financial sector, which includes sharia banking, is categorized as a faith-based industry. Faith-based finance is a financial industry that stands and operates based on values, philosophy and practice as well as religious laws; and are driven by the faith of their followers (Izberk-Bilgin & Nakata, 2016; Lesser et.al, 2016; Dharani et.al, 2019). Faith-based finance does not measure the performance and achievement of success based solely on material indicators. Non-material indicators are also a measure of achieving success. The non-material indicators referred to here are material indicators which are based on the faith-based philosophy itself, namely the maintenance and implementation of the values and practices of the religion that is believed in. So, based on this understanding, the faith-based finance industry, it can be said that Islamic banking financial institutions are financial institutions as well as religious institutions (Soediro et.al, 2019). In maintaining the existence and development of institutions, which are often interpreted as strategies and efforts to legitimize institutions, faith-based financial institutions must of course have their uniqueness. The different characters should make the strategies adopted and implemented between conventional financial institutions and faith-based financial institutions also differ.

Trust from customers is the main key for the survival of banking institutions, both conventional and Islamic banking. Even though it is not the main stakeholder of Islamic banking, because the main stakeholder of Islamic financial institutions must be Allah (Soediro et.al, 2019), but without customer support, Islamic banking has no legitimacy to continue operating. In Islamic banking, one of the main factors determining customer loyalty is the suitability of the sharia label carried by the institution with the operations and human resources of Islamic banking to the rules and principles of Islamic sharia. Therefore it is necessary to explore what are the styles of legitimacy in Islamic financial institutions and how this has shifted over time. Legitimacy is quite a crucial matter that must be managed wisely procedurally or structurally. The position of the company in the eyes of the public and stakeholders is very much dependent on the legitimacy strategy planned and implemented by management (Chedrawi et.al, 2020). The condition of the company, the location of the company, the social environment, and



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the diversity of stakeholder interests make various legitimacy strategies. Strategy legitimacy by companies can be done in many ways and strategies according to management's interests and policies (Islam, & Kokubu, 2018). Furthermore, the legitimacy strategy is also influenced by age, maturity, and the era and time when the company operates (Su, et.al, 2015). The legitimacy strategy can change according to company policies and strategies in dealing with all conditions, especially in crises (Maroun, 2018); and has also proven to be very important for the development of companies in various countries and various types of business (Vollero et.al, 2018), including in the banking industry sector (Islam et.al, 2020),

### 2. RESEARCH METHODOLOGY

This paper uses a reflective approach to literature data sources and a thematic analysis of the interview results. Data from various documents ranging from books, internet information, and the results of previous studies related to the development of Islamic banking, especially in Indonesia, from the beginning of the emergence of Islamic banking in Indonesia until now, are collected and then analyzed to obtain information related to how Islamic banking is, developing and changing aspects of the legitimacy strategy. It includes the factors and conditions that make Islamic banking adopt and implement these policies and strategic styles. Analysis of the results of interviews with several members of the Sharia Supervisory Board and management at Islamic banks is also added to obtain an overview of the phenomenon being studied from the perspective of the perpetrator. Both the literature and the results of the interviews above were analyzed to obtain themes and all matters related to them in order to obtain a comprehensive picture of the changes in the legitimacy style of Islamic banking from time to time under various conditions.

### 3. RESULTS AND DISCUSSIONS: SHIFTING OF LEGITIMACY STYLE

#### *Labelling as a Strategy*

The growth of Islamic banking in Indonesia first began with the establishment of Bank Muamalat in 1992. The establishment of Bank Muamalat was driven by the growing enthusiasm for running a non-usury business as a way out of the bank interest system which is considered haram by some Muslim scholars in Indonesia. For some observers and researchers of Islamic banking, the establishment of Islamic banking and finance in Indonesia can be said to be quite late compared to other Muslim-majority countries or even non-Muslim-majority countries such as Britain which started the Islamic finance industry in the 1980s (Di Mauro et.al., 2013). This is also added to the number of the Muslim population in Indonesia as the largest in the world. According to Venardos (2005) this delay is caused by the opinion of most Muslim scholars in Indonesia that bank interest is not haram and is permissible as a form of profit-sharing. Respondent DPS02, who is the Sharia Supervisory Board of several Islamic banks, said that differences of opinion about the prohibition of usury in Indonesia are an obstacle to the establishment and development of Islamic banking. He explained that some Muslim scholars, who allow bank interest, were based on the argument that it is permissible to take excess debt if it is not burdensome and oppressive. However, for DPS02 Respondents, this cannot be used as a basis for permissible bank interest, because the size is burdensome and oppressive, it must be different for everyone.

Furthermore, due to strong encouragement from several parties who believed in the prohibition of bank interest and saw the presence of production sharing banking in several countries with a smaller number of Muslims, the Indonesian government accommodated this request. After a process of exploration and discussion for some time in the late 80s, finally, the Indonesian government included the Islamic banking system in Law Number 7 of 1992 concerning the Banking System which was spelled out in several government regulations. For Khan & Bhatti (2008), the establishment of Bank Muamalat in 1992 was a milestone in the development of Islamic banking in Indonesia which has also become a pioneer in the Islamic banking and finance industry in the world.

However, it cannot be denied that the start of the Indonesian Islamic banking industry above cannot be separated from the sense of "offense" over the establishment of several Islamic banks in several countries which incidentally have a much smaller Muslim population than Indonesia. Therefore, the



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preparations that were made in the context of the establishment of the first Islamic bank in Indonesia were accompanied by several fundamental problems. These problems include the lack of human resources in Islamic banking who know Islamic banking operations; the absence of resources of scholars who understand Islamic economics, especially the Islamic financial and banking industry; the Indonesian Muslim community's low understanding of Islamic banking and finance; and of course the country's banking system is not yet supportive. Respondent M03 stated that the condition of human resources at the beginning of the establishment of the Islamic banking industry in Indonesia was still not ideal. He explained that most of the Islamic banking personnel at that time came from conventional banking human resources and still lacked knowledge of Islamic banking and muamalah fiqh, but they had a high Islamic spirit. From this information, it can be understood that the establishment of the first Islamic bank in Indonesia came about with great enthusiasm and encouragement caused by the above issues. At least this was accompanied by several problems that had to be managed in such a way so that banking operations could continue. Among the problems is uncertainty about how this bank will survive. As a bank that is just emerging and with a type and style that is outside the mainstream, Islamic bank management is certainly difficult to find a model to emulate. Surrounded by large, older conventional banks, the question management had to answer was how they started and competed. Also, with the profit-sharing system that is offered to potential customers, the next question is how much to ask them to place their funds in Islamic banks or transfer the funds they have placed in conventional banking to Islamic banks. Regarding this interest, of course, there are key points that must be answered, namely how much competitive returns can motivate prospective customers to move their funds. This happens because the character of the customer has long been formed by the ribawi conventional banking system. Of course, at the beginning of its operation, Islamic banking management had to seek and use other aspects besides arguing in terms of material benefits. Islamic banking policies and management styles in other countries can be used as a reference, but of course, the demographic and social conditions of society with different characters require different treatment and implementation. Another problem that had to be faced by Islamic banks at the beginning of their establishment was the limited human resources who understood the operations and management of Islamic banking. The relatively short preparation time, triggered by the mandate of the IV MUI National Conference on 22-25 August in Jakarta, until the establishment of Bank Muamalat in 1992, made the process of preparing qualified and appropriate human resources to carry out their duties as professional Islamic bankers also questioned.

With some of the above constraints, the Islamic bank, which was only established for the first time and is still the only one in Indonesia, must calculate what strategies should be taken and carried out so that the operation of this first Islamic bank can continue and continue to develop. The environment and consumer coverage which are still limited to certain circles are also factors that are taken into consideration. These early potential consumers are those who do not care about profit or loss. These types of costumers are those who have a devout Muslim background and always try to avoid transactions related to bank interest. At that time customers were invited to participate in Islamic banking by expressing their views on the prohibition of usury and providing other alternatives in the form of non-usury banking or Islamic banking. Islamic banking is positioned as an alternative to the existing banking system. Consequently, at this stage, Islamic banking operated and developed by relying on the Islamic label as the main capital. It can be said, labelling is a strategy of Islamic banking legitimacy at the beginning of its existence. Labelling is a legitimacy strategy which, although not ideal, is suitable for use in such situations.

With all conditions above, there appears to be no questionable issue related to performance in the banking industry in general. At this stage, Islamic banking only serves as a means of holding funds for customers who have more funds to save but also have an understanding of the prohibition of usury. Many hope that this banking model will lead the banking industry market in the future (Khan & Bhatti, 2008). At this time, the desire to make Islamic banking is not just ordinary banking has begun to be stated by several authors (Dixon, 1992; Dusuki, 2008), however, it seems that Islamic banking actors were still in their "honeymoon" period so that the institutional legitimacy strategy was only concerned with the incessant fatwa about the prohibition of usury (Shook & Hassan, 1988; Haron



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et.al, 1994). If not managed properly, in the long run, this condition could make Islamic banking operations look unorganized and run away from what was expected (El Din & Ibrahim, 2006).

### *Financial Performance as a Strategy*

The next chapter for the first Islamic bank in Indonesia was the economic and financial crisis in 1997-1998 where Indonesia was hit hard. In this era, the crisis was marked by a political crisis marked by a change of state leadership (Nakamura, 1999; Chua, 2007; Marks, 2009). At the same time, a social crisis emerged with the occurrence of various social unrest in various places in Indonesia (Zha, 2000; Panggabean & Smith, 2011; Winarnita, 2020;). Of course, the banking industry has also entered into this crisis, including Islamic banking which was only established a few years earlier. One thing that many supporters of Islamic banking in Indonesia are proud of is the ability of the first Islamic bank in Indonesia to survive and escape the whirlwind of the financial and economic crisis. Many parties doubt this for various reasons, but until now the history in the world of Islamic banking in Indonesia is still believed to be the initial evidence that the Islamic banking industry is considered more resilient to crises (Nofinawati, 2015; Rahman, 2015; Khoiri & Hendri, 2017; ). Several recent studies also at least confirm the resilience of Islamic banks against crises (Zarrouk, 2014; Mohammed & Muhammed, 2017; Baber, 2018; Hashem & Abdeljawad, 2018)

This is one of the reasons the Islamic banking industry in Indonesia is starting to be the glare of many investors and potential customers who have not understood and realized the advantages of Islamic banking. Although it has not been able to compete with conventional banks that have been present and developed rapidly, the movement of some conventional bank customers to Islamic banks for various reasons has forced Islamic banking in Indonesia to try to compete with the performance of conventional banks, especially in very basic aspects, namely financial performance. Several reasons why Islamic banking in Indonesia began to think about and focus on financial performance, among others; Financial performance is seen as very related and fundamental to business sustainability (Ning & Wong, 2019; Ukko et.al, 2019; Yan & Huang, 2020); good financial performance can attract more investors and customers (Liaoa et.al, 2012; Wohlgemutha et.al, 2016; Mbana, 2018); Increasing financial performance also has a positive impact on asset enlargement (Rahayu, 2019; Migliaccio & Tucci, 2019). Also, at that time, regulations related to banking in Indonesia had not accommodated the operational style and Islamic banking contract because there were no specific regulations regarding Islamic banking, Islamic banking was covered by section added to banking law (Act No.10 1998 and Act No. 23 1999) (Iqbal & Molyneux, 2005). This forces Islamic banking to compete with conventional banks in the same arena so that problems arise due to differences between sharia principles and banking-related law (Djojosingito, 2008). Besides, there are also problems in determining the margin (Hutapea & Kasri, 2010); and liquidity limitation rules that are regulated uniformly across all banks (Ismal, 2010; Alexakis & Tsikouras, 2009) are sufficient to make Islamic banking in Indonesia have to work very hard. All of which made Islamic banks have to prove themselves to be more competitive in terms of financial performance for the sustainability of institutional operations. Respondent M02 who is a manager at Islamic banking said that all efforts made by management cannot be separated from the pressure of the predetermined financial performance achievement targets. Various kinds of policies and strategies were taken and implemented not only to achieve these financial performance targets but also to protect the position of the institution from the fiercely competitive climate in the financial industry which was recovering from the crisis in the previous period, 1997-1998 (Tilman & Rajadhyaksa, 2002; Ghosh, 2003; Kamer, 2004). Islamic banks in the 2000s did not only have to compete with conventional banks but also with fellow Islamic banks that were just starting to emerge and plunge into the vortex of financial industry competition. So strong is this pressure that it is not uncommon for Islamic banking management for various reasons to do things that are unethical and even violate Islamic sharia rules (Awang & Ismail, 2018; Awang et.al, 2019).

The increase in customer coverage, not limited to 'traditional' customers, means that Islamic banking must also think and act to be able to compete with conventional banking in various aspects, mainly in the aspect of financial performance (Ismal, 2010a). In addition to being encouraged to satisfy



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customers who are starting to expand in scope, Islamic banking must also comply with government regulations or financial authorities that still equate the performance measurement of banking institutions, both Islamic and conventional banking (Alam, 2013). In turn, Islamic banking must also compete in the aspect of financial performance which must be measured by conventional approaches (Ahmad & Luo, 2010; Ismal, 2010b). Deprived of their convenience, at this time Islamic banking could no longer hide behind the label, they had to fight to prove that they were better. Islamic banking is starting a new stage of its legitimacy strategy by competing in the financial aspect (Siddiqui, 2008; Ismal, 2010c).

### *Non-Financial Performance as a Strategy*

At the beginning of the first decade of the 20th century, the development of the business world began to be influenced by performance issues in addition to financial performance. Non-financial performance has begun to be the talk of some researchers in management and accounting. Researchers' attention to the importance of non-financial performance can initially be drawn from the introduction of the Balanced Scorecard (BSC) concept to the business world in 1992 by Kaplan & Norton. Kaplan and Norton (1992) raise three elements of non-financial performance from a total of four types of performance in the BSC. This at least provides a basis for the development of discourse on the use and measurement of non-financial performance in business institutions (Low & Suesfeld, 1998; Kloot, 1999).

Nonfinancial performance has found increasing acceptance in the business world (Gonzalez et.al, 2011). There are some reasons the private sector uses the non-financial in their business that generally are divided into internal and external managerial purposes. The internal purpose could be related to information asymmetry, efficiency, productivity, and quality (Arvidsson, 2011; Gonzalez et.al, 2011; Orens and Lybaert, 2010; Uyar, 2011) and also as a tool to increase and create values in manufacturing companies (Malgharni, 2010). On the other hand, the external purpose tightly related to how the company deal with the external stakeholders (Cardinaels, 2010; Corama et al, 2011; Kang et al, 2010; Assaf et al, 2012; Belal and Cooper, 2011) and seeking legitimacy (Mahadoue et al, 2011; O'Dwyer et al, 2011). It could be said that generally the studies that related to non-financial, in a private sector, are more about the company's sustainability report and the seeking of legitimacy to deal with the stakeholders and the issue of social, environment and other non-financial themes. Non-financial performance management concepts have also penetrated and adopted by the banking and financial services industry (Hussain et.al., 2002; Hussain & Gunasekaran, 2002; Hussain, & Hoque, 2002; Hussain & Islam, 2003; Al-Enizi, et ' al., 2006). According to Respondent M01, Islamic banking in recent years has begun to focus on customers, society and the environment. This is also done as an effort to face competition in conventional banking. Conventional banks are quite advanced in technology development and customer service strategies. This progress is also supplemented by customer and community engagement programs that are potential customers. Also, public involvement activities are generally carried out to build an image of a bank that cares and is foremost in providing services to the community. For Islamic banking, this condition forces management to work hard to deal with this new aspect of competition, even though the competition has not yet been completed on the financial aspect. According to Respondent M01, several management policies were taken and implemented to compete in this aspect of non-financial performance, including strengthening service innovations for customers such as 'pick-up funds' programs or banking services at customers' homes in addition to various reward programs for customers that imitate conventional banking styles. In building its image in society and prospective customers, Islamic banking also uses a corporate social responsibility (CSR) policy. In this program, Islamic banking can use CSR funds as well as non-halal funds that cannot be included in the income of Islamic banks. Many Islamic banks also have their amil zakat institutions. With the potential for devout Muslim customers, the amil zakat institution under the banner of Islamic banks has at least two important sides. The first side is to make it easy for customers to fulfill their obligation to worship their assets comfortably and easily. While on the other hand, the funds collected from customers by this zakat institution can be used for the public benefit while building the image of a caring Islamic bank. In addition to the above programs, Islamic banks have begun to emphasize aspects of ritual obedience to management and employees. This is



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done to instill Islamic values in employees who come from various backgrounds, even most of whom do not have background knowledge of Islam, and are also expected to give a good and religious impression to the customers of Islamic banks. After the 1997-1998 financial crisis, Islamic banking in Indonesia improved by making regulations governing the Islamic banking industry and improving the quality of human resources, especially in the field of Islamic law to face tighter competition in the world of the financial industry (Khan & Bhatti, 2008).

At that stage, the development of the business world leads to institutional legitimacy by incorporating non-financial elements into the performance aspects of the institution. This is also accompanied by the growing awareness of the business world about the importance of accommodating the interests of stakeholders. Likewise in Islamic financial institutions, non-financial aspects and stakeholder interests have begun to receive a lot of attention, both from practitioners and researcher (Al-Beshtawi, 2014; Maric, 2014; Tumewang, 2019). Although this has been pointed out by Dusuki (2008), it has only received a lot of attention in recent years. For Islamic banking, this legitimacy effort is carried out in various ways, starting from the development of a corporate social responsibility program (Zafar & Sulaiman, 2019), accommodation of stakeholder interests (Abubakar, 2018; Janahi & Al Mubarak, 2017), and paying attention to environmental problems (Bukhari et.al, 2019), customer relation management, service quality and organizational performance (Lebdaoui & Chetioui, 2020).

### *Practical Sharia Compliance as a Strategy*

Changes in the legitimacy of Islamic banking strategies (policies, strategies and operations) several decades ago seem to always follow the strategies of existing conventional financial institutions. The strategy is both financial and non-financial as described above. This makes Islamic banking generally look like conventional banking which is its competitors. This statement is proven in several studies that show that many customers think that Islamic banks are similar or even the same as conventional banks, only with slightly different skins and practices (Tobin, 2014; Ahmed, 2016; Miah, & Suzuki, 2020).

The public urge to immediately improve the condition of Islamic banking management is getting bigger. This pressure comes from Islamic banking proponents who are concerned about the image of Islamic banks which are increasingly similar to conventional banking practices. Of course, this condition cannot be tolerated because it does not only concern the Islamic banking industry but also concerns the name of Islamic sharia and Islam as a whole. Therefore, many of the researchers have given warnings as well as recommendations from various study results with the various perspectives that they use. Mayes and Alqahtani (2015) argue that sharia compliance can eliminate uncertainty due to a lack of information at initial public offerings (IPOs). Sharia Compliance is also able to provide and build good perceptions from customers of Islamic banks and their operations (Saqib et.al, 2016). Even Ullah and Khanam (2018) provide evidence that sharia compliance is able to provide increased financial performance because it is seen as being able to provide internal and external strengthening for Islamic banks in achieving financial performance targets. The most recent development, efforts to legitimize institutions by sharia banking seem to enter a realm that is still seeking conclusions about the importance of sharia auditing and governance (Algabry et.al, 2020; Buallay, 2019) and the urgency of sharia compliance (Hanif, 2018). Islamic banking is of course different in terms of philosophy and practice (Soediro et.al, 2019) and cannot be equated with conventional rivals (San-Jose & Cuesta, 2019). From the internal perspective of Islamic financial institutions, Respondent DPS01 provided information that the importance of sharia compliance is not only for materialistic financial and non-financial purposes. This statement illustrates that Islamic banks are not just ordinary financial institutions, so the strengthening of legitimacy that must be taken must also be in harmony with its characteristics. Islamic banking is an institution that becomes Islamic sharia as the basis and guide for its movement; therefore it is natural that sharia compliance must become its method and strategy of legitimacy. It seems that lately, sharia banking institutions have begun to refer to sharia compliance as a strategy for institutional legitimacy, whether they do it with a conscious and understanding choice; or just following the trend. Especially for Indonesia, it is sufficient Brown et.al



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(2007) who from a long time ago have criticized that with an extraordinary Muslim population, Islamic banking is still very far behind conventional banking, even today.

#### 4. CONCLUSION

Islamic banking requires a legitimacy strategy in order to maintain the operational sustainability of its institution. Every institution, including financial institutions, has their own ways and models of legitimacy strategies. More specifically, Islamic financial institutions also have their own strategies of legitimacy. However, with a relatively young age and with different operating characters and philosophies from its conventional rival, Islamic financial institutions, especially Islamic banking, of course has to work with different methods from conventional. Islamic banking in its several decades of development has seen a change in the strategy of legitimacy. Initially, Islamic banking institutions relied on a strategy of legitimacy with the Islamic label they carried. This has also been maintained for some time, reinforced by the fatwas of the scholars. The next stage is to compete with conventional financial institutions in the financial performance war. In line with the strong awareness of matters related to non-financial performance, Islamic financial institutions eventually have to modify their legitimacy strategy by paying more attention to the interests of stakeholders. Until now, Islamic financial institutions are still looking for a legitimacy strategy; and it appears that Islamic banks are trying to make sharia compliance as a strategy of legitimacy that differentiates them from their rivals, the conventional banks.

#### LIMITATION AND STUDY FORWARD

The research was conducted by looking at the phenomenon of the development of Islamic banking in Indonesia; and with respondents from an Islamic banking background in Indonesia. It is necessary and highly recommended to carry out further studies on Islamic banks and the management in several countries that have different characters.

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## DISSIMILARITY INDEX, LABOR SUPPLY AND LENGTH OF SCHOOLING ON WAGE GAP IN INDONESIA

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### Abstract

**Purpose:** Analyzing the effect of worker characteristics based on length of schooling, LFPR and dissimilarity in each province on the wage gap in Indonesia 2015-2018.

**Research Methodology:** The model for estimating the wage gap is a regression equation with panel data, namely the level of wages, length of schooling, Labor Force Participation Rate (LFPR), and the number of male and female workers based on the type of occupation of various provinces in Indonesia in 2015 - 2018. The analytical method used is the OLS (*Ordinary Least Square*) using eviews software.

**Results:** The wage gap in Indonesia, based on Index D does not significantly affect it and the coefficient is also very small. The most dominant factor affecting the wage gap is the difference in school length.

**Limitations:** This research does not include other aspects of human capital, namely skills or experience of workers. The wage gap can also be explained more clearly if we look at the economic growth in each province and it will be more comprehensive if all provinces can be analyzed.

**Contribution:** This research will be very useful to enrich the discrimination of workers in Labor Economics.

**Keywords:** Wage gap, Dissimilarity index, length of schooling, LFPR

### 1. INTRODUCTION

Gender-based labor market differences have attracted the attention of researchers, policy makers and international institutions. Wage or income gaps exist between male and female workers in both industrialized countries and the transition from agriculture to industry. In America, the female to male wage ratio was between 79 and 81 percent between 2000-2010; in EU countries the wage gap was between 15 and 17 percent during 1994-2006. The wage gap in Italy and Portugal is only one digit but in Cyprus, Estonia and the United Kingdom it is more than 20 percent (Banerjee, 2014). This finding occurs in all countries including Indonesia, where the wage gap in 2015-2018 shows an increasing trend of around 11 percent (BPS, 2019).

In essence, the labor wage gap according to gender is still a topic of discussion and a problem in every country in the world, one of which is Indonesia. The labor wage gap according to sex is the difference in the average wage that occurs between men and women or a difference that shows that the wages of female workers are lower than that of men. Anker (1998) states that women's wages are lower than men in almost all countries in the world, and this wage difference occurs in all wage patterns, both daily, weekly and monthly and occurs in almost all non-agricultural and manufacturing sectors.

This gender wage gap can also have a negative impact on the domestic product of a country. Based on research in Australia it was found that the average impact of the gender wage gap on gross domestic product per capita was -0.507, which means that each 1 percent increase in the average wage gap leads to a decrease in economic growth of 0.507 percent (Cassels et al. 2009).



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There are several characteristic factors that cause differences in wage application between male and female workers. The first factor causing the wage gap is the level of education. According to Jacob (2006), the low wages of female workers compared to male workers are due to differences in human capital, namely education. Education level is one of the factors that influence the quality of human resources and in turn will affect the level of wages received by workers. The higher the level of education a worker has, the higher the wages they receive. For example, a person who has graduated from high school will receive a higher wage than someone who only graduated from elementary school.

Changes in education levels facilitate female's entry into the labor market. The more educated female, the higher the level of participation. In Indonesia, the phenomenon of increasing the level of education of female in 2015-2018 accompanied the increase in men. However, if we look further, it is found that there are differences in the level of education of the male and female population based on the average length of schooling (Table 1). In general, in all provinces, female take 7.35 - 7.72 years of education, which is still shorter than male 8.35 - 8.62 years. This means that the level of education of female in Indonesia is still lower than that of male.

**Table 1: Average Length of Schooling by Gender in Indonesia**

Province	Average Length of Schooling (years)							
	Male				Female			
	2015	2016	2017	2018	2015	2016	2017	2018
Aceh	9.16	9.19	9.36	9.49	8.4	8.54	8.62	8.71
North Sumatra	9.42	9.48	9.55	9.61	8.66	8.78	8.96	9.08
West Sumatra	8.63	8.72	8.86	8.87	8.32	8.49	8.6	8.66
Riau	8.8	8.81	9.02	9.12	8.17	8.36	8.49	8.71
Jambi	8.46	8.5	8.59	8.67	7.44	7.63	7.7	7.77
South Sumatra	8.17	8.18	8.3	8.32	7.37	7.48	7.67	7.68
Bengkulu	8.7	8.72	8.76	8.93	7.89	8.01	8.16	8.28
Lampung	7.92	7.93	8.08	8.14	7.19	7.33	7.49	7.5
Bangka Belitung Islands	7.99	8	8.1	8.17	7.14	7.31	7.48	7.51
Riau Islands	9.86	9.87	10	10.01	9.36	9.46	9.57	9.6
Jakarta	11.21	11.34	11.43	11.46	10.2	10.42	10.61	10.63
West Java	8.36	8.37	8.59	8.6	7.35	7.52	7.69	7.71
Central Java	7.59	7.68	7.79	7.86	6.5	6.65	6.78	6.87
DI Yogyakarta	9.64	9.67	9.74	9.87	8.4	8.6	8.73	8.8
East Java	7.75	7.81	7.93	7.96	6.57	6.69	6.78	6.85
Banten	8.86	8.9	9.07	9.18	7.66	7.82	7.98	8.04
Bali	9.18	9.2	9.35	9.5	7.33	7.53	7.75	7.82
West Nusa Tenggara	7.51	7.54	7.63	7.81	6.02	6.13	6.27	6.36
East Nusa Tenggara	7.27	7.32	7.46	7.62	6.61	6.75	6.87	7
West Kalimantan	7.42	7.49	7.59	7.61	6.43	6.44	6.49	6.62
Central Kalimantan	8.43	8.49	8.62	8.7	7.59	7.73	7.91	8
South Kalimantan	8.29	8.38	8.45	8.46	7.23	7.4	7.52	7.53
East Kalimantan	9.57	9.61	9.75	9.86	8.68	8.82	8.93	9.06
North Kalimantan	9.12	9.14	9.27	9.52	8.25	8.43	8.44	8.69
North Sulawesi	8.9	8.93	9.1	9.24	8.86	9	9.19	9.24
Central Sulawesi	8.27	8.38	8.56	8.76	7.66	7.84	8	8.27
South Sulawesi	7.97	8.08	8.31	8.32	7.34	7.46	7.63	7.76
Southeast Sulawesi	8.79	8.83	8.98	9.13	7.7	7.86	7.95	8.26
Gorontalo	6.76	6.82	6.98	7.14	7.34	7.41	7.56	7.76



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West Sulawesi	7.33	7.4	7.55	7.66	6.71	6.91	7.08	7.28
Maluku	9.42	9.47	9.63	9.75	8.91	9.08	9.17	9.41
North Maluku	8.91	8.99	9.05	9.15	7.8	8.06	8.17	8.28
West Papua	9.79	9.81	9.89	10.09	6.71	6.8	6.9	7.01
Papua	6.85	6.9	7.02	7.26	5.02	5.32	5.44	5.7
Indonesia	8.35	8.41	8.56	8.62	7.35	7.5	7.65	7.72

Source: Sakernas, BPS, 2018

Several recent studies have shown that female's participation in the labor market is increasing. The level of participation in Indonesia shows a fluctuating situation but the trend is increasing (Table 2). In 2018 the LFPR for male was 82.68 percent, increasing slightly to 83.13 in the following year. Meanwhile, the LFPR for female in the same period did not change at 51.88 percent. In general, the LFPR (Labor Force Participation Rate) for male is still much higher than the LFPR for female, where the LFPR for male is higher, around 1.5 times the LFPR for female.

**Table 2: LFPR based on Gender in Indonesia**

Gender	August 2018	February 2019	August 2019
Male	82.68	83.18	83.13
Female	51.88	55.50	51.89
National	67.26	69.32	67.49

Source: Labor Market Indicators, BPS, 2019

Based on occupation, women workers dominate in types of work (1) Professional, technician and related occupations; (3) Clerical and related occupations; (4) Sales worker and (5) Services worker. Male workers are more dominant in the type of work (2) Managerial and supervisory occupations; (6) Agriculture, forestry, hunting and fishing workers and laborers; (7) Production workers, operation of machinery workers; and (8) others.

**Table 3: Percentage of Workers by Occupation and Gender in Indonesia**

Occupation	KBJI Code	Male	Female
Professional, technician and related occupations	1	5.77	10.59
Managerial and supervisory occupations	2	1.95	0.86
Clerical and related occupations	3	5.21	7.18
Sales worker	4	14.53	26.53
Services worker	5	4.22	9.66
Agriculture, forestry, hunting and fishing workers and laborers	6	27.96	24.35
Production workers, operation of machinery workers	7	37.57	20.68
Others	8	2.79	0.15

Source: Labor Market Indicators, BPS, 2019

The dominance of female in this type of work is 2 times more than that of male workers in this type of work (Table 3). The highest percentage of female workers is in the type of work (4) Sales worker, namely 26.53 percent, while male workers are mostly in the type of work (7) Production workers, operation of machinery workers, namely 37.37 percent.

In earlier empirical studies, discrimination in the labor market was calculated by applying the standard decomposition. Oaxaca (1973) studied the gender wage gap in the US labor market. He found that the wage gap between females and males is quite large. In the same year, Blinder (1973) exploited US



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data to explore the gender and race wage gap. He concluded that there is a difference in wages across different genders and races. Both studies focused on the contribution of discrimination to wage differentials in the labor market. Since then, many more empirical studies have applied the Blinder-Oaxaca decomposition analysis to explore various aspects of discrimination. Coelli (2014), the main finding of this investigation is that occupational differences do contribute to the gender wage gap in Australia when occupation is defined at an appropriately disaggregated level. Joonmo Cho & Donghun Cho (2011) finds out that the wage differential between the formal and the informal sector found among female workers does not appear in the group of male workers. Based on this empirical result, their study speculates that the dual labor market structure aggravates the overall gender earning gap, as female workers are penalized more by locating themselves in the informal labor market than are male workers.

The main objective of this research is to find out whether the characteristics of provinces, especially the characteristics of workers based on length of schooling, LFPR and dissimilarity in each province are the causes of the wage gap in Indonesia 2015-2018.

### 2. LITERATURE REVIEW

*Human capital* per worker  $h$  usually uses a measure average years of schooling of the population of working age (age at over 15 or under 65 years). This measure is considered the most appropriate because *human capital* is reflected of the exponential function of mean years of schooling (Savvides, 2009). Moreover, these parameters can be used to see *the return of schooling* from micro studies. This study was conducted to see the effect of increasing school years to an increase in individual wages.

Muhyiddin (2018) states that differences in wages paid to workers arise because there are differences in *human capital* and differences in types of work. In addition to wages, many companies impose compensation *non-wage* or *fringe benefits* or *benefits in kind*. Wage and non-wage compensation are analyzed in theory *hedonic*. Philosophically, *hedonic* comes from the hedonian concept which hypothesizes that the population pursues utility and rejects disutility. The size of the wages is determined by labor market conditions. The difference in the amount of wages is due to differences in *human capital*, namely workers who have a certain education and as compensation, these workers will get wages that are not the same as workers who have other education.

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The equation  $\ln(W_0)$  or log income is a constant function of  $\ln(W_0)$  and  $S$  is the length of *schooling*. Income can vary according to work experience or age. The *life cycle* wage pattern has an inverted U pattern, so the equation becomes:

$$\ln W_0 = \beta_0 + \beta_1 S + \beta_2 A + \beta_3 A^2 + \varepsilon \quad (1)$$

Where:

$\ln W_0$  = Log Wage

$\beta_0$  =  $\ln Y$  coefficient

$\beta_1$  = School coefficient



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$S$  = length of schooling (years)  
 $\beta_2$  = Work Experience Coefficient  
 $A$  = Work Experience  
 $\beta_3$  = Work Experience Coefficient Quadratic  
 $A^2$  = Work Experience Squared

Mincer Model is known as the Mincer *wage equation* (*mincerian wage equation*). According to Mincer's model of time in education is used as the main determination to increase income (Mincer, 1958).

Hanushek (2020) and Ahmad (2015) say that the production function of education is closely related to the labor market and as a determinant of workers' wages. The reason is because by following the education process it will increase knowledge, skills and expertise. Likewise, Azhar *et al.* (2018), Megasari and Purnastuti (2016) who concluded that education level has an effect on income, and income has an effect on work experience. The higher the level of education, the greater the return on investment in education received. Toutkoushian & Paulsen (2016) and Psacharopoulos and Patrinos (2004), argue that investment in education behaves with investment and physical capital, where there are positive and considerable financial benefits from education.

Differences in income and / or occupation are due to differences in human capital investment (Becker, 1993). Similarities in human capital will lead to similarities in occupation and income. When differences in occupation and income exist, is it due to different attributes of human capital, for example formal education, age, health, residence, presence of children and age, and marital status. Characteristics such as family attitudes and preferences (household utility), family income, national origin, or primary language are also important factors of human capital (Becker, 1993, Bloomquist, 1990, Kidd and Shannon, 1994).

The analysis of the difference in wage compensation can be explained in two ways; The market for risky jobs and the hedonic wage function. Suppose there are two types of jobs in the job market. Some jobs offer a very safe environment so that the chance of injury on this job is equal to zero. Other jobs offer a permanent risk environment so that the chances of injury in this job are equal to one.

It is assumed that workers have perfect information about the level of risk at each job. In other words, the worker knows whether he is working in a safe or risky job. As workers decide whether to accept job offers from risky companies or from safe companies, a company must also decide whether to provide a risky or safe work environment for its workers. The workers' decisions are indicated by their utilitarian function whereas the firm's choice will depend on the profit function.

Market compensation differentials equalize supply and demand and provide the necessary gratuities to attract the last worker hired by the company at risk. The difference in wage compensation and the number of workers working in risky jobs is determined by the intersection of the market supply and demand curves. The supply curve is ascending while the demand curve is decreasing. If the wage differential exceeds the equilibrium level, more people will work for the firm at risk than are demanded, so the wage compensation gap will fall. Likewise, if the wage differential is below the equilibrium level, too few workers will want to work in jobs at risk relative to demand, and the wage compensation differential will increase.

Now, through the hedonic wage function, it is assumed that workers do not like risk and suppose that there are many types of firms. The odds of injury on the job will be various values between 0 and 1. Different workers have different preferences for risk indicated by



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indifference curves. The slope of the indifference curve shows how much wages must be increased to make voluntary workers change jobs more risky. To explain how a company chooses the type of environment it offers for its employment, it is shown with an isoprofit curve. This curve is ascending and concave in scope. Different companies have different isoprofit curves.

The job market marries risk-averse workers with firms that provide a safe environment; Workers who do not think about the risks will run into companies that find it difficult to provide a safe environment. This relationship between wages and job characteristics is called the hedonic wage function. Because workers do not like risk and because it is expensive to provide a safety factor, the hedonic wage function is an upward slope. The slope indicates the increase in wages offered by a slightly more risky job.

The key implications of this theory are summed up easily: As long as everyone in the population agrees on whether a particular job characteristic is "good" or "bad", good job characteristics are associated with low wage rates and bad job characteristics are associated with high wage rates. . For example, a job that is physically demanding may be more unpleasant than other jobs, and is therefore expected to pay a higher wage rate.

His theory, however, suggests that markets compensate for wage differences measuring what is needed to make marginal workers accept certain jobs. If marginalized workers happen to like being hired in risky jobs or being told what to do at that job, the market wage differentials will go in an apparently wrong direction (Borjas, 2013).

The wage gap between male and female may arise due to gender differences in the assessment of certain aspects of work. Several empirical studies provide evidence that female prefer to work in certain jobs and firms, because they are associated with lower investment in job-specific training (Becker, 1971), less competitive environment (Niederle and Vesterlund, 2007), depreciation rate of human capital. lower levels (Gorlich and de Grip, 2009, and Polacheck, 1981), and more pleasant and family-friendly working conditions (Bender, Donohue, and Heywood, 2005; Budig and England, 2001). For this desire, the non-cash job characteristics of women seem willing to accept lower wages.

Ismail and Jajri (2012) in their observations in Malaysia found that differences in wages or income received by workers were caused by race, human capital and job characteristics, saying that workers who received training, had higher education, would be able to receive a higher salary. high when compared to workers who do not attend school as well as people who have more work experience for the various sectors of work they do. Likewise, Tanzel and Bircan (2010) show that the employment sector has an influence on the gap in determining the income received. In the case that occurred in Turkey, it shows or explains that someone who works in the public sector will receive much greater rewards in the form of money compared to someone who works in the private or special sector.

### 3. RESEARCH METHODOLOGY

This research uses secondary data obtained from the 2018 National Labor Force Survey (Sakernas). The data used are the level of wages, length of schooling, Labor Force Participation Rate (LFPR), and the number of men and women workers based on types of occupation of various provinces in Indonesia in 2015 - 2018.

A dissimilarity index was built to measure occupational segregation (Duncan and Duncan, 1955). First, the percentage of all workers in each province where each occupation group is calculated. This index is then half of the absolute total value of the difference between the specific locations of the distribution,

$$ID_{ij} = 0.5 \sum | F_{ij} / F_j - M_{ij} / M_j | \quad (2)$$



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where ID is the Dissimilarity index;  $F_i$  is the number of female workers in occupation  $i$ ,  $M_i$  is the number of male workers in occupation  $i$ ;  $F_j$  is the number of female workers in  $j$  province;  $M_j$  is the number of male workers in the province  $j$ .

The absolute value of the sum of the difference between the percentage distribution of males and females in each occupation is halved (because there are two groups of males and females) to produce values that range in the index from 0 (perfect integration) to 1 (perfect segregation). Then the multiple regression equation used in this study is:

$$L_n WG_{it} = \alpha + \beta_1 ID_{it} + \beta_2 LS_{it} + \beta_3 LFPR_{it} + \mu_{it} \quad (3)$$

where: WG is the difference in income; ID is the Dissimilarity Index; LS is the length of school; LFPR is the level of labor force participation;  $i$  is the province;  $t$  is the year (2015-2018) and  $\mu$  is the error rate.

Equation (3) is a general form of the panel data regression equation. The analytical method used is the OLS (*Ordinary Least Square*) using eviews software. The use of panel data has several advantages, among others (Baltagi, 2005); able to control individual heterogeneity; provides more information, is more varied, reduces collinearity between variables, increases degrees of freedom, and is more efficient; Better for decision-making studies; able to identify and measure effects that simply cannot be obtained from *cross section* puredata or puredata *time series* ; and can test and build more complex behavioral models.

The existing research model will be estimated using 3 approaches, namely the *Common Effect*, *Fixed Effect* and the *Random Effect approach*. To find out whether the wage gap is influenced by dissimilarity, length of schooling and LFPR, a model specification test was conducted.

In order to choose the most appropriate model to use from the three models above, several tests can be carried out, including the Chow test; Breusch-Pagan test or LM test; and the Hausman test. (1) Chow test is a test to determine *Common Effects* or *Fixed effects* model that is most appropriate to use in estimating panel data; (2) LM test used to test whether *Common Effects* or *Random Effects* are most appropriate for estimating panel data; (3) The Hausman test is a statistical test to choose whether the model *Fixed effects* (FEM) or *Random Effects* (REM) is most appropriate to use in estimating panel data. The difference between the two is the presence or absence of a correlation between the individual effects and the independent variables. The Hausman test aims to find out whether there is a correlation as mentioned above. The null hypothesis is that there is no correlation between individual effects and the independent variables. In the absence of this correlation, REM estimators are consistent and efficient. While the FEM estimator is consistent but inefficient. If there is a correlation, the FEM estimator is consistent and efficient but the REM estimator is inconsistent. In addition to the test method, model selection can also be done by testing standard errors. The model with the smallest standard error value is selected. All tests are carried out using the Eviews program (Richard, 2013).

#### 4. RESULTS AND DISCUSSIONS

The selection of the first best regression model was carried out by using the Fixed Effect method significance test Chow test. The following table is the result of the Chow test:

**Table 4: ChowResults**

Effects Test	Statistic	df	Prob.
Cross-section F	2.015967	(26.78)	0.0095

Source: processed data



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Chow test which is shown in Table 4 gives the conclusion that the hypothesis choosing the model is *Common Effect* rejected. This conclusion is based on the value of the probability of cross section  $F$  smaller than alpha 5 percent ( $0.0095 < 0.05$ ). Thus, based on the Chow test, the best model used to analyze in this study is the model *Fixed Effect*.

Second, the significance test of the Fixed Effect method and the Random Effect method. Based on The Hausman test in Table 5 shows that the probability value of *random cross section* is 0.6163, this means that it is greater than 5 percent alpha, so  $H_0$  is not rejected and the model chosen is *random effect*.

**Table 5: Hausman Results**

Test Summary	Chi-Sq. statistics	Chi-Sq. df	Prob.
Cross-section random	1.793775	3	0.6163

Source: processed data

Third, because the Chow and Hausman tests give inconsistent results where Chow and Hausman estimates show differences in the results of selecting the best model, so the best model is determined using the LM test.

**Table 6: LM Test Results**

Null(no Effect) Alternative	rand.	Cross-section One-sided	Period One-sided	Both
Breusch-Pagan		1.275788 (0.2587)	0.700678 (0.4026)	1.976466 (0.1598)
Honda		-1.129508 (0.8707)	0.837065 (0.2013)	-0.206788 (0.5819)
King-Wu		-1.129508 (0.8707)	0.837065 (0.2013)	0.429299 (0.3339)
GHM		-	-	0.700678 (0.3774)

Source: processed data

Estimated results from the *Breusch-Pagan test* show that the value *Prob. Cross-section one-sided* greater than the significance level  $\alpha$  ( $0.2587 > 0.05$ ) so that  $H_0$  is not rejected, which means that the best model according to the LM test is the *Common Effect Model*.

Based on the Chow, Hausman and LM tests, it can be seen that there are differences in results, the Chow test chooses the *Fixed Effect Model* as the best model while the Hausman test chooses the *Random Effect Model* as the best model. So for the final stage of selecting the best model using the LM test which selects the *Common Effect Model*. Thus the final model selection chooses the *Common Effect Model* as the best model.

The choice of the model must be supported by statistical results, based on statistical model comparisons showing that the *Fixed Effect Model (FEM)* is a model that can be interpreted statistically because almost all variables are partially significant, in contrast to the *Common Effect*



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*Model (CEM) and Random Effect Model (REM) which statistically cannot be interpreted in the discussion because all variables are declared partially insignificant, so that through consideration of these statistical results in order to be interpreted perfectly both in theory and in effect, the model chosen is the Fixed Effect Model (FEM).*

The estimation results of panel data using the model *fixed effect* based on Table 7 can be written as follows:

$$\text{Ln WG} = -0.000789 * \text{ID} - 1.125065 * \text{LS} - 0.012293 * \text{LFPR} + 14.63319 + [\text{CX} = \text{F}]$$

**Table 7: Estimation Result of Fixed Effect Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.63319	0.603029	24.26615	0.0000
ID?	-0.000789	0.011155	-0.070733	0.9438
LS?	-1.125065	0.232033	-4.848728	0.0000
LFPR?	-0.012293	0.004104	-2.995425	0.0037
Fixed Effects (Cross)				
_ACEH - C	0.151367			
_NORTHSUMATERA - C	-0.170948			
_WESTSUMATERA - C	-0.848893			
_RIAU - C	-0.251767			
_JAMBI - C	0.314680			
_SOUTHSUMATERA - C	-0.239398			
_BENGKULU - C	-0.017785			
_LAMPUNG- C	-0.475383			
_BANGKABELITUNGISLANDS - C	0.300465			
_RIAUISLANDS - C	-0.198176			
_JAKARTA - C	0.562013			
_WESTJAVA - C	-0.708122			
_CENTRALJAVA - C	0.475494			
_YOGYAKARTA - C	-0.053245			
_EASTJAVA - C	0.151386			
_BANTEN - C	0.481071			
_BALI - C	0.266304			
_EASTNUSATENGGARA - C	-0.516302			
_WESTKALIMANTAN - C	0.831807			
_NORTHSULAWESI - C	-1.124913			
_SOUTHSULAWESI - C	0.216644			
_GORONTALO - C	-1.509741			
_WESTSULAWESI - C	0.076998			
_MALUKU- C- C	-0.807663			
_NORTHMALUKU - C.	0.228275			
_WESTPAPUA--C	2.135759			
_PAPUA - C	0.730073			

Source: processed data

Based on the regression result equation, the average value of the (random error component random error component) is 14.63319. The Dissimilarity Index (ID), the difference in length of schooling (LS) and the difference in LFPR show a negative effect on the income differences between male and female workers (LNWG) in Indonesia. Of the three determinants of gender income differences, Index D does not significantly influence it and the coefficient is also very small. It can be stated that this variable has a very small and insignificant effect on the difference in income statistically.



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The ability to explain the gender income gap by these three variables is 48.34 percent. The proportion of variations in income differences that can be explained by these 3 variables is less than 50 percent. More than 50 percent of the determinants that affect differences in income should be explained.

Referring to the regression coefficient value of each independent variable in the estimation result equation, it can be explained that assuming other factors are constant, the dissimilarity index coefficient of -0.000789 means that each increase in the index score by 1 percent will reduce the worker's income gap by 0.000789 percent. If the difference in length of schooling for male and female workers increases by 1 percent, it will also reduce the worker's income gap by 1.125065 percent. Each increase in the difference between men's and women's LFPR by 1 percent will reduce the income gap for workers by 14.63319 percent. So, the factor that most dominantly affects the income gap is the difference in school length. In the case of the length of school coefficient being negative, this is due to the influence of factors that are not statistically observed. When the education level of male workers is higher than the education of female workers it causes the income gap to decrease, this is because there are other important factors that are not observed such as continuous working years and age of workers.

The findings in this study contradict studies which show that occupational segregation is a major contributor to the gender wage gap (Blau and Kahn 2007; England, Hermsen, and Cotter 2000). At the same time, the decline in occupational segregation was the main factor contributing to the increase in real income for women during the last period of the decade. Hsieh et al. (2010) estimate that between 1960 and 2008 about 60 percent of growth in real wages for black women, 40 percent for white women, and 45 percent for black men could be attributed to a decrease in the rate of occupational segregation; during the same time they estimated a 5 percent decrease in real wages for white males as a result of changes in occupational composition by gender. Just as Hori (2000) found, the gender wage gap can be explained by occupational segregation of only 5.1 percent, likewise Sorensen (1990) shows that in the United States 15-30 percent of the gender wage gap can be explained by occupational segregation.

Based on Table 7, it can be calculated the percentage of worker wage gap for each province, as shown in Table 8. The wage gap getting closer to zero means that the wage gap is low and vice versa if the average wage gap is close to 100. So, overall provinces in Indonesia are not experience a significant labor wage gap. West Papua and Papua are provinces with the highest average wage gap, namely 16.77 and 15.36; while Gorontalo and North Sulawesi were provinces with the lowest income differences, namely 13.12 and 13.51. More than half of the provinces in Indonesia (51.85 percent) show that the difference in the income of male and female workers exceeds the difference in the national average (14.63).

**Table 8: Fixed Effect Model Estimation Results**

province	coefficient	wage gap (percentage)
Aceh	14.784557	0.151367
North Sumatra	14.462242	-0.170948
West Sumatra	13.784297	-0.848893
Riau	14.381423	-0.251767
Jambi	14.947870	0.31468
South Sumatra	14.393792	-0.239398
Bengkulu	14.615405	-0.017785
Lampung	14.157807	-0.475383
Bangka Belitung Islands	0.300465	14.933655
Riau Islands	14.435014	-0.198176
Jakarta	15.195203	0.562013
West Java	13.925068	-0.708122



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Central Java	15.108684	0.475494
Yogyakarta	14.579945	-0.053245
East Java	14.784576	0.151386
Banten	15.114261	0.481071
Bali	14.899494	0.266304
East Nusa Tenggara	14.116888	-0.516302
West Kalimantan	15.464997	0.831807
North Sulawesi	- 1.124913	13.508277
South Sulawesi	0.216644	14.849834
Gorontalo	13.123449	-1.509741
West Sulawesi	14.710188	0.076998
Maluku	13.825527	-0.807663
North Maluku	14.861465	0.228275
West Papua	16.768949	2.135759
Papua	15.363263	0.730073
average		14.633190

Source: Data processed

**Table 9: Nominal Wage Differences Workers by Province in Indonesia 2015- 2018**

Province	Wage Gap (Rp)				Average
	2015	2016	2017	2018	
Aceh	1,002,464	582,564	712,490	544,204	710,431
North Sumatera	844,372	599,922	585,212	549,069	644,644
West Sumatera	620,180	327,265	591,634	801,449	585,132
Riau	1,032,413	605,644	639,699	599,981	719,434
Jambi	588,780	450,017	669,987	536,224	561,252
South Sumatera	1,496,190	655,792	564,731	604,642	830,339
Bengkulu	914,886	631,520	350,410	856,546	688,341
Lampung	808,998	566,908	567,248	299,731	560,721
Bangka Belitung Islands	1,512,321	796,169	668,827	488,003	866,330
Riau Islands	153,218	1,391,348	873,680	1,098,945	879,298
DKI Jakarta	1,064,557	891,246	915,571	1,007,456	969,708
West Java	1,049,078	533,054	704,700	603,505	722,584
Central Java	926,833	619,514	586,338	732,473	716,290
Yogyakarta	803,330	533,910	489,031	523,958	587,557
East Java	917,228	652,833	587,910	618,126	694,024
Banten	1,489,075	471,750	491,007	574,116	756,487
Bali	1,049,851	747,964	910,302	898,011	901,532
East Nusa Tenggara	616,711	219,894	446,324	388,226	417,789
West Kalimantan	1,069,901	542,567	608,225	711,810	733,126
North Sulawesi	434,966	179,343	415,312	224,640	313,565
South Sulawesi	897,384	613,974	1,089,388	1,167,344	942,023
Gorontalo	1,003,115	357,962	431,212	430,263	555,638
West Sulawesi	799,098	383,069	756,186	1,015,684	738,509
Maluku	724,040	242,576	511,752	287,784	441,538



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North Maluku	915,912	641,719	573,700	751,673	720,751
West Papua	332,000	409,228	29,370	778,648	387,312
Papua	739,971	1,052,037	809,963	874,620	869,148

Source: Data processed

Observing what is shown in Table 9 in nominal wage gap of workers in line with the data on Table 8. North Sulawesi Province is an area with a low income difference category, as well as a region showing a high category, namely DKI Jakarta, South Sulawesi and Bali.

### 5. CONCLUSION

The Dissimilarity Index (ID), length of schooling (LS) and LFPR show a negative effect on the income differences between male and female workers (LnWG) in Indonesia. Of the three determinants of gender wage gap, Index D does not significantly influence it and the coefficient is also very small. The most dominant factor affecting wage gap is the difference in length of schooling. In the case of the length of schooling coefficient being negative, this is due to the influence of factors that are not statistically observed.

### LIMITATION AND STUDY FORWARD

This research still does not include the factors that determine the wage gap from other aspects of human capital, namely the skills or experience of workers. The wage gap between provinces in Indonesia can also be explained more clearly if we look at the economic growth in each province. Another limitation is that not all provinces can be analyzed due to the unavailability of data for several provinces in the years observed. The division of regions based on islands can also be an alternative for the analyzed area data. Subsequent research can also measure dissimilarity in the form of horizontal and vertical segregation.

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## THE EFFECT OF ACCOUNTABILITY, DISCLOSURE, AND REPORTING ON THE USE OF VILLAGE FUND FINANCES ON COMMUNITY WELFARE

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### Abstract

This article aims to determine the effect of accountability, disclosure and reporting of the use of village funds on community welfare. The object is Manggar Raya Village, Tanjung Lago District, Banyuasin Regency. This type of research is explanatory research. The sampling method was purposive sampling with the provisions of the Manggar Raya community who had lived for 5 years with a minimum education level of high school and had a relationship with village officials. The sample used in this study were 50 respondents. To test the respondents with a questionnaire, the validity and reliability tests were carried out. After the test, the normality test and hypothesis test were continued. The results of this study found that the accountability and reporting of the use of village funds had a significant effect on community welfare. Meanwhile, the disclosure of the use of village funds has no significant effect on community welfare.

**Keywords:** *Accountability, Disclosure, Village Fund (VF) Reporting and Community Welfare*

### 1. INTRODUCTION

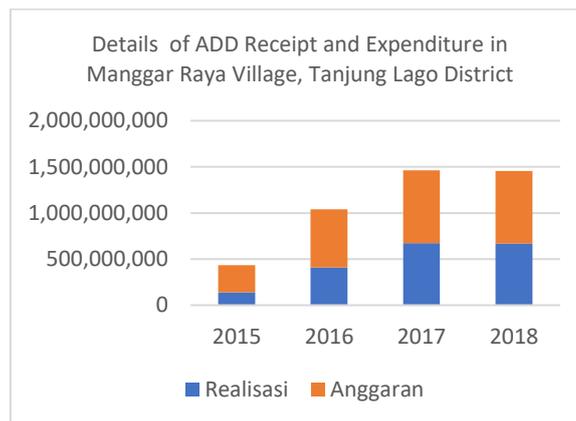
Public Sector Accounting is the same as Government Accounting, which represents the financial position of transactions carried out by public / central / village government entities. With the existence of public sector accounting, it will provide information about the financial position, cash flow performance of the entity for interested users to be able to make decisions on the use of resource allocation used by an entity to achieve its objectives.

Government / village financial reports are presented by government and village. The form of government / village financial reports is different from conventional financial reports. This is clearly stated in Government Regulation Number 71 of 2010 concerning Government Accounting Standards (SAP). In terms of the objective of conventional financial reports, the objective is to make a profit, while the objective of government / village financial reports is not to make a profit but to provide services to the community.

The village as the smallest unit in government participates in the preparation of village financial reports as a form of accountability and transparency in the use of village funds. Village funds are funds allocated by the district government for villages that are sourced from a portion of the central and regional financial balancing funds received by the district. The purpose of providing village funds is as financial assistance in financing village development programs, both physical and non-physical. Village financial management, from planning to budget realization, must involve community leaders and village officials.

The issue obtained from tracing data from ICW (Indonesian Corruption Watch) shows that from 2015-2017 there were 900 village heads who had legal problems due to misuse of village funds. The village head in Dukuhmojo Village carried out a fictional project to build a retaining wall for Rp. 257.8 million. There are other fictional projects in terms of assistance for community social activities. Both projects were not implemented but there are accountability reports. From this it can be said that many village officials do not yet understand the village fund financial reporting system in accordance with Regulation of the Minister of Forestry Regulation Number 19 of 2017 concerning Priority for the Use of Village Funds.

Manggar Raya Village is one of the villages in South Sumatra that received a Village Fund budget of IDR 786,872,991 more than the 2018 State Budget (APBN). Manggar Raya Village is a village located in South Sumatra, Indonesia. The distance traveled from the capital city of Palembang to the village of Manggar Raya is  $\pm$  65 km and has an area of 3,958 km<sup>2</sup> with a population of 2,567 people. The amount of village funds received by the Manggar Raya Village Government in 2015 was Rp. 295,670,000 compared to the allocation of village funds received in 2016 of Rp. 632,500,785 experienced a significant increase.



Source: Manggar Raya Village

The allocation of village funds, which is now being rolled out annually to all villages in Indonesia, must be accounted for and disclosed. Reporting and disclosing village fund finances is an important dimension in the use of finance, including its allocation funds. Reporting and disclosing these financial statements is very important because the amount of village funds for each village receives funding of IDR 1 billion per year. Villages that have received large village funds are required to manage village fund allocations independently.

Community participation has become the key to village development and is also one of the characteristics of good government administration. The participation of all community members or representatives to participate in making decisions in the development planning and management process, including carrying out activity plans to be implemented, the benefits to be obtained, and implementing and evaluating the results of their implementation. Optimal community participation in planning will result in a strong sense of ownership among the community of existing development results.

Unaccountable financial management of village funds has an impact on the welfare of the community. Because financial statements can reflect the achievement of goals through the management of an organization's resources. To achieve village financial governance, there must be transparency / openness in the management and implementation of government to achieve the stated objectives through measurable accountability media.

In connection with the village fund policy that is routinely rolled out by the government every year, it has a very positive impact in terms of encouraging village development which aims to reduce poverty and unemployment. Village funds that have been transferred to village accounts every year are prioritized for village development so that they can improve the welfare of rural communities, through meeting basic needs, building village facilities and infrastructure, developing local economic potential and utilizing natural and environmental resources in a sustainable manner.



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Disclosure and reporting of village funds is the last stage in making village government financial reports. Disclosure and reporting media in the form of realization reports and accountability reports for the realization / implementation of APBDesa which must be informed in writing to the village community using media that is easily accessible to the village community such as Village Information boards, official websites of district or village governments. The essence of disclosure and reporting in terms of village financial management can be accounted for from various legal, administrative and moral aspects.

Therefore, various interesting issues arise to be raised in more depth with regard to accountability, disclosure and reporting of the use of village funds on village welfare, so that we can find out whether the use of village funds is going well according to the Banyuasin Regency Regent Regulation Number 4 of 2017 concerning Management Guidelines Village Finance in Banyuasin Regency.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### LITERATURE REVIEW

#### Agency theory

The main principle of this theory is in the form of a working relationship between the party giving the authority (principal) and the party receiving the authority (agency) in the form of a cooperation contract, which is commonly called the "nexus of contract". Delegation of authority occurs when a person or group of people (principal) chooses another person or group (agent) to act in the interests of the principal (Lupia and McCubbins, 2000).

The influence of agency theory is in the accountability of village fund management, the party entrusted with implementing village fund program activities is village government officials. Law No. 6 of 2014 stated that the management of village funds involves community participation. Village officials must be able to be accountable for the management of village funds in a comprehensive and transparent manner. The competence of village government officials and the leadership of the village head will determine the success of implementing physical and non-physical development of the village.

#### Public welfare

Community welfare is a condition for the fulfillment of material, spiritual and social needs such as the need for food, drink, adequate housing, education and health costs that are guaranteed and of a national standard so that they can live properly and be able to develop themselves so that they carry out their social functions.

#### Accountability for the Use of Village Funds

Accountability in government administration is defined as the government's obligation to be accountable for the management and implementation of government to achieve the stated goals through accountability media that is measurable both in terms of quality and quantity (Sabarno, 2007). Accountability accountability media is not limited to accountability reports, but also includes aspects of the ease with which the mandate provides information, both directly and indirectly orally or in writing, so that accountability can grow in an environment that prioritizes openness as a basis for accountability (Sulistiyan, 2011) .

#### Disclosure of the Use of Village Funds

Wolk, Tearney, and Dold (2001) in Suwardjono (2014) interpret the definition of disclosure as follows: Broadly interpreted, disclosure is concerned with information in both the financial statements and supplementary communications including footnotes, post statement events, management's discussion and analysis of operations for the forthcoming year, financial and operating forecasts, and additional financial statements covering segmental disclosure and extensions beyond historical cost. It can be concluded that the definition of disclosure is the delivery (release) of information in financial



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statements, including financial position statements, profit / loss statements, cash flow statements, owner's equity reports, and notes to financial statements.

### **Report on the Use of Village Funds**

The meaning of the context of "reporting" is an accounting system structured in such a way that the collection and reporting of costs and revenues is carried out in accordance with the responsibility center in the organization with the aim that the person or group of people responsible for deviating budgeted costs and revenues can be appointed (Mulyadi, 2004: 218).

### **HYPOTHESIS DEVELOPMENT**

#### **a) The Effect of Accountability on the Use of Village Funds on Community Welfare**

Hadi (2016) states that community welfare is closely related to transparency of village fund financial management. Where transparency is a measure of the principle of openness which certainly can make the community, especially the village community, to obtain and know the broadest possible description of access to information regarding regional / village finances. This is supported by Mahmudi's research (2015) which states that transparency is one of the fundamental aspects for the realization of good governance.

The openness of the Village Head in submitting the accountability report for the realization of the Village Budget to the village community will get innovative ideas for village development from the community. If this is done properly, it will have a positive effect on the welfare of the village community. Automatically, the accountability system will increase public trust in the village government. From the above statement it can be formulated as a hypothesis:

Ha1: there is an effect of accountability for the use of village funds on the welfare of the community in Manggar Raya Village, Banyuasin Regency.

#### **b) The Effect of Disclosure of the Use of Village Funds on Community Welfare**

Disclosure of the report on the realization of the Village Fund in writing by the Village Head to the Regent / Mayor. In good governance, disclosure is not only conveyed to the government, but also must be conveyed to the public.

The disclosure of the report on the realization of the Village Fund greatly affects the welfare of the community. With the disclosure of the report on the realization of village funds, the community will provide input and proposals for village development or improvement of the village economy, the impact will improve community welfare.

Hermana and Robby (2013) state that transparency of financial information using internet media will increase public confidence in an entity, namely local government.

From the above statement it can be formulated as a hypothesis:

Ha2: there is an effect of disclosing the use of village funds on the welfare of the community in Manggar Raya Village, Banyuasin Regency.

#### **c) The Effect of Reporting the Use of Village Funds on Community Welfare**

Financial reporting accountability tools are described in financial reporting from budget unit employees to the head of the budget department. A correct system of accountability for use is needed in order to monitor and control the posts for receiving and spending village funds.

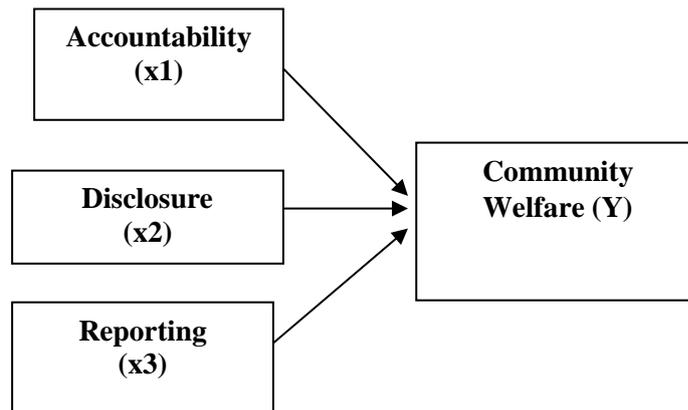
Accountability reporting media is not limited to accountability reports, but also includes aspects of the ease with which the mandate can obtain information, either directly or indirectly orally or in writing, so that accountability can grow in an environment that prioritizes openness as the basis of accountability (Sulistiyani, 2011: 71).

Outsiders of financial statement information are the general public, shareholders, creditors, and government officials. In general, disclosure is the final step in the accounting process, namely presentation in the form of a full set of financial statements.

From the above statement it can be formulated as a hypothesis:

Ha3: there is an effect of reporting the use of village funds on the welfare of the community in Manggar Raya Village, Banyuasin Regency.

The presentation of the theoretical framework is as follows:



### 3. RESEARCH METHODOLOGY

#### Population and Sample

The population in this study were the people in Manggar Raya Village. The sample of this research is 50 community members in Manggar Raya Village.

#### Research Approach

The approach used by explanatory research is to test the hypothesis under study in order to explain the effect of the independent variables (accountability, disclosure, and reporting) on the dependent variable (public welfare) either partially or simultaneously in the hypothesis.

#### Types and Sources of Data

This study uses primary data with the help of a questionnaire. For the sample using purposive sampling technique, provided that:

1. Minimum high school education
2. Know the village environment in Manggar Raya Village, Banyuasin Regency
3. Manggar Raya villagers who have lived for at least 5 years
4. Has a relationship with Manggar Raya village officials

### 4. RESULTS AND DISCUSSIONS

This study uses data analysis methods are descriptive statistics, normality test and hypothesis testing.

**Table 2: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std.Deviation
Accountability VF	50	44.00	50.00	47.3000	1.90863
Disclosure VF	50	12.00	15.00	14.1000	1.18235
Reporting VF	50	10.00	15.00	13.7000	1.61940
Community Welfare	50	18.00	25.00	23.0600	1.77752
Valid N (listwise)	50				

**Source: Processed 2020**

**Table 3: Validity Test**

No.	Variable	Pearson Correlation	r-table	Sig.	Info.
1	<b>Accountability VF</b>				
	Question 1.1	0,299	0,279	0,03	Valid
	Question 1.2	0,538	0,279	0,00	Valid
	Question 1.3	0,284	0,279	0,04	Valid
	Question 1.4	0,379	0,279	0,07	Valid
	Question 1.5	0,519	0,279	0,00	Valid
	Question 1.6	0,280	0,279	0,04	Valid
	Question 1.7	0,284	0,279	0,04	Valid
	Question 1.8	0,563	0,279	0,00	Valid
	Question 1.9	0,450	0,279	0,01	Valid
	Question 1.10	0,606	0,279	0,00	Valid
2	<b>Disclosure VF</b>				
	Question 2.1	0,802	0,279	0,00	Valid
	Question 2.2	0,929	0,279	0,00	Valid
	Question 2.3	0,828	0,279	0,00	Valid
3	<b>Reporting VF</b>				
	Question 3.1	0,877	0,279	0,00	Valid
	Question 3.2	0,799	0,279	0,00	Valid
	Question 3.3	0,818	0,279	0,00	Valid
4	<b>Community Welfare</b>				
	Question 4.1	0,667	0,279	0,00	Valid
	Question 4.2	0,430	0,279	0,02	Valid
	Question 4.3	0,830	0,279	0,00	Valid
	Question 4.4	0,559	0,279	0,00	Valid
	Question 4.5	0,665	0,279	0,00	Valid

**Source: Processed 2020**

From the above results, for each question in the independent and dependent variables, the r-count value is greater than the r-table, it can be concluded that the data is valid.

**Table 4: Reliable Test**

Variable	<i>Cronbach's Alpha</i>	Info.
Accountability VF	0,676	Reliable
Disclosure VF	0,797	Reliable
Reporting VF	0,740	Reliable
Community Welfare	0,620	Reliable

**Source: Processed 2020**

From the results above, for the Cronbach's Alpha value greater than 0.6, it can be concluded that the data is reliable.

**Table 5: Normality Test**

Information	<i>Unstandardize residual</i>
<i>Asymp.Sig. (2-tailed)</i>	0,200

**Source: Processed 2020**

From the results above for the Asymp.Sig. (2-tailed) is greater than 0.05, it can be concluded that the data is normal.

**Table 6: Hypothesis Test (t)**

Variable	t- count	t- table	Sig	Information
Accountability VF	2,756	2,006	0,008	Significance
Disclosure VF	1,564	2,006	0,125	not significant
Reporting VF	2,010	2,006	0,040	Significance

**Source: Processed 2020**

The results of the regression equation show that the t-test results for the accountability variable for the use of village funds are known to be t-count (2.756) > t-table (2.006) or it can be seen from the significance value of 0.008 <  $\alpha = 0.05$ . This means that H1 is accepted, so it can be said that the accountability for the use of village funds has a significant effect on the welfare of the community.

Next, the variable for disclosing the use of village funds is known to be t-count (1.564) < t-table (2.006) or it can be seen from the significance value of 0.125 >  $\alpha = 0.05$ . This means that H1 is rejected, so it can be said that the disclosure of the use of village funds has no significant effect on community welfare.

The variable for reporting the use of village funds is known to be t-count (2.010) > t-table (2.006) or it can be seen from the significance value of 0.040 <  $\alpha = 0.05$ . This means that H1 is accepted so that it can be said that accountability for the use of village funds has a significant effect on community welfare.

### **The Effect of Accountability, Disclosure and Reporting on the Use of Village Funds on Community Welfare**

Of the four models carried out to estimate the variables of community welfare (Y), accountability (X1), disclosure (X2) and reporting (X3), the results obtained by accountability and reporting of the use of village funds have a significant effect on community welfare. It can be said that these results are not in line with research by Suci and Sugeng (2015) and Lina and Mawar (2015). The parameters for accountability and reporting of the use of village funds lie with the Village Head and the Regent. The village head is tasked with submitting an accountability report on the realization of the implementation in the form of income, expenditure and financing to the Regent at the end of each fiscal year. The Regent is in charge of receiving the accountability report for the realization of the implementation through evaluation and filing. A good accountability report can be submitted publicly via the internet or written media which can be seen by the public.

Meanwhile, the disclosure of the use of village funds has no significant effect on community welfare. It can be said that these results are in line with research by Hermana and Robby (2013). In fact, the measurement of full disclosure is the hope for the public in yearning for a transparent and accountable government. This disclosure is very useful in building a harmonious relationship between the government and the village community.

## **5. CONCLUSION**

Based on the results of research and discussion regarding the influence of accountability, disclosure and accountability for the use of village funds on the welfare of the community in Manggar Raya Village, Tanjung Lago District, Banyuasin Regency, the following conclusions can be drawn:

1) The variables of accountability and accountability for the use of village funds have an effect on the welfare of the community in Manggar Raya Village, Tanjung Lago District, Banyuasin Regency. Meanwhile, the disclosure of the use of village funds has no effect on the welfare of the community in Manggar Raya Village, Tanjung Lago District, Banyuasin Regency. This means that the higher the disclosure of the use of village funds, the lower the welfare of the community.



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2) The use of village funds is very beneficial for the rural economy. To use village funds, it requires financial management in an accountable manner, disclosure and accountability that must be optimal. If accountability, disclosure and accountability are carried out correctly, the welfare rate of the community will increase, the unemployment rate will be low, the wheels of the rural economy will rotate in the village, and rural development will be better.

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## THE CHARACTERISTICS OF ZAKAT, INFAQ, SADAQAH AND WAKAF (ZISWAF) COLLECTION ON ZAKAT INSTITUTION (LAZ) IN PALEMBANG CITY

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### Abstract

This study aims to analyze how zakat administrators (amil) at the Zakat Institute (LAZ) manage Zakat, Infaq, Sadaqah and Wakaf (ZISWAF) from collecting ZISWAF funds from donors (muzakki) and distribute it to zakat recipients (mustahik) in Palembang City. This is a descriptive quantitative research using primary data by obtained directly through interviews with informants at LAZ which was selected through purposive sampling technique. The results of this study indicate that ZISWAF donors in Palembang City are still dominated by the general public/individuals with the types of donations dominated by infaq and sadaqah. Another finding is the highest ZISWAF distribution in Palembang City is in the education program and the ZISWAF recipients are mostly absorbed in health and education programs. The limitation of this study is the sample of research subject is small, because there are still very few LAZs in Palembang which are officially registered to BAZNAS Sumsel. The results of this study are useful for BAZNAS Sumsel and LAZ in expanding the collection segment, increasing the types of donations and distribution as well as improving management operations.

**Keywords:** ZISWAF, Muzakki, Mustahik, LAZ, Zakat

### 1. INTRODUCTION

The city of Palembang, where the majority of the population is muslim, has great potential in collecting and managing zakat, infaq, sadaqah and wakaf (ZISWAF) funds. Based on the records in 2019, Baznas South Sumatra managed to collect zakat from the community worth IDR 3,4 billion (Purwanti, Jati & Kurniawan, 2020). ZISWAF can play a very significant role in distributing income and wealth in muslim societies. The implication of zakat is that the growth of wealth due to zakat can be explained by the effect of zakat on income, consumption, savings, investment and labor and the multiplier effect of zakat on the macro economy (Pramanik, 2002). Zakat, infaq, sadaqah and wakaf are among the instruments of fiscal policy for muslim societies that have been known for a long time and have provided success in income equalization and improvement of social welfare. In the Islamic economic system, the fiscal policy has been applied since the ancient time of Prophet Muhammad. In the reign of Rasulullah, the income of the country not only came from tax, but also from the zakat, infaq, sadaqah and wakaf. Revenue from zakat, infaq sadaqah and wakaf is different from tax, and is not treated like a tax. Zakat is a muslim obligation, it is part of The Five Pillars of Islam. infaq sadaqah and wakaf is a reflection observance of a muslim to Allah. Zakat, Infaq sadaqah and wakaf are a fundamental element in Islam which is the imperative of the pillars of Islam. In the reign of Rasulullah and Khulafaurasyidin zakat was the main state revenue as an obligation of muslim people, while the non-muslim people was required to pay tax. The effective of state revenue and the efficient of allocation of state assets have led to prosperity and peaceful among the people at that time (Widyanata & Yuliana, 2019).

Poverty is still a social problem in all cities in Indonesia. Zakat as an economic instrument in Islam has now become an alternative solution to poverty alleviation in Indonesia. Zakat is one of the important things in Islamic philanthropy. As the third pillar of Islam, zakat must be paid by every muslim who meets the requirements (*muzakki*) to purify his property by distributing his zakat to zakat recipients mustahik (*mustahik*). This zakat not only function to help the *mustahik* economy, but can also be a balancing instrument in the national economic sector. In the long run, the main objective of



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zakat is to transform *mustahik* into *muzakki*. This shows that zakat has the potential to overcome economic inequality and reduce poverty in a country. The distribution of zakat in the form of business assistance is proven to have a positive impact on increasing *mustahik* business income, this has an impact on reducing the poverty rate in North Aceh Regency (Hamzah & Syahnur, 2013). The distribution of zakat in the form of an educational program is also proven to have a positive impact on increasing the welfare of *mustahik*. Zakat spending and education are important determinants of real GDP growth suggesting that they are essential ingredients to be considered in formulating economic development programs in the muslim countries. Muslim countries must also give priority to education in their development strategy to increase the stock of human capital needed to achieve a sustained economic development (Yusoff, 2011).

Data shows that zakat collection is still only one percent of the total potential zakat collection for the muslim population in Indonesia (BAZNAS, 2019). This is due to the low trust of *muzakki* to pay zakat to formal zakat institutions. The Public Interest Research and Advocacy Center (PIRAC) survey shows that the level of public trust in zakat institutions in 2004 was only 15%. The majority of muslims still pay their zakat individually directly to *mustahik*, apart from a conservative religious understanding, the factor of trust is still an obstacle to zakat management (Lestari, Pratiwi, & Ulfah, 2015). Zakat is part of the wealth that have been obliged by Allah SWT to be given to those who are entitled to receive it as stated in the Qur'an. Zakat has tremendous potential to overcome the poverty of the nation and prosper the society. This potential must be realized by all muslims so that the funds collected through zakat can prosper the society. There are still many muslims who do not understand the importance of paying zakat, for that it is necessary to do socialization and education to the public regarding the law and wisdom of zakat, the assets of the object of zakat as well as the procedures for its calculation. This socialization can be carried out by the government in collaboration with the zakat institution, BAZAS, or the extension agents assigned to this matter. Thus, the awareness of paying zakat will grow in muslims. In order for public awareness and trust in zakat to thrive, it can be realized through the accountable, transparent and professional performance of the Amil Zakat Institute (LAZ) and the National Zakat Agency (BAZNAS). For this reason, amil zakat institutions must have good and professional management.

Professional management of zakat must be supported by adequate resources, so that zakat as a very potential economic source of the people is guaranteed to provide welfare for the community. The zakat management institution is a non-profit organization that aims to help muslims distribute zakat, infaq, sodaqoh and wakaf to those who are entitled. This activity involves several interrelated parties, namely the funder of zakat, managers and recipients of zakat. Usually, the fund managers are not the people the funders actually know. The problems of trust and professionalism are important prerequisites for zakat institutions both LAZ and BAZNAS today and in the future. Therefore, public trust to LAZ has an important role in collecting zakat. LAZ also has an important role in expanding the collection of zakat collection in all types of society with various backgrounds. If LAZ can collect more funds from various types of *muzakki*, automatically the distribution of zakat to *mustahik* will also increase.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Based on UU No. 23 of 2011 states that zakat management is an activity of planning, organizing and monitoring the collection and distribution and utilization of zakat. So from the meaning of zakat management, it explains that there are three elements of management, namely the collection, distribution, and utilization of zakat.

Zakat is an asset that must be issued by a muslim or a business entity to be given to those entitled to receive it in accordance with Islamic law. Infaq is property issued by a person or business entity outside of zakat for the benefit of the general public. Sodaqoh is property or non-property issued by a person or business entity outside of zakat for the general benefit. Wakaf means giving assets to be used by public interests, wakaf assets cannot be sold or inherited. Muzaki is a muslim or a business entity that is obliged to pay zakat. *Mustahik* is a person who is entitled to receive zakat. National



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Zakat Agency, referred to as BAZNAS, is an institution that manages zakat nationally. Amil Zakat Institution, abbreviated as LAZ, is an institution formed by the community which has the task of assisting, distributing and utilizing zakat. Zakat Collection Unit, abbreviated as UPZ, is an organizational unit established by BAZNAS to help increase zakat (Hisamuddin, 2018).

LAZ (*Lembaga Amil Zakat*) is zakat management institution established by the private sector. The main duty of LAZ is as an institution that manages, collects and empowers *mustahik* from zakat funds. LAZ is a zakat management institution that is fully formed on the initiative of the community and by people engaged in zakat management, preaching, education, social and the muslim welfare. LAZ is confirmed, fostered and protected by the government. In carrying out its duties LAZ provides reports to the government according to its level. The validation of LAZ is carried out by the government according to the suggestion of BAZNAS by conducting a research on requirements. The conditions for LAZ are: legal entity, have *muzakki* and *mustahik* data, have work program, attach a statement letter willing to be audited (Kompas, 2015). LAZ's responsibilities are to: the community, *muzakki*, *mustahiq*, the Government or Ministry of Religion, BAZNAS, DPS, and LAZ are responsible for distributing zakat funds to *mustahik* appropriately.

Research entitled "Mapping of Zakat, Infaq and Sodaqoh Distribution at BAZNAS Jombang Regency". By using a qualitative approach, the results of this study is the unavailable some of the human resources needed for the implementation of the ZISWAF distribution program, and not optimal management functions of the management and executor of BAZNAS Jombang as the main strength of ZISWAF distribution program in Jombang Regency (Hidayati, Chamim, Huda, & Haryanti, 2020).

Research entitled "The Strategy of Collection and Distribution of Zakat, Infaq, Shadaqah LAZ Muhammadiyah (LAZISMU) Medan City". Using qualitative approach, the research found LAZISMU uses its strategic position and technological advances in zakat collection, but the results of ZIS collection at LAZISMU are still low so that their distribution is also low (Fahmi, 2019).

Qualitative descriptive research entitled "Analysis of the Fundraising Model of Zakat, Infaq and alms at the Zakat Institution" concludes that there are two models of zakat, infaq and alms fundraising which are effective for zakat institutions to use in collecting zakat, infaq and alms from the community. *Muzakki* directly coming to the zakat institution to pay zakat and indirectly such as through transfers, events, outlets and application systems and zakat information (Susilawati, 2018).

The research entitled "Unraveling the Problems of Zakat Distribution to the Poor" with a qualitative approach to the Analytic Network Process (ANP) problem decomposition method shows that several problems that need to be made as top priorities are the absence of standards in determining priority *mustahik*, no landscape and *mustahik* database, low mental and awareness of *mustahik* and overlapping distribution with government programs (Arifandi, 2016).

Research entitled "Zakat Funds Collection Strategy at Five Zakat Institutions in Indonesia". Using the Spyder Web Analysis method that resulted the conclusion that Dompot Dhuafa is the best in the strategy of collecting zakat, infaq and alms by implementing an integrated and wide-ranging promotion and socialization strategy overseas (Azis & Sukma, 2016).

The research entitled "Analysis of Muzakki Characteristics and LAZ Governance on the Motivation to Pay Zakat Income". Using multiple linear regression analysis techniques, it found that the level of faith, religious knowledge, LAZ governance and the level of income have a positive and significant effect on the motivation to pay zakat (Kiryanto & Khasanah, 2016).

The research entitled "Zakat Management by LAZ in Surabaya and Gresik" aims to explore the potential of company zakat in industrial based-areas using socio-legal research methods. The results of this study indicate that zakat empowerment is still oriented towards individual zakat. BUMN (government companies) and Islamic Banks distribute corporate social responsibility funds but do not



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distribute zakat from their companies. Even though zakat of the company is potentially greater (Purbasari, 2015).

Qualitative descriptive research entitled "Effective Management of Zakat Management in the Contemporary Era" concludes that professional zakat management needs to be carried out by interrelating various activities related to zakat, ranging from *amil*, *muzakki* and *mustahik* (Atabik, 2015).

The research entitled "Analysis of Factors influencing Muzakki in Selecting Zakat Management Organization (ZMO): Case Study in BAZNAS Bogor City". Using the Logistic Regression Method analysis technique. It found that the factors that influence *muzakki* in choosing ZMO are income, level of reliability, and image of the institution (Rulian, Anggraeni, & Lubis, 2015).

The research entitled "*Muzakki's* Trust in Zakat Management Organizations: Empirical Studies on the Effect of Accountability and Transparency Mediation". This study aims to examine the effect of *amil* literacy on *muzakki's* trust in the Zakat Management Organization. By using linear regression analysis techniques complemented by path analysis, it can be concluded that *amil* literacy affects *muzakki's* trust in ZMO either directly or indirectly through transparency of financial reporting (Ardini, 2013).

Previous studies focused more on the management side of ZIS managers and the motivation of *muzakki* to pay zakat. Based on previous studies, the author tries to examine more deeply about the characteristics of the ZISWAF collection that has been successfully carried out by LAZ and how the efficiency of LAZ's performance from when viewed broadly from the side of *amil*, *muzakki*, collection, distribution.

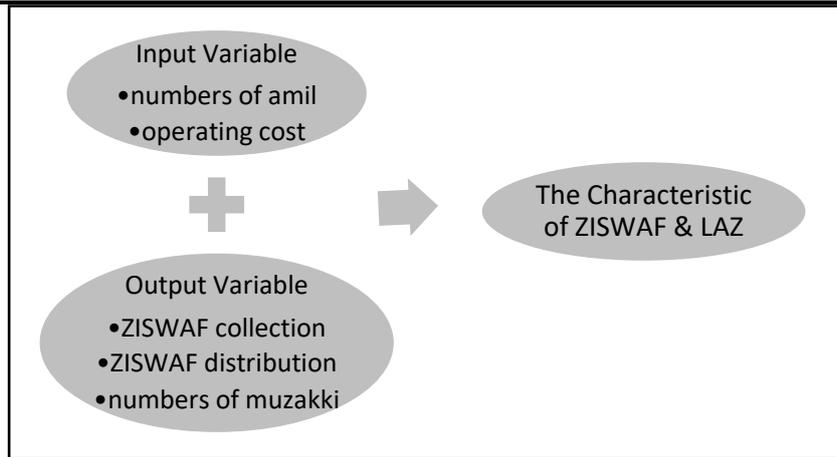
### 3. RESEARCH METHODOLOGY

This study used a quantitative descriptive approach. It is research that was sourced from the data collected and expressed in numbers. Quantitative data is data in the form of numbers or extrapolated qualitative data (Suryana et al., 2013).

Collecting data in a scientific research is intended to obtain relevant, accurate, and reliable material or data that we want to examine. Therefore it is necessary to use good and suitable data collection methods. The data collection used in this research is primary data. Primary data is a source of research data obtained directly from the original source. Primary data can be obtained by conducting direct interviews and giving questionnaires to informants. Interviews were conducted based on a list of questions that had been compiled beforehand so that they were in accordance with the final objectives of the research. In conducting the interview, it is necessary to prepare questions as a guide but it is possible if there are variations in other questions for each informants (Fatihudin, 2015).

In this research, the primary data used were obtained directly from respondents through interviews and questionnaires with informants from LAZ. The determination of LAZ sample was using purposive sampling technique or judgment sampling where the researcher selects the sample based on an assessment of several characteristics of the sample members adjusted to the purpose of the study (Kuncoro, 2009). There were three samples or units of analysis taken in the study. They are chosen because those LAZ has been officially registered and supervised by BAZNAS Pusat and BAZNAS Palembang City. The three units of analysis are LAZ Yakesma, LAZ Yatim Mandiri and LAZ Dompot Dhuafa.

In analyzing the characteristics of the ZISWAF collection by LAZ in Palembang City, the authors used two input variables and three output variables. The input variable consists of the amount of *amil* and operating expenses. While the output variable consists of ZISWAF collection, ZISWAF distribution and the number of *muzakki*.



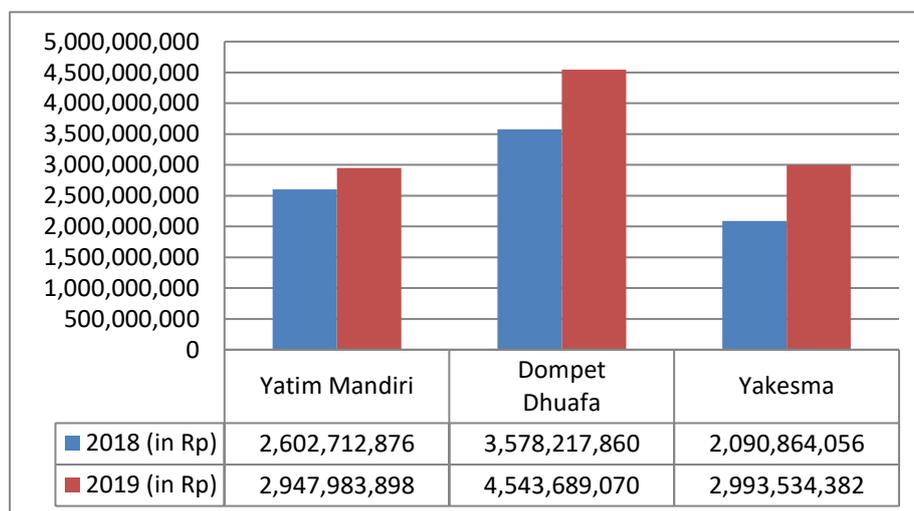
**Figure 1: The characteristics of the ZISWAF collection by LAZ**

This research begun by collecting primary data in the form of both quantitative and qualitative data. Primary data obtained from the results of interviews with informants in each LAZ that were the object of research. The primary data that has been collected is then used by the author to calculate descriptive statistics using Microsoft Excel. Furthermore, the authors conducted a frequency analysis. Frequency analysis is an analysis that includes an overview of data frequencies such as mean, median, minimum, maximum and standard deviation (Sugiyono, 2017). Finally, the authors conducted an analysis and interpretation of the results obtained.

## 4. RESULTS AND DISCUSSIONS

### ZISWAF Collection in 2018-2019

The amount of zakat, infaq, sodaqoh and wakaf that can be distributed to *mustahik* depends on the amount of ZISWAF collection carried out by LAZ from the *muzakki*. The following is a graph of the collection of ZISWAF from LAZ in Palembang City.



Source: data processed

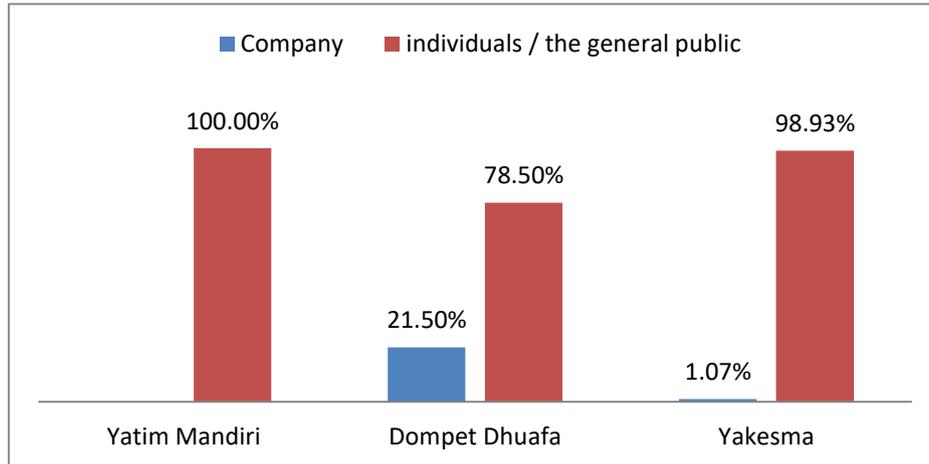
**Figure 2: ZISWAF Collection in 2018-2019**

Figure 2 shows that the ZISWAF collection of the three LAZs has increased. Dompot Dhuafa experienced the highest increase in ZISWAF collection of IDR 965.471.210, from IDR 3.578.217.860 in 2018 to IDR 4.543.689.070 in 2019. Yakesma also experienced a large increase in ZISWAF collection by IDR 902.670.326, from IDR 2.090.864.056 in 2018 to IDR 2.993.534.382 in 2019. This is a very good achievement for Yakesma considering this LAZ has only been established

for less than three years. while Yatim Mandiri received an increase in ZISWAF collection of IDR 345.271.022, which is IDR 2.602.712.876 in 2018 to IDR 2.947.983,898 in 2019.

### Sources of ZISWAF Collection Based on Donor Segments

In general, the largest source of ZISWAF collection in 2018-2019 comes from individuals / the general public. This is in line with Indah Purbasari's findings that zakat collection is still oriented to individual zakat. The following below is a graph of the average ZISWAF collection sources in 2018-2019.



Source: data processed

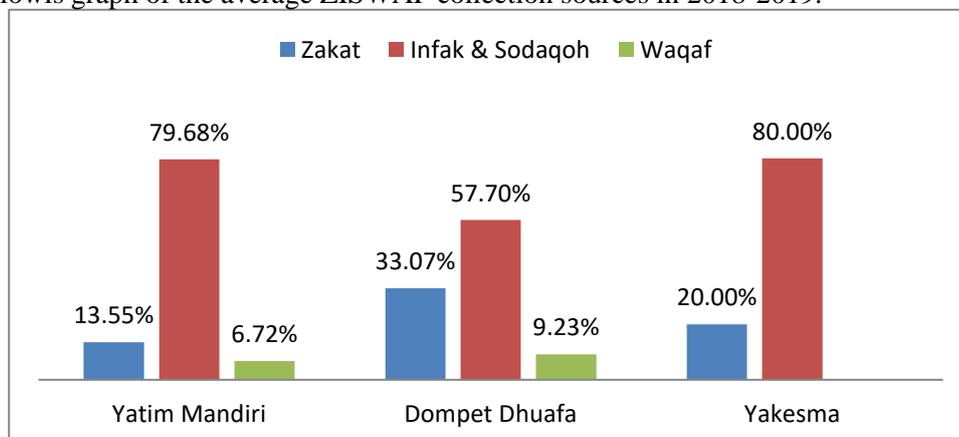
**Figure 3: Percentage of ZISWAF Collection in 2018-2019 Based on Donor Segments**

Figure 3 shows the percentage of ZISWAF collection in Palembang City in 2018-2019. Yatim Mandiri, all ZISWAF collections come from the general public/individuals. Dompot Dhuafa 70,50% of ZISWAF collection comes from the general public/individuals, while 21,50% comes from companies, namely Pertamina, Conoco Philips and PLN UIK. Yakesma 98,93% of ZISWAF collection comes from individuals/general public, only 1,07% comes from companies, namely the IGM School and the PLN UIP.

This result is in line with one of the previous literature reviews which found that zakat empowerment is still oriented towards individual zakat (Purbasari, 2015).

### Sources of ZISWAF Collection by Type of Donation

In general, the largest sources of ZISWAF collection in 2018-2019 came from *infaq* and *sodaqoh*. The following below is a graph of the average ZISWAF collection sources in 2018-2019.



Source: data processed

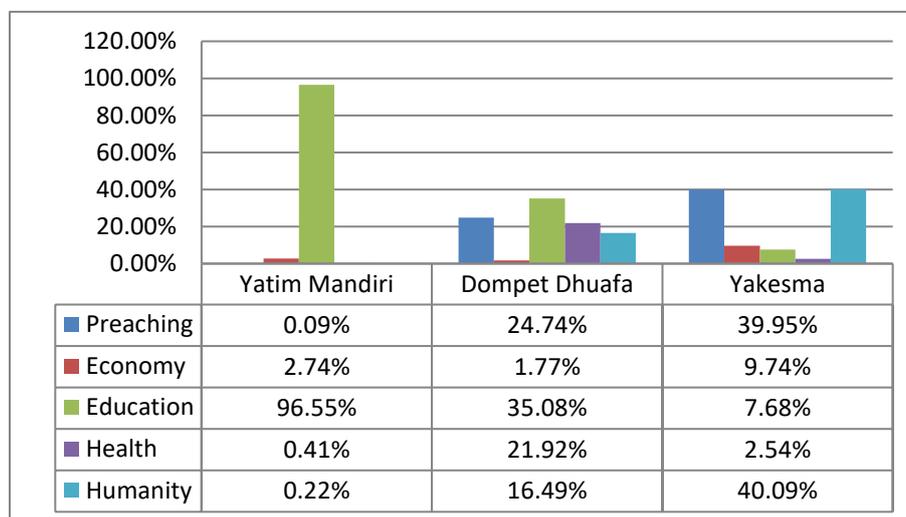
**Figure 4: Percentage of ZISWAF Collection Sources in 2018-2019 Based on the Type of Donation**

Figure 4 shows the percentage of ZISWAF collection in Palembang City in 2018-2019. Yatim Mandiri, the largest ZISWAF collection came from infaq and sodaqoh by 79,68%, while those from zakat were 13,55% and only 6,72% came from wakaf. Dompot Dhuafa 57,70% of ZISWAF collection came from infaq and sodaqoh, while 33,07% came from zakat and 9,23% came from wakaf. Yakesma, collection of ZISWAF only came from two types, namely 80% came from infaq and sodaqoh and 20% came from zakat.

It can be seen that the percentage of wakaf collection in the three LAZ is still very small. This is because LAZ in Palembang City still focuses on ZIS collection, while wakaf collection is still an additional source.

### ZIS Distribution by Program

ZIS distribution can be divided into five categories, namely preaching programs (*dakwah*), productive economy, education, health and social humanity. The graph below shows the percentage of distribution based on the program calculated by comparing the distribution ratio of each program with the total disbursement for that year.



Source: data processed

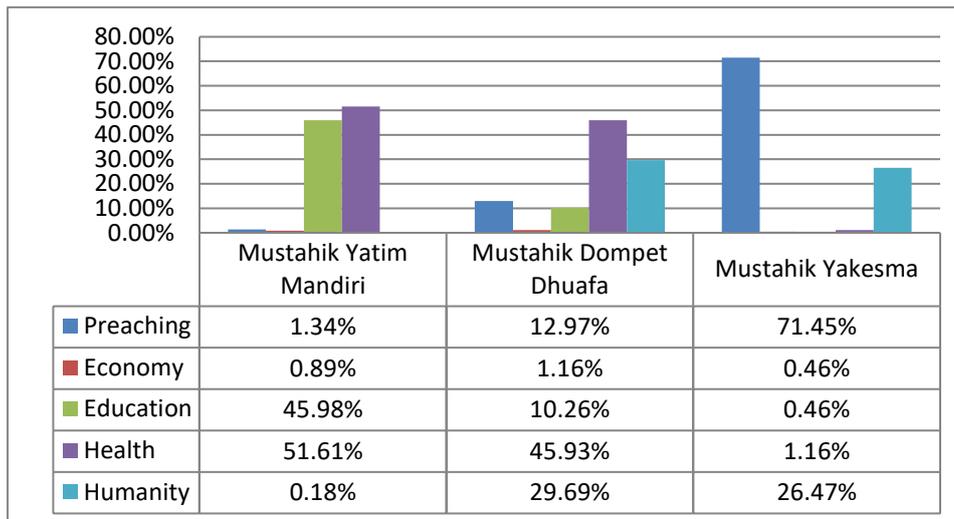
**Figure 5: The Percentage of ZIS Distribution by Program**

Figure 5 shows Yatim Mandiri very focused on distributing almost all ZIS funds to education programs by 91,55% of distribution, this LAZ does have special priority for educational programs. Dompot Dhuafa distributes ZIS almost evenly in all programs, except for economic programs, which the percentage is still very small. Yakesma distributes a lot of ZIS in preaching and humanitarian programs.

In general, LAZ distribution in Palembang City is most dominated by educational programs with an average percentage of distribution of 32,18%.

### Number of Mustahik by Type of Program

Among the three LAZ, Dompot Dhuafa has the highest number of *mustahik* by 3.7533 people, Yakesma which has only been established for about three years, has had *mustahik* of 3.026 people. Yatim Mandiri has a total of 2.240 *mustahik* people. The graph below presents the percentage of the number of *mustahik* by type of program



Source: data processed

**Figure 6: Number of Mustahik by Type of Program**

Figure 6 shows Yatim Mandiri has the most absorbed *mustahik* in health and education programs, while for preaching, economy and humanitarian programs it has a very small percentage. Dompot Dhuafa has *mustahik* that most of them are absorbed in health and humanitarian programs, some are absorbed in preaching and health programs, and for economic programs the percentage is very small. Yakesma has the most absorbed *mustahik* in the preaching program, a small portion in humanitarian programs, while for health, economic and education programs the percentage is very small. Yakesma does focus on distributing preaching programs.

In general, the number of *mustahik* in Palembang City is mostly absorbed in health and education programs, where the average number of *mustahik* for health programs is 385 people and the average number of *mustahik* for education programs is 343 people.

### Descriptive Statistics of Input and Output of ZISWAF Collection Characteristics by LAZ in Palembang City

In analyzing the characteristics of the ZISWAF collection at LAZ in Palembang City, the authors use two input variables and three output variables. The input variable consists of the amount of *amil* and operating expenses. While the output variable consists of ZISWAF collection, ZISWAF distribution and the number of *muzakki*. The table below shows the descriptive statistics of the five research variables.

**Table 1: Descriptive Statistics of ZISWAF and LAZ Characteristics**

Year	Descriptive Statistics	Numbers of Amil	Operating Cost (Rp)	ZISWAF Collection (Rp)	ZISWAF Distribution (Rp)	Numbers of Muzakki
2018	Mean	9.67	153,136,206	2,757,264,931	1,347,908,871	1,486
	Min	5.00	30,000,000	2,090,864,056	300,000,000	486
	Max	13.00	298,838,262	3,578,217,860	2,509,514,065	2,372
2019	Deviation Standard	4.16	135,832,308	755,625,627	1,109,136,259	948
	Mean	11.00	159,155,006	3,495,069,117	1,765,569,759	2,300
	Min	7.00	31,000,000	2,947,983,898	320,000,000	1,800
	Max	13.00	305,709,368	4,543,689,070	3,180,588,649	2,732
	Deviation Standard	3.46	138,275,853	908,417,066	1,430,539,014	470



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Source: data processed

Table 1 describes descriptive statistics of LAZ in Palembang City in 2018 and 2019. The mean (average) shows the average value of each variable in that year. Min and max are the minimum and maximum values of each variable in that year. Meanwhile, the standard deviation shows the variation of the data, the higher the standard deviation value, the farther the average distance of each data unit is to the average.

In general, each input variable and output variable experienced an increase from 2018 to 2019. Only a few variables remained, experienced a decrease or experienced a significant increase.

In the variable numbers of *amil*, the max value is fixed in 13 people, while the standard deviation has decreased from 4,16 in 2018 to 3,46 in 2019. The decreasing standard deviation indicates that the variation in each data unit is closer distance to the average. This is because there was no significant addition of *amil* at the three LAZ from 2018 to 2019.

In the variable numbers of *muzakki*, the min value has increased significantly, by 486 people in 2018, then increased to 1.800 people in 2019. This is due to the addition of a large number of *muzakki* at Yakesma in 2019. Standard deviation has decreased quite significantly, from 948 in 2018 decreased to 470 in 2019. This is because there is no significant increase in the number of *amil* for Yatim Mandiri and Dompot Dhuafa.

## 5. CONCLUSION

From the research that has been carried out, the authors conclude that:

1. *Muzakki* of ZISWAF in Palembang City are still dominated by the individuals/general public. LAZ as *amil* in zakat institutions in collecting ZISWAF tends to be oriented towards individual donors. There are already several LAZ that have partnered with BUMN (government company) and private companies, but the portion is still small. In fact, the potential for collecting zakat from companies is greater.
2. The collection of funds carried out by LAZ in Palembang City is still dominated by *infaq* and *sodaqoh*. Meanwhile, the portions of zakat and wakaf are very small. Whereas wakaf funds have the potential to improve the welfare of mustahik in the long term through the improvement and development of facilities and infrastructure for productive economic activities and education for the poor.
3. The highest ZISWAF distribution in Palembang City is in the education program.
4. *Mustahik* in Palembang City is mostly absorbed in health and education programs.
5. The number of *amil* in LAZ from year to year tends to be the same, while the number of *muzakki* increases rapidly. This creates a huge gap. More *muzakki* means more funds that must be managed by *amil*. Therefore, the number of *amil* should be increased so that ZISWAF fund management runs efficiently and effectively.

## LIMITATION AND STUDY FORWARD

This study uses a small sample because there are only less LAZ in Palembang City which is officially registered at BAZNAS Sumsel. The Covid 19 pandemic also made several LAZ refuse to be interviewed or met. It is expected that future research can cover more LAZ and focus on LAZ's internal performance using DEA or SFA analysis techniques.

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## FINANCIAL BEHAVIOR DURING THE PANDEMIC (STUDY CASE OF HOUSEWIVES IN PALEMBANG CITY)

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### Abstract

This research is attended to see the effect of age, knowledge, financial attitude, household income, education and employment the housewife in Palembang City. The data used is primary data in the number of 310 housewife in Palembang. Using multivariate analysis with multiple regression equations. Data collection techniques using questionnaire and interviews. This research is attended to see the effect of age, knowledge, financial attitude, household income, education and employment the housewife in Palembang City. The data used is primary data in the number of 310 housewife in Palembang. Using multivariate analysis with multiple regression equations. Data collection techniques using questionnaire and interviews. The age of the housewife has significantly affected the performance of financial literacy activities, during the pandemic. Housewives knowledge of financial literacy does not significantly affect the application of financial literacy. Financial attituded housewives do not significantly affect the implementation of financial literacy, housewives who already have the ability to manage finance in the pandemic, can do well financial management. Income revenues do not significantly affect monetary literacy during the pandemic, because goverments make policies against households by providing benefits to low income communities and thus both purchasing and non credit. Education significantly affects the application of financial literacy during the pandemic. The work of a housewife has significant positive impact on the application of financial literacy in the extended period.

**Keywords:** *Financial behavior, Housewives, Pandemic, Palembang City*

### 1. INTRODUCTION

Indonesia is one of the countries infected by the CoronaVirus (Covid-19), the Government has reported 4.432 new cases of Covid-19 as of October 22,2020. The total number of confirmed cases has 377.541 cases since the Corona virus is endemic in Indonesia (Sri,2020).

Finance Minister Sri Mulyani Indrawati said that there were four sectors the most depressed due to the corona virus or Covid-19 are households, micro small and medium enterprises (UMKM), corporations and financial sector. It is also predicted that economic growth will experience a contraction. Affected by this is the household sector, which we predicted will significant sdecline in consumption, because the people no longer have activities outside. So, the purchasing power also decreases. Not only that, the household sector is also threatened with losing income because they cannot work to satisfy their basic needs, especially for poor and vulnerable families in the informal sector (Saubani,2020).

The large scale social restrictions (PSBB) caused by the Covid-19 had a direct impact on business performance, so force many company to massive termination of employment (PHK). Based on data from the Ministry of Manpower, until June 2020 ther are at least of3.05 million workers in Indonesia who lost their jobs caused by Covid-19. ( Tempo, 2020 in Nurul,2020) .

Economic difficulties during the Covid-19 were also used by illegal online lending business, that targetting people who need money to fulfill basic needs then charge high interest with a short loan term (Kompas, 2020 in Nurul).

In conditions, it is important to be able manage finances wisely. According to Martha, managing your finances in pandemic such as living, saving, and playing. Savings can also be made during activities at home by optimize information technology. The thing that cannot be forgotten in financial management is debt. Always keep your money for pay debt and the good debt portion is only 30 percent of total



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income. Financial management of emergency fund allocations of 10 percent of total income, 20 percent for saving, 30 percent for debt and 40 percent for daily needs (Artha,2020).

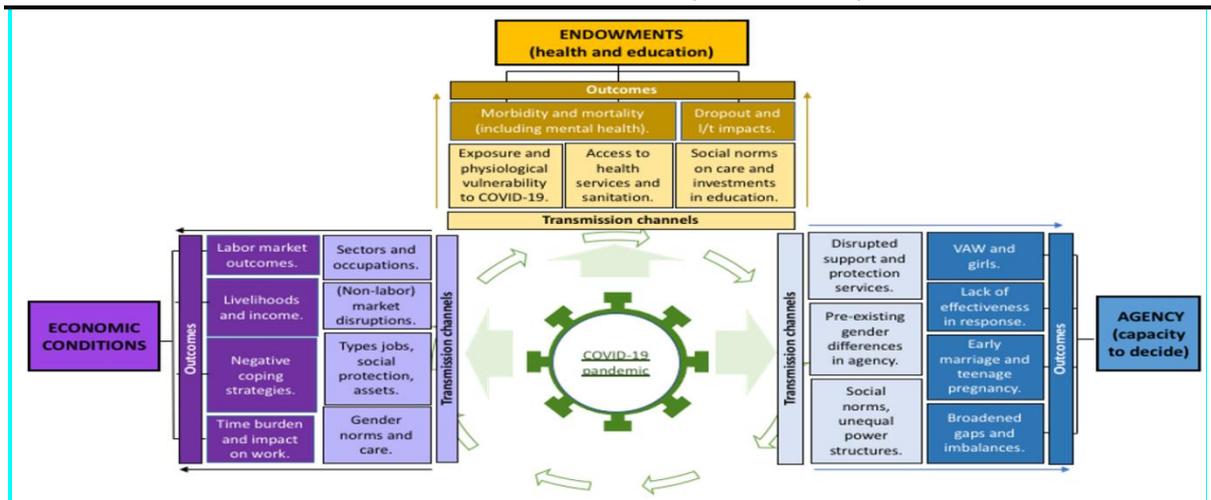
In Indonesia, decision making positions in families and communities are mostly still in men in a variety of ways, including domestic decisions (Qibtiyah, etc.,2020). Among other things, women's role in domestic economic activities is a pervasive phenomenon in society for economic reasons. As women's education levels improved, women's quality of life improved, with an increased gender equality in all fields of development (OJK,2020).

According to the third national survey of OJK literacy and financial inclusion (snlik) this year, there are positive results. Women's literacy and financial inclusion rates, particularly Indonesia's housewife, are increasing. The financial literacy index is at 38.03 percent and the financial inclusion index is 76.19 percent. Literacy increased by 8.33 percent, and increased financial inclusion by 8.39 percent. Women are also more likely to work independently than men in developing countries and therefore need greater access to formal financial services (Demirguc-Kunt, Klapper and Singer 2013 in Magelang Ekspres,2019). Financial literacy can be defined as knowledge and understanding of financial services and other financial services products as well as the ability to make effective decisions related to both the financial aspects and the financial services product available in the market (Wulandari, 2020).

According to Indonesia's social cultural construction, decision making positions in families and communities are still largely in men in a variety of ways, including household decisions (Qibtiyah,dkk,2020). Among other things,wome's role in domestic economic activities is a pervasive phenomenon in society for economic reasons. As women's education level increased, women's quality of life improved, following an increase in gender equality across the field of development (OJK,2020).

According to the result of research by Wulandari, in the year 2020, the Indonesian women's financial literacy needs to be continued, both through the formal and through the informal sector. Women are expected to be of increasing strength and to contribute more and more to the increase in the welfare of the family as well as that of the nation. According to data from Otoritas Jasa Keuangan (OJK) that was released some time ago the Indonesian women's financial literacy rate is now reaching 25,69 percent, while the financial literacy rate is of the men 33,52 percent. Yet, nearly 80 percent of the household finances were managed by women. Increasingly, financial services coupled with advances in the technological sector and a shift in society's demographics structures inevitably require advanced knowledge and understanding around financial aspects as well as those of financial services. The monetary literacy level alone has significant contributions to community economic participation and public economic health. That is the higher the monetary literacy rate of a society, the higher the economic and economic participation of the community.

Research on Caren and Carolina, 2020, today, everyone is experiencing first and the effets of the Covid-19 plague. Outdoor activities such as work, schooling until access to public services is abruptly halted for almost some people. Gender disparity is not new. In fact, gender inequality can expand during and after the pandemic. The ultimate access, economic empowerment, rights and power of opinion in women who have been built for years, will disappear. To formulate gender neutral policies, it is important to understand how the Covid-19 and the economic crisis that follow can affect the outcome of gender as illustrated in the chart below:



**Figure 1: The Three World Bank Gender Working Strategies, Sources:World Bank**

Many of the women who work in the service sector are devastated by the crisis, such as receptionist, domestic assistants, stewardesses, waitresses, makeup artists, and so on. Yet, there were not a few women working in the manufacturing sector, such as Bangladesh, where half the women worked in textile industries and ready-made clothing manufacturers. During the current pandemic, millions of textile workers, who are the majority of women, are set up free of charge. In addition, women working in the informal sector, especially in low income countries, do not have social security such as tunakarya insurance. It is important for women to have social security to support income for their families, especially if a male figure in the family can no longer afford to provide for a living.

Inequality between men and women is also found in homes. Before the plague of Covid-19 was present, women at his nature in society had to take responsibility for the household and keep the household. At times like this, it is more likely that women will have to carry a heavy burden to care for other mattres caused by school closures, parental quarantine and the large number of sick family members. As a result, women have the greatest potential to leave their work, especially for those who can't work long distances.

Financial inclusion not only focuses on the issue of banking accounts in the adult population. Instead, its full financial inclusion is to expand the range of financing or credit access to remote communities across Indonesia (Desy, 2020).

According to the result of the research Esti, 2018, nearly half of Indonesia's total women remain outside the formal financial sector. Even more than that, financial inclusion can contribute to a broader economy. According to women's world banking, women are devoted customers. As business doers, women are more reliable. This is often found in women's business in the retail industry, especially in the online business (in the network). The findings of one online store in Indonesia suggest a dominance of women in online shopping, where the proportion of women is the same 66,28% and female vendor 55,75% (Esti,2020).

Financial attitude, knowledge, skill and financial confidence of an individual have a bearing on his or her financial attitude and behavior. Increased knowledge one has can result in active participation in money related activities as well as in financial behavior that is more positive in an individual. Furthermore, the link between behavior with one's attitude is seen in someone who has a positive attitude in the long run would likely reflect better financial behavior than one who has a short term financial attitude (Atkinson and Messy, 2012). Financial goals are crucial to each person because these financial goals will determine how a person plans and manage his finances to achieve the financial goals



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he wants to achieve. The 2016 survey showed that out of every 100 people in Indonesia, 97 people have financial goals in life.

Household income became a target of the government of the pandemic era. According to the finance ministry, 2020, the government spent Rp 205,20 billion to solve the impact of Covid 19 from the side of the demand for consumption or expenditure. The figure consist of social protection Rp 203,90 billion and the housing incentives of low income communities Rp 1,3 billion. This is to keep people's most vulnerable purchasing power on the decline because of social restrictions and basic services. People who are susceptible to the effects of the Covid-19 to make at least basic need. Forward social protection Rp 203,9 billion for insentif of low income communities.

Judging from educational backgrounds, people with higher educational rates tend to have more diverse product preferences and financial services. They not only have products and financial services alone but they also have products and other financial services such as insurance, pension and mortgages. This is shown in the 2016 survey that a person with a background in education to an elementary school has 1.3 products and financial services only, instead of having 3.9 products and services on average. People with higher education tend to use a wide range of financial products and services to meet their diverse needs.

There are some abstacles that Indonesian women face to support financial inclusion through a savings account. Among them cultural and institutional barries, low levels of literacy and education, still discriminating regulations and practices, time constraints and other factors. The fact that women all over the world are usually home finance managers and they are family patrons (Esti, 2018)

The ability to survive is the key to rapidly recovering from turbulence. For women who are repressive, low-income, domestic violence, and erratic jobs will take more time and effort to recover. Often women's resilience can be seen through their financial freedom. If a woman has control over her finances, access to savings, insurance, security and make decisions of her own and her family, endurance can be achieve even faster (Nadia, 2020).

Minister of Coopertaion and UKM Teten Masduki said at the time of the Covid-19 pandemic wives have come forth as family economic saviors with various kinds of efforts at home. When Covid-19 his wife's growing business and they self it on social media, that's one example of how women today take over revenue (Rusadi,2020).

### 2. LITERATUR REVIEW AND HYPOTHESIS DEVELOPMENT

Quality human resources are one of the factors that influence economic development. In the context of economic development, the quality of human resources needs to be continually enhanced, one of which is associated with financial literacy. Public knowledge about financial literacy is a must in daily life and thus a life skill that each individual must possess in the long run. Organization for Economic Cooperation and Development (OECD,2016) defines financial literacy as knowledge and understanding in making effective financial decisions, increasing financial well being individuals and communities and participating in economics (OJK,2020).

Remund (2020) notes that financial literacy measures one's understanding of financial concepts and has the ability and confidence to manage personal finances through appropriate short term decision making, long term financial planning and nothing economic events and conditions. Huston (2010) says financial literacy includes awareness and knowledge of his financial instruments and apps in his business and life. Carpena et.al (2011) says there are 3 (three) dimensions of financial literacy (1) counting skills, (2) understanding basic finances and (3) attitudes toward financial decisions. Whereas Willis (2008) states that knowledge in the context of financial literacy includes knowledge, education, information about finances and their sources, banking, deposits, credits, insurance and taxes. The financial knowledge that a person possesses then develops into a financial skill, in which the fianncial skill it selfis defined as the ability to apply the financial knowledge he or she has in daily life (Palameta et.al, 2016). Financial skills



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enable a person to make rational and effective decisions related to his or her financial and economic resources (Kurihara, 2013).

Conclusion from another study conducted by Lusardi and Mitchell (2007) indicate that households with low financial literacy tend to plan out their retirement and have low assets. Whereas Adams and Rau (2011) asserts that financial literacy has a leading role in retirement preparation. Research indicates that understanding basic principles of savings, such as compound interest, has a direct influence on financial preparation in the old days. Boon et.al (2011) also found that individuals who have financial literacy are better prepared in their personal financial planning.

Financial attitude, according to Robbins and Judge, 2008 in Budiono, 2014 attitude is a both pleasant and unpleasant expression of objects, individuals and events. One person's financial attitude of financial attitude will help the individual in determining their attitude and behavior in the matter of financial management, personal financial budgeting, or how the individual decisions regarding investments to be made (Budiono, 2014).

Financial knowledge or financial competence is the ability to understand, analyze, and manage finance to make an appropriate financial decision to avoid financial problem (Halim and Astuti, 2015). In addition Volpe, 1998 in Halim and Astuti, 2015, notes that the financial knowledge is an understanding of one's general personal financial knowledge, a knowledge of investing, a knowledge of saving. Thus it can be said that financial knowledge is relevant to how money management works. Financial management is necessary for the individual to be able to make sound financial decisions. Financial management is necessary for the individual to be able to make sound financial decisions. An individual is said to have a low level of knowledge if the answer is answered is contained correctly <50%, and the individual is said to have a high level of knowledge if answered answers properly include >50% (Rita and Santoso, 2015).

Financial behavior is a person's behavior about financial management. Financial behavior is linked to one person's financial responsibilities regarding how they manage their finances. Financial responsibility is a productive process of managing money and assets. Money management is a process that controls and uses financial assets (Hira and Mugenda, 1999 in Wulandari 2016). Additionally, Nababan and Sadalia, 2013 say that financial behavior is linked to how a person treats, manages and uses the financial resources available to them.

The factors that influence the literacy of financial (The Social Research Center,2011) such as age, financial knowledge, financial attitude, house hold income, education and employment. Age is a time force in existence of both living and dead objects. Financial knowledge is the ability to understand, analyze and manage finance to make an appropriate financial decision to avoid financial problems.

Financial attitude it is a state of mind, opinion, a lot of financial. Household income includes income from all household members affected by some of the assumed sources of income. Education is the level of scientific mastery one has about how one's ability to understand things well. Works is an economic activity that one does in order to gain or to help get income or gain.

Judging from educational backgrounds, people with higher educational rates tend to have more diverse product preferences and financial services. They not only have product and financial services alone, but they also have products and other financial services such as insurance, pensions fund, and mortgages.

People with higher education tend to use a wide range of financial products and services to meet their diverse needs. In the second quarter of 2007, the company's net profit in the first half of 2007. It also corresponds to the income level in which the people with the a spending category averages spend as much 3.1 product and financial services while communities with expense categories only have 1.3 product and financial services.



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Well literate certainly have the knowledge and confidence about financial services agencies, including features, benefits and risks, rights and obligations to financial products and services, as well as those of financial services. Well literate is easier to understand the things associated with the financial services industry and have the information to access the financial services industry. This makes it easier to determine financial products and services that are consistent with needs and capabilities in efforts to promote welfare. In addition, well-funded communities tend to have better financial management ability in support of their financial well-being. Thus, there will be a well defined and globalized society that will ultimately support economic development (OJK, 2020)

The factors that influence financial literacy are age, financial knowledge, financial attitude, household income, education and employment (The social research center, 2011). Based on research by OJK in 2013, the implementation of education in order to improve public finance is needed, the level of financial literacy of the Indonesian population is divided into four parts, such as well literate (21.84%), sufficient literate (75.69%), less literate (2.06%) and not literate (0.41%). Well literate 21.84% which means that out of every 100 resident only about 22 fall into the well categories. Indeedly people's money can expect an increase in 2016 about 29.7% from 21.8% in 2013

Sufficient literate has a knowledge and confidence of social financial services and financial services, including features, benefit and risks, the rights and debts of financial products and services. Less literate only have knowledge of financial services, products and financial services. Not literate have no knowledge and confidence in financial services and products and financial services and have no skills in using financial products and services.

In Indonesia, the management of household finances is generally female. Based on Kompas, 2018, Indonesian women's financial literacy is actually lower than that of men. His research suggest that 18.84% women have sufficient financial understanding, while men are of the size 24.87%. According to OJK 2013 in Kompas.com, 2018, 56.65% women in Indonesia already know how to use the right money, while the male reach 62.78%. Hence, it is essential to improve women's financial literacy in order to better use the home finances (Komalasari and Ganiarto, 2019).

The Indonesian government has issued a number of policies to solve the Covid-19 pandemic, like social and physical distancing policies, work from home and study from home. This policy has had a variety of distinctive effect on women in the context of the women's position in the family and as working women. World Economic Forum, 2020 states that while the number of deaths of men is higher than that of women in the Covid-19 case, women are higher in their social and economic vulnerability. This is because the number of women as health workers is greater, are responsible as child care and is under double the burden of pandemics. Meanwhile, in Indonesia's social cultural variety of ways, including domestic decisions (Qibtiyah, dkk, 2020).

The national monetary literacy, 2019 survey showed that gender inclusion and monetary literacy rates are still lower than those of men. Identical women's quarterly reports on non economic activities, such as home and child. However, as society grew more and more complex, women became more active in economic and public activities. Among other things, women's role in domestic economic activities is a pervasive phenomenon in society for economic reasons. As women's education level improved, women's quality of life improved, with an increased gender quality in all fields of development (OJK, 2020).

Nababan and Sadalia, 2013 say also that individuals with responsible financial behavior have responsibility to be effective in their use of money such as budgeting, saving money and controlling, spending, investing and keeping of the debt on time.

The financial inclusion of product development and financial services. The development of these products and financial services is one of the efforts to increase access to society through availability of products and financial services suited to public skills and needs. In its development, efforts to extend financial inclusion not only to the development of financial services but also to include the four elements



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of financial inclusion, the availability of financial services and products, the use of financial services and services, and the improvement of both the quality of financial use and services as well as the quality of the product use and the service of the financial services themselves. This is supported by several definitions of financial inclusion from multiple sources. Sarma (2008) defines financial inclusion as a process that ensures ease of access, availability and use of formal financial system by communities as economic members. Consultative Group to Assist the Poor (CGAP, 2016) explain financial inclusion as access to households and businesses effective use of the products and services. Such financial products and services must be available continuously and well regulated.

Financial literacy concepts in world financial literacy strategies, such changes being a form of alignment with the financial well being. Financial well being is a state in which a person has been able to meet his current and future financial obligations, be prepared for future financial needs, and be able to make choices that he or she can enjoy in life (CFPB, 2015). Barclays (2014) explain that the financial well being is the condition and feeling of a person who feels financially secure and healthy for both the present and the future. Joo (2008) defines personal financial wellness as a desirable financial health status, and as a comprehensive, multidimensional concept, which includes financial satisfaction, the purpose of financial conditions, financial attitudes and behavior and unquantifiable behavior from a single measurement.

The national monetary literacy survey of OJK in 2013 reflected a close relationship between financial literacy and a person's ability to benefit from products and services. Surveys indicate that the higher one's financial literacy, the greater the level of utilization of products and services. Statistic testing using data based on the national survey of literacy and financial inclusion in 2016, is also a positive correlation between financial literacy and financial inclusion to the finance services industry.

### 3. RESEARCH METHODOLOGY

The research subject is the housewife in Palembang city, using the free variables of age, financial knowledge, financial attitudes, financial revenues, income, education and employment. Variable is financial knowledge of financial literacy. The data used is primary data in the number of 310 housewife in Palembang. Using multivariate analysis with multiple regression equations. Data collection techniques using questionnaire and interviews.

### 4. RESULT AND DISCUSSION

The data used is valid and confidential. Valid as the significance of 0,01 seen from both directions, while items can be seen from multiple free range and associated to have fixed connections of 0.7 based on regression linear data (table 1) which display large coefficient and constant in any variable used, high standard error and also high significance.

Table 1 also shows a number of samples used in research,  $R^2$  drawing large numbers to explain whether the data used in research is mine to do research, the massive F value of test that can describe the influence of the whole variable over the bound variables and also the significance of the F test.

**Table1: Multiple Regression Result**

Variable	Coefficient	Std.Error	Prob.
Constanta	8.021	1.687	0.000
Age	0.696	0.069	0.000
Knowledge	-0.029	0.052	0.580
<i>Financial Attituted</i>	-0.072	0,055	0.191
<i>Household Income</i>	0.064	0.043	0.139
<i>Education</i>	-0,205	0,078	0,009
<i>Employment</i>	0,337	0.036	0,000
N	310		



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R <sup>2</sup>	0.656
F-Statistic	38.083
Prob (F-Statistic)	0.000

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Based on table 1, the 8.021 constants that describe, if not using the six free variables, the value of the variable is bound at 8.021. This illustrates that there are still other factors that are not used in the study. The coefficient value of 0.696 age, which illustrates the impact of literacy activities. The age of the housewife has significantly affected the performance of financial literacy activities, during the pandemic. Since 2016, OJK has implemented a need for verrelationship education with the benefits and risks of digital financial services for youth groups 10 to 24 and adults 25 to 34. Improved financial literacy in youth and adult age groups, will imbasa to the product of financial inclusion used during the pandemic. Possession of banking accounts in the adult population and credit or loans during the pandemic. This will require increased digital infrastructure, which will lead to increased financial literacy and implementation of domestic financial inclusion through digital use.

Knowledge has an efficient -0.029 where any reaction of mother's home knowledge of financial literacy in the pandemic age will decrease maternal credibility in the financial age of the pandemic. A mother knowledge of financial literacy does not significantly affect the application of financial literacy. This is because increased home knowledge can result in active participation in financial related activities, as well as more positive financial behavior. Moreover, the relationship between behavior and one's attitude is seen in someone who has a positive attitude in the long run is likely to reflect better financial behavior than one who has a short term financial attitude. In the traditional period, housewives will harness financial literacy skills by performing online sales so banking activities such as savings would go into decline because it was used in advance to conduct sales activities. In the short term the housewife performs the production process and in the long run the household will revitalize her savings ability.

Financial attituded has a coefficient value of -0.072, where any increased financial attituded homemaker during the pandemic will decrease the knowledge, skill and financial confidence an individual has over his or her financial behavior. Financial attituded housewives do not significantly affect the implementation of financial literacy, housewives who already have the ability to manage finance in the pandemic, can do well financial management. The received aid was not used for saving. Housewives during pandemics can become economic drivers, where aid provided by governments can be used to accomplish the production and production of products that people need.

The coefficient value of income is 0.064 represents household income during the pandemic will be increasing toward the implementation of financial literacy. Income revenues do not significantly affect monetary literacy during the pandemic, because governments make policies against households by providing benefits to low income communities and thus both purchasing and non credit. The government also provides an investment in real estate credits, which allows credit payments to be kept running. Housing investment is one of the applications of financial literacy.

Education with a coefficient value of -0.025 in which increasingly advanced home education lowers its attitude in the implementation of financial literacy at the pandemic. Home education significantly affects the application of financial literacy during the pandemic. The financial freedoms that housewives do in applying financial literacy become the basis for their resilience to financial management. In the future, a housewife could do financial management, could make use of banking activities, pawnshop or retirement.

Employment with 0.337 coefficient grades suggests increasing maternal employment will enhance the application of monetary literacy. The work of a housewife has significant positive impact on the application of financial literacy in the extended period. This is because the roles of the housewife as the economic support of the family are very high compared to the men. The large number of households that are domesticated during the depression will keep the homemakers from working hard to keep down



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the revenues for the household and to assist with the household's compounded head income. Housewives can tap into previously acquired skill to produce various UMKM products.

### 5. CONCLUSION

According to Wulandari, 2020 there are several reasons why financial literacy is so important to women. As much as 80 percent of the family's financial affairs are managed by women. Hence, for better or worse, household finances are dependent on the degree to which women are financially literate. When household finance management can be exercised properly, it will affect the level of family harmony and family well-being. Harmony and family welfare in turn will contribute to harmony and well being at state level.

First, studies show that women live an average of five years longer than male's. The risk is that women are required to be more independent, including financially, when their mates first leave them. Knowledge and understanding surrounding the financial sector and the financial service products as well as the ability to make effective decisions associated with the monetary aspect as well as monetary services products can become important capital for women to become financially independent.

Second, in a sense of knowledge, as both mother and educator for her children. As mothers, women have great influence for the implanting of values and knowledge for their children. By being well informed on financial literacy, women can provide their sons and daughters at an early age with knowledge and understanding about financial sectors and financial service products as well as knowledge of how to manage finance effectively and efficiently.

Third, from the financial attitude toward information technology progress and communication, there are fewer women involved in business and investment. Of course, to promote both business success and investment, they need good knowledge and understanding about financial services.

Fourth, on the side of household income, women tend to have peculiar routine needs to shore up their image, appearance and confidence. Call the need for hair, nails, facial care, the need for clothing and cosmetics. All of this requires a special budget, of course. Good financial literacy enables women to develop a budget for the typical needs without having to interface with the spending in other posts.

Fifth, from the side of education in addition to the formal education path, increased financial literacy efforts for women can also be done continuously through informal educational channels, such as through training, short courses and workshops, which target the various female groups in the community. Incorporate knowledge about finances and financial service products through the curriculum path. By applying an integrative curriculum method, they can learn financial literacy through a number of subjects such as language, economics, mathematics, science and information and communications (TIK).

According to Rahma (2020), Joko Widodo said the target of the financial inclusion rate in Indonesia should be reached 90 percent at 2023-2024. Through five prepared stages, prioritizing, developing the strategic planning cycle of education and literacy. Considering that Indonesia is still faced with the Covid-19 pandemic. So education and literacy planning will be arranged according to the situation in each area. Second, developing a digital education. Among them developed massive open online finance education (MOOC), educate through social media @sikapiuangmu, programmable and measurable. Third, reinforcing literacy and community finance education. Engaging teachers in boarding schools in the socialization process to doing a massive workshop with the Syariah service industry (IJK). Fourth, strengthen the education infrastructure through a revision of the Indonesia financial literacy strategy (SNLKI) to the new version of 2020, formulating joint finance literacy, the production of second rate, middle-school, and high school accounting materials. Also branch one activity and 10 km care. Fifth, strengthening strategic allocation with stakeholders and communities for more massive education and development. Strategic alliances with the university and strategic alliances with any associated ministry or agency.



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Sixth, from Rahma (2020), member of the board of the education and consumer protection of the financial services authority (OJK), the Corona pandemic has increased poverty and unemployment. According to data from the ministry of finance which shows that the poverty rate grew by 1.89 million to 4.86 million and unemployment increased by 2.92 million to 5.23 million. The implication is that, of this negative growth, many of the marginalized were suddenly reduced to poverty by unemployment and were unprepared for this emergency. They don't have any money just in case.

The government's image of social protection is the hope family program (PKH) Rp 37.4 trillion, sembako Rp 43.6 trillion and electricity discounts for 450 va and 900 va Rp 6.9 trillion, social assistance (Bansos) non Jabodetabek Rp 32.4 trillion, Bansos Jabodetabek Rp6.8 trillion, direct cash assistance (BLT) from the village of Rp 31,8 trillion and Rp 20 trillion.

### LIMITATION AND STUDY FORWARD

This researcher has a limited scope only housewives who are in Palembang city, not including all housewives, the results of the study describe the national scope

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## INNOVATION CAPABILITY ON LABOR PRODUCTIVITY (A LITERATURE REVIEW)

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### Abstract

This article reviews the relationship between innovation capabilities and labor productivity to see how the labor's ability to innovate to increase their productivity as an employees of an organization. In this limited literature review, several studies of innovation and productivity show that innovation leads to better performance and has a complementary relationship, innovation is also widely recognized as a key element of successful labor productivity and has a positive impact and significant. The Chasanah's (2008) study found that empowerment is considered capable of fostering and increasing employee creativity to produce a quality product or to provide satisfactory service. Creative employees also contribute greatly to the creation of product innovation in an organization. Therefore, empowerment is seen to be an important part of ensuring the survival of the organization in a competitive environment. In this empirical research study, several studies were found on labor productivity which is influenced by innovation capabilities. This empirical study shows the positive effect of innovation capability on labor productivity.

**Keywords:** *Innovation Capibility, Labor Productivity*

### 1. INTRODUCTION

Increased productivity is a necessity to drive the economy in a miracle economic situation, especially in a downturn in economic conditions (Darius Tirtosuharto in Berita Satu, 2017). In this latter condition, policies to maintain productivity so as not to drop sharply, it is necessary to carry out various policies, including implementing innovation policies through capacity building or known as increasing innovation capabilities. In the business world, this innovation capability enhances through the development of knowledge, experience, skills including the technological skills of the workforce that supports the goals of the company. In other words, human resource development capability is the ability of an organization to develop and enhance the technical and managerial capabilities of its human resources.

Productivity is important for companies in facing increasingly competition and it can be increased by human resources (HR) support in motivating employees to be able to work more productively. The success of the company is influenced by the human resources who work in the company. The more productive the employees, the higher achievement of the company. Siyamtinah, et al. (2011) entitled "Performance Improvement Model Through Innovation Capabilities in SMEs in Semarang" found that optimal innovation capability requires efforts to improve other internal factors, namely human resource capability. Human resource development capability is the ability of an organization to develop and improve the technical and managerial capabilities of its human resources.

Based on research results as well as arguments regarding the effect of innovation capabilities on the quality of workers or labor, the authors argue that further research is needed, namely literature studies relating to this matter. This is due to the factors where and when the research was carried out, of course, provided different information at each time. In addition, the rapid development of human resources (HR) and technology will certainly provide new nuances in every field, be it organizations or companies. This literature study is entitled " Innovation Capabilities on Labor Productivity ". The authors want to know clearly how innovation capabilities can affect the productivity of labor and hope this article can be a reference for other researchers.



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## 2. LITERATURE REVIEW

A set of expertise that companies use in formulating and implementing an innovation strategy that involves the creation, existence, and modification of all resources used for innovation (Dogan, 2017) and innovation capability is the ability of a company or organization in developing products or services in new markets, through the alignment of a strategic innovation orientation with innovative processes and behavior (Lawson & Samson, 2001).

A linkage between innovation and labor productivity have been conduct, as following: Rita (2010) said the Effect of Innovation Strategies on the Operational Performance of Manufacturing Companies in Sulawesi Found that 4 of proposed hypotheses, only 3 hypotheses are supported. The three hypotheses are process innovation, product innovation, and innovation implementation which have a positive and significant effect on the company's operational performance. Meanwhile, leadership orientation does not have a significant effect on the company's operational performance. The Dominant Factors Affecting Labor Productivity in the EFC Project (Case Study at PT. X) is the less skill of the workers in drawing and engineering program design (Visie Fairy Vradika, 2008).

Other research told that civil servant productivity, such as: Suryanto (2012) said if civil servant in up level from standard so it can be sure that will support organisation productivity. Emilia Dano (2013), have know that innovation Village and Urban Village Government Community Empowerment Bodies at Sulawesi Selatan province classified as high category, in terms of internal factors: changes in organizational strategy, changes in employment, the presence of new equipment and equipment, attitudes, external factors: government regulations and regulations, technological developments, economic changes as well as employee work productivity at the Empowerment Agency Office Village and Sub-District Government Communities in South Sulawesi Province belong to the high category in terms of ability, increasing work results, work morale, self-development, quality, and efficiency. The hypothesis testing show that there is a significant relations between innovation and labor productivity of employees of the Community Empowerment Agency for Village and Government of South Sulawesi Province with a moderate level of influence. So, the hypothesis of this study is: Innovation capability have positive influence to labor productivity.

## 3. RESEARCH METHODOLOGY

Sample of this study are from literature which have relation with innovation capability and worker or labor productivity. The sources and methods of data collection with data in libraries, reading, taking notes, and processing research materials.

## 4. RESULT AND DISCUSSION

### Innovation

Innovation involves the exploitation of new ideas. Innovation is a term that may refer to processes, attributes or end results. There is a difference between innovation and invention. Innovation does not have to be equated with discovery; an invention does not necessarily lead to innovation (Edi Suroso and Yudi Aziz, 2015: 387). Innovation can be described as the process of taking inventions into use, launch them on the market and capturing value from them. Commonalty, innovations are often mentioned as new a product, but an innovation can also be changes in how a product or service is delivered. A product can be put in a new context of promotion and be called an innovation (Bäckman dan Ellmarker, 2017: 1). An important distiction is normally made between invention and innovation. Invention is the first occurrence of an idea for a new product or process, while innovation is the first attempt to carry it out into practice (Freeman, 2018).

Meyer and Garg (2005);Fontana (2011) find that Innovation is defined as an economically and socially successful introduction of a new way or a new combination of existing ways in transforming inputs into outputs that result in changes in the value or price relationship offered to the users. Different with Bassi Padilha et al (2017) which states that innovation has been given different meanings based on the contexts in which they are defined; The Oslo Manual (OECD, 2005) defines innovation as the implementation of product, a process, a marketing method, and organizational



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method, in a working arrangement or business practice; Trott (2012) defines innovation in the manufacturing context as management activities that are involved in generating ideas, manufacturing, technology development, new marketing and improved manufacturing process, equipment or product.

Innovation has been put forward, some of the opinions summarized in "the Determinants of Technological Innovation: Current Research Trends and Future Prospects" by Vangelis Souitaris (2003) put categories or types of innovation as follows:

- a. Nature, definition Nature and measurement of innovation itself. The determinants can be differentiated by the nature of innovation, for example high-cost vs low-cost innovation, simple vs complicated innovation and incremental vs radical innovation. Example, 'incremental innovation' may be enhanced by a decentralized structure, 'radical' innovation requires a more centralized structure with particular emphasis on decision-making and a higher level of support and involvement from top management.
- b. Measurement of the determinants of innovation includes variables measuring factors such as the size of the firm, number of graduates, size of innovation budget, etc. The above are straightforward and easy-to-measure variables, with highly reliable measurements. They are also easily transferable over different studies. For instance, the number (or the logarithm) of personnel is a generally standardized measure of a firm's size.

Edi Suroso and Yudi Aziz (2015: 388) explain the typology of innovation as in the following table:

**Table 1: The Mainstreams of Innovation Typologies**

Mainstreams of Innovation typology	Key Characteristics	Prominent Authors
Radical versus Incremental Innovation	<ul style="list-style-type: none"> <li>- Radical innovation are the ones that are new to the world and are exceptionally different from existing products and services.</li> <li>- Incremental Innovation involves revisions or alterations to existing products or service.</li> </ul>	Abrunhosa and E Sa (2008), Lin and Chen (2007), Prajogo and Sohal (2003), Forsman and Temel (2011).
Technological versus Marketing innovation	<ul style="list-style-type: none"> <li>- Technological innovation is the adoption of new technologies that are incorporated into processes or product</li> <li>- Marketing innovation is associated with internal processes supporting the delivery of a service or product</li> </ul>	Rosenbusch (2011), Damanpour et al (2009), Auken et al (2008), Bon and Mustafa (2013).
Product versus process innovation	<ul style="list-style-type: none"> <li>- Product innovation are creating a new or improved good or service</li> <li>- Process Innovation are focuses on improving the effectiveness and efficiency of production</li> </ul>	Gunday et al (2011), Singh and Smith (2004), Prajogo and Sohal (2006)

### Innovation Capability

Benny and Arif (2017: 52) in their article "Intellectual Capital-Based Innovation Capability Dashboard (IC): Conceptual Framework" put forward the opinion of experts regarding the definition or testing of innovation capability (innovation capability) as follows: R. Burgelman, et al. (2001) stated that innovation capability is a comprehensive set of characteristics of a company or organization that can be used to facilitate and support its innovation strategy. The set of characteristics consists of various competencies that function as assets, capital, and human resources specifically for companies in carrying out innovation activities. Peteraf (1993) states that innovation capability is a heterogeneous portfolio of company resources and plays an important role in influencing the variability of the level of corporate financial control. The ability to innovate a company can be influenced by various factors (M. Sauna, and J. Ukko, 2014).



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Previous studies have tried to classify the factors that influence innovation capabilities: classification based on assets: scientific research assets, process innovation assets, product innovation assets and esthetic design assets (J.F. Christensen, 1995). Based on organizational functions: learning capabilities, R&D capabilities, resource allocation capabilities, manufacturing capabilities, marketing capabilities, organizational capabilities, and strategic planning capabilities (J. Guan, N.Ma, 2003); based on knowledge: structural capital, and leadership capital (T. Stewart, 1997), and based on the form of collaboration: collaboration within departments, collaboration in business functions, collaboration within companies, collaboration in groups, collaboration with 3rd parties, collaboration with suppliers, collaboration with customers / partners, and collaboration with customers from customers (J. Wailin, et.al., 2011).

Furthermore, Monika Inków (2020) has summarized various reviews on innovation capabilities in a book entitled "Organizational innovation capability as a result of knowledge management processes a literature review". Here are some experts who put this forward. Stawasz (2014) that the innovation capability has an impact on both long and short-term results of organizations, and thus also their competitive advantage, however these relationships are mainly the result of the development of dynamic capabilities. It can be stated that in such a system the resources and skills of their transformation create the innovation capabilities that are needed to develop innovations and achieve competitive advantage. Darroch (2005), in turn, stated that an organization that can better manage its knowledge resources will eventually be able to transform into a more innovative company. Therefore, knowledge within an organization must be managed and well promoted to guarantee the effectiveness of innovation (Du Plessis 2007). Reid (2003) knowledge creates an opportunity for an organization to maximize its ability to generate solutions that provide organizations with innovation and allow them to achieve competitive advantage, i.e. to maximize the innovation capability of organizations.

Calantoe et.al. (2002) A learning-oriented organization can increase its innovation capacity in the three ways. Firstly that it is more likely to become involved in innovative activities and to use the latest technologies. Secondly, such an organization will not miss emerging market opportunities because it has the knowledge necessary to anticipate customer needs. Thirdly, an organization that learns may simply have greater innovation capacity than its competitors, which results from the fact that such an organization constantly monitors the activities of competition on the market, and therefore knows their strengths and weaknesses, and also learns not only from their successes but also from their failures, and all this enables such a company to build high innovation capacity.

Yesil and colleagues (2013) showed that as part of the process of sharing knowledge, only the transfer of knowledge within an organization has a positive effect on its innovation capability, while the accumulation of knowledge does not significantly affect that capability. Faroukh and Sohal (2016) came to the opposite conclusions in their research, they stated that only the behaviour of employees in field of knowledge collecting in the process of knowledge sharing has a significant impact on innovation capability. The researchers noted that it is necessary to emphasize the importance of knowledge sharing by the company's management and building an individual culture of knowledge sharing among employees.

Ullah et al. (2017; 2017a) showed that the process of knowledge sharing in general has a great impact on innovation capability, what is more, according to the mentioned researchers, knowledge sharing is the basic activity that an employee can undertake to increase the innovation capacity of an organization and enable it to achieve success. Employees who feel motivated, additionally undergo appropriate training are delighted with activities that are aimed at increasing the innovation capability of the organization. Tekin and Akyol (2019) that sharing knowledge within the organization and implementing knowledge management has no impact on the innovation capability of an organization. It turned out that sharing knowledge is insufficient to build innovation capacity when employees are not completely convinced that the management have provided them with full information, or when information has not been provided in a timely manner.

Table 2 illustrates the definition of innovation capability captured from different authors

**Tabel 2: Definition of Innovation Capability**

Author	Definition
Francis (2005)	An organizational property that underpins an ample flow of multiple, value-creating and novel initiatives.
Akman and Yilmaz (2008)	An important factor that facilitates an innovative organizational culture, capabilities of understanding and responding to the external environment and characteristics of internal promoting activities
Elmqvist and Le Masson (2009)	Consists in generating new ideas and knowledge to take advantage of market opportunities.
Malaysia Productivity Corporation (2009)	The capability to generate new ideas which lead to higher performance, create new opportunities, increase future capacity, technological leadership as well as increased knowledge base through managing technological changes.
Wonglimpiyarat (2010)	The ability to make major improvements and modifications to existing technologies, and to create new technologies.
Laforet (2011)	Availability of resources, collaborative structure and process to solve problems
Withers, Drnevich, and Marino (2011)	The degree to which a firm possesses resources and capabilities presumed necessary for innovation
Ngah and Ibrahim (2011)	A firm's ability to generate knowledge in the form of intellectual property such as a pattern.

Source: Nurdin. 2013.

A common thread can be drawn from this opinion that innovation capabilities are needed in making reforms so that things get better. Something here could be related to leadership or the activities carried out in an organization.

Canh and Bui (2019) suggest that the following research detects the factors that impact the company's innovation ability or the impact of innovation on business effectiveness, which has been published in national and international researchers. The first research to apply econometrics in the company's Research and Development (R&D) activities was the Griliches study in 1979. Griliches (1979) studied production companies and emphasized the importance of investing in the R&D activities of a company. He believed that the innovation capability of a company depended on "technological capital", which was not formed by chance but was the result of 3 main groups of activities, namely: (i) the firm's R&D expenditures; (ii) R&D in universities / research facilities; (iii) Consulting and technology transfer in technology centers. Griliches' (1979) research is supported by subsequent studies from Hagedoom and Cloudt (2003); Tsai, Chuang, and Hsieh (2008). While not denying the role of spending on R&D, Calvo (2000) argues that R&D spending is only part of innovation spending, because innovation is a process from the formulation of ideas to their presentation in products / services valued by customers.

Furthermore, the relationship between innovation capabilities and business effectiveness of firms have been conducted and many new factors were discovered: Avlonitis et al. (1994) found organizational management factors, Erdil (2004) marketing factors, Fell, Hansen, and Becker (2003) emphasized current manufacturing factors and inter-unit interactions, all of which contribute to a firm's overall innovation ability. Romijin and Albaladejo (2002) stated that a firm's innovation capability is primarily measured by its production innovation capability. Internal impact factors include: Manager's qualifications and experience; Staff skills; Expenditures for R&D activities. External impact factors include: strength of the relationship between the members of the value chain; geographical distance between members; Institutional support from administrative bodies.

Wang, Lu, and Chen (2008) use an integrated measure that examines both the input component (impact factor) and the output component (innovation outcome) to evaluate a firm's innovation



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capability: The level of empowerment in decision making, resources for innovation activities, the level of risk acceptance, the willingness to exchange knowledge and new ideas are all very influential on the company's innovation ability. Chuang, Liu, Tsai, and Huang (2010) measure corporate innovation using market, organizational, and R&D capabilities. A company's marketing division is responsible for identifying customer requirements and problems, which are ultimately transferred to the R&D team as input data. The R&D division uses this input data to find products that can meet consumer demands. Thus, the R&D and marketing divisions are directly related to the development of the company's new ideas / products (Artz, Norman, & Hatfield, & Cardinal, 2010; Erdil, 2004). Likewise, the marketing unit can also help the R&D division develop revolutionary products, such as new technologies with large commercial prospects.

### **Labor Productivity**

It is quite interesting to question and it is possible that those are who think that workers have the same meaning as employees, Charles (2002: 3) explains that the question "Is a worker an employee?" may seem like a simple answer on the surface. Furthermore, according to the old 1978 dictionary of American English, "employee" says briefly that an employee is "a person who works for someone else in exchange for financial or other compensation. Based on this definition, an independent contractor will appear to be an employee. However, the legal definition of "employee" refers to more than the salary received by the worker for the services rendered. Black's Law Dictionary defines "employee" as "a person at the service of another person under any rental contract, express or implied, oral or written, over which the employer has the power or right to control and direct the employee in material details of how the work should be done.

Labor, namely a person or group of people who work in a company or organization. Another term for labor or employees is employees or better known as human resources (HR). According to Hidayat, et al. (2018: 52) employee productivity, which is comparing the individual production results of employees with standard production results. Lonnie Golden (2011) in his book entitled "The effect of working time on company productivity and performance: a research synthesis paper" has summarized the various opinions of experts regarding labor productivity as follows: Bloom, et.al. (2009), the association between job flexibility and worker self-assessed performance, employer provision of more or better flexible work practices for employees is associated with significantly higher productivity. It supports the "optimistic" view that globalizing competition can spur higher productivity with such practices, laying the groundwork for a "win-win" situation. However, the positive correlation between higher productivity and superior work/life policies all but disappears when controlling for management practices. That is, work/life practices reflect better management practices and better conditions generally for employees in companies.

Sparks et al., (2001); Hulst (2003); Caruso et al, (2004); Golden et al., (2011), they tend to keep labour productivity below its potential. "Overwork" can refer to the increasing risk that a worker will experience symptoms of fatigue and work stress, which would undermine either the short-term or long-term productivity rate of workers or firms. Those who experience higher levels of self-reported "overwork" report a higher scale of stress and symptoms of depression, and poor health and self-care. Hill, et.al. (2008) giving workers the option to take time off when a family member was sick or to work from home were both associated positively with firms' profits (although job-sharing arrangements actually had a slight negative impact on profits). Profits may be enhanced indirectly if workers value the provision of sick leave so much that they are willing to accept a compensating differential for it, but few employees actually use it. Profits also might be boosted indirectly to the extent that productivity is sustained by the subsequently reduced job dissatisfaction and stress. Workplace flexibility is defined as "the ability of workers to make choices influencing when, where, and for how long they engage in work-related tasks". Its potential benefits for workers improve individual productivity indirectly.

Kelly, et.al (2008) various working time arrangements influence employee productivity, directly or indirectly. Grzywacz, et.al. (2008) From 30 to 50 per cent of observed differences in health indicators



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between workers engaged in flexitime (either alone or combined with compressed workweeks) and those not engaged in a formal arrangement were explained by perceived workplace flexibility. Flexitime in particular was found to be the most powerful contributor to this indirect factor of worker productivity over the longer term. According to Biren Patel, et.al (2017) Performance of labor in building construction is affected by many factors and is usually linked to the performance of Time, Cost and Quality. Therefore, it is important to evaluate factors affecting labor productivity in building construction. Biren, also put forward several expert opinions as arguments to support his opinion, among others:

Project management skills were acceptable as the most important factor that influenced the productivity among the labour such as technology exploration, skill and training, labour organization, project uniqueness and wage trends. Dayakar et al. (2012), concluded important factors affecting labour productivity are quality of site management, material shortage, timely payment of wages, labour experience, misunderstanding between labour and superintendent. Khaled et al. (2013), Their study represented five factors which are most significant in construction labour productivity in Egypt: (1) Labour experience and skills, (2) Incentive programs, (3) Availability of the material and ease of handling, (4) Leadership and competency of construction management (5) Competency of labour supervision. Shashank et al. (2014), grouped factors affecting labour productivity in six different group which are Motivation, Manpower, Material/Equipment, Safety, Managerial, Quality. They said Motivation factor has the highest impact on labour productivity. So they suggested that the construction company should increase labour satisfaction by paying a reasonable salary, developing financial reward or recognition program and improving the living condition on site (Vekaria, 2012).

Next, [s. Ghate et al. (2016) measurement of labour productivity is helpful in saving the time of the project as well as cost of project without hampering the quality of work. Mahesh et al. (2017) found prior knowledge of labour productivity during construction can save money and time. Investments for projects are very high and because of the complexity in construction, various factors can highly affect overall productivity, thus the project can end up adding even more time and money in order to be completed. Biren, et.al 2017: 79) states that major factors affecting labor productivity are low payments, poor construction methods, use of technology / level of mechanization, delay in material delivery etc.

Chad Syverson (2011:239) suggests that productivity is efficiency in production: how much output is obtained from a given set of inputs, it is typically expressed as an output – input ratio. Single-factor productivity measures reflect units of output produced per unit of a particular input. Labor productivity is the most common measure of this type, though occasionally capital or even materials productivity measures are used. Furthermore, he explained that researchers often use a productivity concept that is invariant to the intensity of use of observable factor inputs. This measure is called total factor productivity (TFP) (it is also sometimes called multifactor productivity). Conceptually, TFP differences reflect shifts in the isoquants of a production function: variation in output produced from a fixed set of inputs. Higher-TFP producers will produce greater amounts of output with the same set of observable inputs than lower-TFP businesses and hence, have isoquants that are shifted up and to the right. Factor price variation that drives factor intensity differences does not affect TFP because it induces shifts along isoquants rather than shifts in isoquants.

Hidayat, et al. (2018: 46) states that another definition of productivity is as a level of efficiency in producing goods or services: Productivity describes how to properly use resources in producing goods. Productivity is also defined as: Comparison of price measures for input and yield, the difference between the amount spent and the amount of input expressed in common units. Tarwaka, Bakri and Sudiajeng (quoted by Hidayat, et al. 2018: 46) explain that productivity is a universal concept that creates more goods and services for human life by using limited resources.



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According to Hidayat, et al. (2018: 47) The concept of work productivity can be seen from two dimensions, namely the individual and the organizational. The individual dimension sees productivity in relation to individual personality traits that appear in the form of mental attitudes and contain the meaning of the desires and efforts of individuals who always try to improve their quality of life. The organizational dimension sees productivity in terms of the technical relationship between input and output. Therefore, in this view, the increase in productivity is not only seen from the aspect of quantity, but also from the aspect of quality. Both of these productivity expectations contain certain methods or measurement methods that are practically difficult to do. These difficulties are caused by, firstly, individual personality characteristics are complex, while the second is due to various resource inputs and in different proportions. The same thing was expressed by Mishra. (2013) that increased productivity focuses on: doing "the right thing" (knowing "what 'to produce and distribute) by continuously reviewing and identifying changing customer and community needs Doing the" right thing "(knowing" how to 'produce and distribute) by continuously improving the production and distribution process to produce and deliver goods and services in the most efficient manner.

### **Effect of Innovation Capabilities on Labor Productivity**

Slater, Hult, & Olson (2010) find that innovation capability leads organization to develop innovations continuously to respond the changing market environment. Gloet & Samson (2016), innovation capability embedded with all the strategies, system and structure that support innovation in an organization. Lawson & Samson (2001), Innovation capability is considered as the valuable assets for the firms to provide and sustaining competitive advantage and in the implementation of the entire strategy. It is composed through the main process within the firm. Sen & Egelhoff (2000), The capability of innovation facilitates firms to introduce new product quickly and adopt new systems rather it is important to factor for feeding the on going competition. Adler and Shenbar (1990), innovation capability is defined as (1) the capacity of developing new products satisfying market needs; (2) the capacity of applying appropriate process technologies to produce these new products; (3) the capacity of developing and adopting new products and processing technologies to satisfy future needs; (4) and the capacity to respond the accidental technology activities and unexpected opportunities created by competitors.

Capabilities can be viewed as bundles of routines (Dosi et al., 2000; Winter, 2003; Lewin and Massini, 2004), or more generally practices, that enable firms to combine their resources to efficiently achieve a particular activity (Grant, 1991). Because firms' resources and capabilities are difficult to measure, this area of research remained to a large extent conceptual. But still, the few empirical studies that exist demonstrate a positive effect on firm performance (e.g., Knott and McKelvey, 1999; Lorenzoni and Lipparini, 1999; Galbreath, 2005).

Baldwin and Johnson (1996) also show that more innovative firms place "greater emphasis on management, human resources, marketing, financing, government programs and services, and production efficiencies", and are more successful than less innovative firms. Another study by Kremp and Mairesse (2004) finds that particular knowledge management policies translate into significantly better innovation performance and productivity. These policies are a culture that encourages information and knowledge sharing, employee retention policies, partnering for knowledge acquisition, and implementing written knowledge management rules.

It can be drawn that innovation capability is very important for the continuity of an organization or company, both in the form of products produced and the quality of its leadership. Yang's (2011) said that innovation capability as the potential ability of an organization to position itself in an arena of modernism such as new product development, technology and other advancements that result in competitive advantage over its rivals. In line with Yang's opinion, The researches of Jimenez-jimenez and Sanz-Valle (2011), Allred and Swan (2005), and Wang and Wang (2012) found innovation capability has influence to performance significantly.



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Edlyn Khurotul Aini, David Chen Long Shen, Mochamad Al Musadieq, Siti Ragil Handayani (2013), also provide the same argument that innovation capability has a significant and positive effect on business performance (coefficient = 0.44,  $t = 4.34$ ,  $p < .001$ ). This result is consistent with the Allred and Swan (2005) and Jimenez-jimenez and Sanz-Valle (2011) that innovation capability has a significant direct impact on business performance. It indicates innovation capability plays a critical role in influencing on business performance. The same thing was stated by Brown (1992), Çavuşgil et al (2003), Wolff & Pett (2006), Yam et al., (2004), Calantone et al. (2002) quoted by Alper Ertürk (2012) that innovation capability embraces the formation and development of new ideas, new product development, new manufacturing processes and new services, also indicated that the only way to create a competitive strength for an organization is the capability to innovate. In support of these propositions, many researchers have demonstrated that innovation capability contributes significantly to a company 's performance in ways; such as innovation performance, product and process improvement, innovation rate, and company 's general / quality performance.

Alper Ertürk (2012: 162) said that Organizations have been increasingly searching new ways to enhance their abilities to innovate effectively. Successful innovation for organizations is usually associated with good performance and related to subsequent growth. In an increasingly hostile and continuously changing business environment, innovation capability represents a means of survival, and not just growth. Thus, for the long-term sustainable success of the organization's strategies, managers should try to increase the employees' innovation capability. All types of innovation activity have positive effects on the productivity of firms with respect to non-innovating firms. Further, we find robust evidence for the differential impact of innovation on firm productivity across different innovation types (Burcu, et.al., 2016)

De Jong & Hartog quoted by Salih Yesil and Fikret Sozbilir (2013: 542) explained that innovative work behavior typically includes exploration of opportunities and the generation of new ideas (creativity related behavior), but could also include behavior directed towards implementing change, applying new knowledge or improving processes to enhance personal and / or business performance (implementation of related dimensions of individual work behavior: opportunity exploration, idea generation, championing and application. the characteristics of workforce behavior having the following innovations. Some of the personality characteristics associated with innovation reported in the literature are imaginative, inquisitive, high energy, high desire for autonomy, social rule independence and high self-confidence (Patterson et al., 2009) Ahmed (1998, p.35) also presented some of the personality traits associated with innovation from previous studies in the literature (high valuation of aesthetic qualities in experience, broad interests, attraction to complexity, high energy, independence of judgement, intuition, self-confidence, ability to accommodate opposites, persistence, curiosity, and energy) that can facilitate innovation in the workplace.

Matzler et al. (2011) argued that people with high conscientiousness engage into the effort to document their knowledge in order to share it with others and to contribute to organizational success. They found that conscientiousness is positively related to documentation of knowledge. Kumar & Bakhshi (2010) asserted that conscientiousness reflects strong sense of purpose, self-discipline, dutyfulness, obligation and persistence, leading to hard work. Jessica Day (2016) provides an overview of the characteristics of someone who has innovations such as the following:



### 5. CONCLUSIONS

Innovation is an idea or way to produce a product in the form of goods or services. For example, items that have been modified or changed in shape, size and color for a long time to have a more attractive appearance, thereby increasing seller's income. Changes made to goods can be said to be innovation. Furthermore, services can be in the form of moving an existing system to a new system form (manual to online or technology). Innovation is not a concept of a new idea, new discovery and is not a development of something new, but is a combination of all these processes (Kotler, 2002). So product innovation is a combination of various processes that influence each other (Myers and Marquis (1969).

Innovation is creation (discovery) that focuses on use of resources (people, time, and money) to develop new products, new services, new ways, doing things, and new ways of thinking, it is explained that innovation is the fundamental basis for the competitiveness of companies and nations and a source of progress in development. Companies and nations that continue to innovate will succeed in maintaining their economic sustainability (Ahmed and Shepherd (2010). Meanwhile, Tidd and Bessant (2001) say that innovation is the process of turning opportunities into new ideas and putting them widely into practice. So innovation capability can be defined as the ability to make a breakthrough or something new that provides benefits to actors and others. These actors can be called creators or motivators in accordance with the duties they are assigned, both as leaders and as workers.

Productivity is all activities or activities carried out by a person or team in an organization or company related to what is produced after the activity is carried out. Thus, its also closely related to work results, which is better known as work productivity. Work productivity is very important for an organization because the productivity of labor can affect behavior, work environment, costs, time, and products produced in an organization. Productivity can be interpreted as something that results from all activities, both in the form of goods and services, maybe even behavior. Characteristics of people who have innovation or innovation "sense", namely: imaginative, receiving input (advice, correction, direction, and renewal), having a desire to do something new, being able to work together, easy adapt to the environment (home, office, company), be responsible for personal behavior (discipline, dare to take risks), have ideas, have good intellect or intelligence, know how to solve problems, are inspirational, creative, and have a vision for the future. Labor productivity is not only for getting work results, but for quality as stated by Sedarmayanti (2017) that "work productivity is how to produce or increase the results of goods and services as much as possible by utilizing resources as efficiently as possible". So it can be assessed from a person's ability to manage and utilize their resources to get maximum results.

Based on various arguments and research results that have been stated, it can be concluded that innovation capability has an effect on work productivity because innovation capability is a measure of the progress of a company or organization even in a person. Thus, the workforce has the determination or desire to be better, improve themselves, and increase their performance so that they



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can be of benefit to others and increase the innovation capacity of an organization or company and enable to achieve success. Labor motivated to take part in training with their abilities and happy with activities that aim to improve organizational innovation capabilities, and optimal innovation capabilities require efforts to increase internal factors, namely human resource capabilities. Human resource development capability is the ability of an organization to develop and improve the technical and managerial capabilities of its human resources.

The conclusion above refers to the opinion of the experts: to build innovation capacity when employees are not completely sure that management has provided them with complete information, or when information is not provided in a timely manner then labor productivity is the most common measure of this type, although sometimes measures of capital productivity or even materials are used. The individual dimension sees productivity in relation to individual personality traits that appear in the form of mental attitudes and contain the meaning of the desires and efforts of individuals who always try to improve their quality of life. The relationship between job flexibility and employee self-rated performance, employer provisions on more flexible or better work practices for employees are associated with significantly higher productivity. This supports the "optimistic" view that global competition can spur higher productivity with such practices, laying the groundwork for a "win-win" situation. However, the positive correlations between higher productivity and superior work / life policies all disappear when controlling for management practices. That is, work / life practices reflect better management practices and generally better conditions for employees in the company.

Some of the personality traits associated with innovation from previous studies in the literature (high assessment of aesthetic quality in experience, broad interest, attraction to complexity, high energy, independence of judgment, intuition, self-confidence, ability to accommodate opposites, persistence, curiosity know, and energy) that can facilitate workplace innovation. From 30 to 50 percent of the observed differences in health indicators between workers who engaged in flexible time (either alone or in combination with a compressed work week) and those not involved in formal settings were explained by perceived workplace flexibility in particular was found to be the strongest contributor to this indirect factor of worker productivity in the long term.

Although the data in this literature study is based on research findings or results and some of the opinions of the authors of previous research studies, it cannot be the final decision and be the final conclusion for a literature study on innavation abilities and labor productivity, especially the study literature on the effect of innovation capabilities on labor productivity of which has limitations and further or future studies.

Most of information in this study comes from research from other countries and very little from the author's country, so that the conclusions cannot describe how was it in Indonesia, especially in Palembang-South Sumatra. This study still requires more information or literature describing what might happen, if the organization or company only has the ability to innovate or productivity of the workforce. This information is useful as supporting data or input for leaders in an organization or company, especially for writers / researchers themselves, they can carry out further studies with the same subject matter where the author comes from.

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## FERTILITY DECLINE: LONG AND SHORT RUN EFFECTS ON ECONOMIC GROWTH AND LABOR MARKETS IN SOUTHEAST ASIA

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### Abstract

This study aims to analyze the effect of fertility decline on the growth in per capita income and labor force participation rates in Southeast Asia during the 1993-2018 period. This study applies the Autoregressive Distributed Lag (ARDL) panel model using PMG, MG and DFE estimators to make forecasts related to fertility decline in the short and long term. The results showed that all countries in the Southeast Asian region responded to a decline in fertility as an increase in per capita income growth and labor force participation, except for Singapore, which responded to a decrease in fertility as a decrease in per capita income growth and the level of labor force participation. Based on the Pooled Mean Group (PMG) estimator, the decline in fertility in the long term have a positive and significant effect on the growth of per capita income in Southeast Asia, while the labor market is not significantly affected by a decline in fertility based on these three estimators.

**Keyword:** *Fertility, Economic Growth, Labor Supply*

### 1. INTRODUCTION

Fertility rates in Southeast Asia have declined over the past 50 years. Southeast Asia's Total Fertility Rate (TFR) fell from 5.5 in 1970 to 2.11 in 2019 (EIU, 2019). Total Fertility Rate (TFR) has decreased in Southeast Asia, except Indonesia. Significant TFR declines occurred in Cambodia and Laos from 4.1 and 4.5 in 2005 to 2.6 and 2.7 respectively in 2018. In the case of Brunei Darussalam, Malaysia, Singapore, Thailand, and Vietnam, the TFR decreased to below the average of 2.1 in 2018 (Aseanstat.org, 2019). The Southeast Asian country has achieved tremendous economic growth with a GDP contribution of approximately 3.3% of the global total (EIU, 2019). The improvement in the region's economy is related to demographic conditions, especially the high fertility such as the Philippines, Thailand, Singapore, including Indonesia which has impacted the increasing proportion of the working age population since the 1980s. This empirically indicates that the high birth rate is defined as an economic advantage.

Declining fertility conditions should be watched, as it risks the economy in the long term (Ashraf et al., 2013). This condition related to demographic changes will have an impact on the overall working market conditions. Several empirical studies discussing the relationship between fertility and the job market, Shittu & Abdullah (2019) found that there is a negative and positive relationship between fertility and labor force participation. Fertility relationship with the job market is very close (Martinez & Weyman, 2017). In line with this, increased fertility will have a positive impact on the increasing participation of the female workforce (Bratti, 2003). The high risk of fertility has an impact on the condition of rising youth unemployment (Adsera, 2011). Contrasting conditions associated with increased female labor force participation will reduce fertility in the long term (Bhalotra et al., 2018).

During demographic transitions, decreased fertility causes major changes in the population age structure in low fertility groups that will lower the adolescent dependency ratio and will implicitly increase output per capita if output per worker, labor force, labor age population participation remains constant. These conditions will result in demographic dividends (Bloom & Freeman, 1986; Brander &

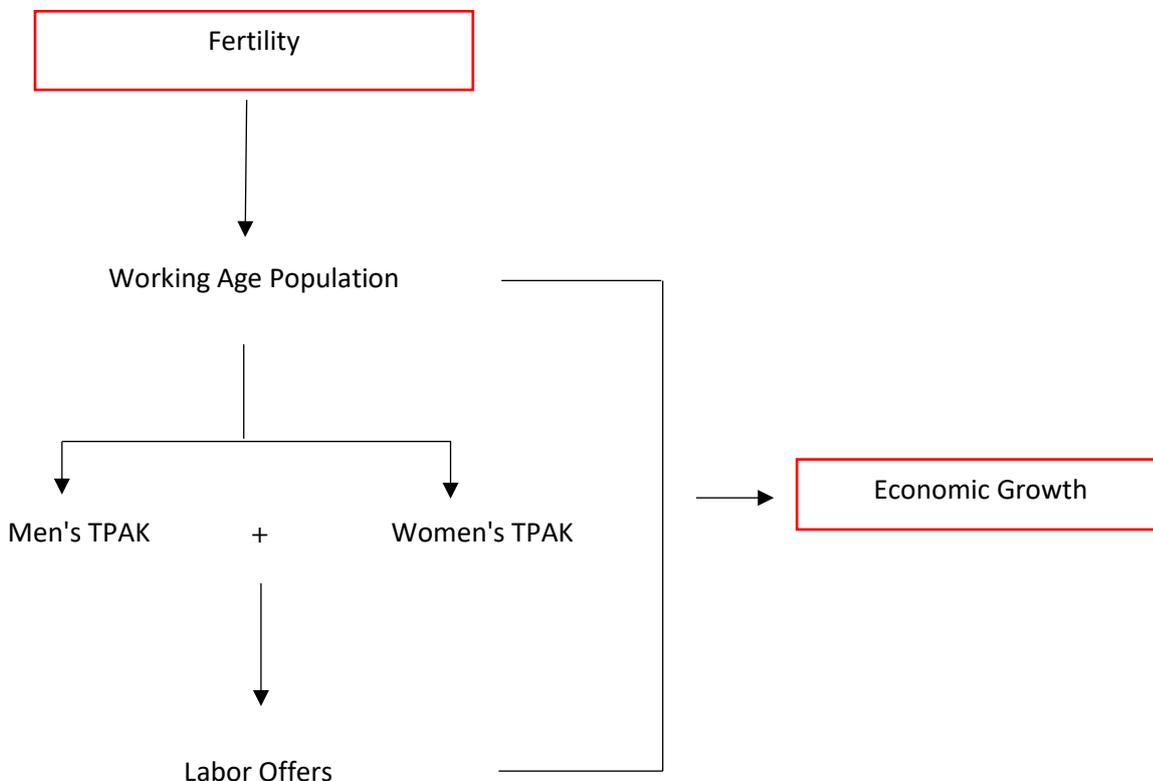
Dowrick, 1994 ; Kelley & Schmidt, 1995; Bloom & Williamson, 1998; Bloom et al., 2003; Li et al., 2018).

Consistent with this, Karra et al., (2017) revealed that changes in demographic conditions caused by decreased fertility are one of the determining factors of economic growth. The debate over empirical studies on the impact of fertility on economic growth can be seen from differences in empirical studies including Prettnner et al., (2012) which found there was a significant trade off between fertility and economic growth. In line with this Li et al., (2018) proves that there is a very strong link between fertility and economic growth. In contrast to fox et al.'s study, (2019) which found that fertility negatively affects economic growth and the after future will be responded positively.

Based on the case of declining fertility in Southeast Asia will raise the question of how the impact of the decline in fertility is responded to by the labor market and economic growth. For this reason, the relationship between fertility, the labor market and economic growth is an important research topic in economic and demographic studies in Southeast Asia. This paper will analyze the long-term effects of fertility reduction on economic growth and the dynamic relationship between fertility and the macro labor supply.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This paper refers to transition theory and demographic dividends (see, Bloom & Freeman, 1986; Bloom & Williamson, 1998; Bloom et al., 2003). This research will imply a demographic dividend model in Southeast Asia. This is specifically applied to the fertility model, the working age population and the labor supply (Ashraf et al., 2013; Karra et al., 2017) developed within the following conceptual frameworks:



**Figure 1: Conceptual Framework**



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Figure 1 illustrates the demographic transition model in terms of fertility decline will have a direct impact on the condition of the population in Southeast Asia. These implications for the response of the population will determine the number of age group populations categorized as young age groups and working age groups. Refers to the fertility framework that means *trade off* between the quality and quantity of Becker & Lewis (1973). *The trade off* will raise the question of whether fertility will have an adverse impact or have an economic advantage in the future. By accumulating groups of people aged 20-65 who enter the workforce categorized by gender which in a macro context is known as the Labor Force Participation Rate (TPAK) both female and male. This condition is very dynamic where the increase in labor force participation has an impact on the increasing per capita income, meaning that changes in fertility will respond negatively and positively to per capita income, this is related to changes in the structure of the working age population, some empirical studies including Mammen & Paxson (2000) which revealed that increased labor force participation had an impact on the increase in per capita income. Consistent with that Becker, (1960) the decline in fertility negatively affected per capita income. The fertility increase is inseparable from the increase in human capital demand in the development process and the transition to modern growth (Galor, 2012).

Differences in empirical studies related to fertility relations and economic growth include (Fox et al., 2019; Esping-Andersen & Billari, 2015; Goldscheider et al., 2015; Luci-Greulich & Thévenon, 2014; Myrskylä et al., 2009) which found negative fertility trends will be in response to increasing economic development both micro and regionally. The findings contrast with (Becker, 1960; Cleland & Wilson, 1987; Goldstein & Klüsener, 2014; Klüsener et al., 2018; Guinnane, 2011; Mason, 1997) which finds that the downward trend of fertility will be responded negatively to economic growth. This difference is due to several assumptions in the study in line with the basis of quality-quantity theory (Becker & Lewis, 1973) which impacts on negative and positive relationships, therefore it needs to be limited supported by government intervention with its policy direction (Sobotka et al., 2019; Tsuya & Bumpass, 2004; Myrskylä et al., 2009). Based on these assumptions, the hypothesis is formed as follows:

**Table 1: Research hypothesis**

No	Hypothesis
1	The decline of fertility has a long-term relationship of co-integration to economic growth.
2	There is a dynamic relationship between fertility, the Labor Force Participation Rate (TPAK) and economic growth.
3	There is a short-term and long-term influence between declining fertility and economic growth.
4	There is a short-term and long-term effect of decreased fertility on TPAK in both women and men.

### 3. Research Methodology

In particular this paper will discuss the impact of decreased fertility in the short and long term on economic growth and the labor market, with the downward trend of fertility will affect population structure patterns in Southeast Asia. This study used data on Total Fertility Rate (TFR), Per capita Income Growth and TPAK of men and women sourced from the World Bank during the period 1993-2018 in all Southeast Asian countries. Based on quantitative approaches, this study aims to discuss fertility change patterns using the *Autoregressive Distributed Lag (ARDL)* analysis tool to determine the impact of short-term and long-term fertility decline on economic growth and the labor market. The general model mathematically forms the following equations:

$$Growth = F(TFR) \quad (1)$$

$$LFP = F(TFR) \quad (2)$$

*Autoregressive Distributed Lag* (ARDL) approach (Pesaran, 1997) based on (Shin & Smith, 2001) ARDL approach to co-integration models is shown in equations (3) and (4):

$$\Delta Growth_{it} = \beta_0 + \beta_1 \Delta TFR_{it} + \beta_2 \Delta TFR_{it-1} + \varepsilon_t \quad (3)$$

$$\Delta LFP_{it} = \beta_0 + \beta_1 \Delta TFR_{it} + \beta_2 \Delta TFR_{it-1} + \varepsilon_t \quad (4)$$

The following *Error Correction Model* (ECM) is obtained using a single vector auto regression and uses lag length criteria in equations (5) and (6)

$$\Delta Growth_{it} = \beta_0 + \sum_{j=1}^p \beta_1 \Delta Growth_{it-j} + \sum_{j=0}^p \Delta \beta_2 TFR_{it-j} + \beta_3 ECT_{it-j} \quad (5)$$

$$\Delta LFP_{it} = \beta_0 + \sum_{j=1}^p \beta_1 \Delta GRROWTH_{it-j} + \sum_{j=0}^p \Delta \beta_2 TFR_{it-j} + \beta_3 ECT_{it-j} \quad (6)$$

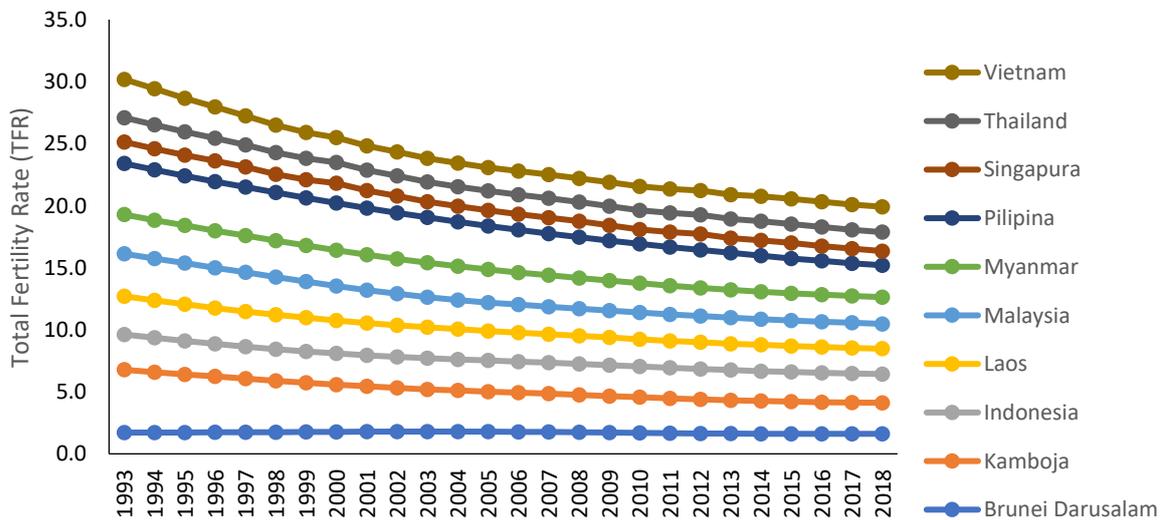
where  $ECT_{it-i}$  is the term ECM described in (7) and (8):

$$\Delta ECT_{it} = \Delta GROWTH_{it} - \beta_0 + \sum_{j=1}^p \beta_1 \Delta GROWTH_{it-i} + \sum_{j=0}^p \Delta \beta_2 TFR_{it-j} \quad (7)$$

$$\Delta ECT_{it} = \Delta LFP_{it} - \beta_0 + \sum_{j=1}^p \beta_1 \Delta LFP_{it-i} + \sum_{j=0}^p \Delta \beta_2 TFR_{it-j} \quad (8)$$

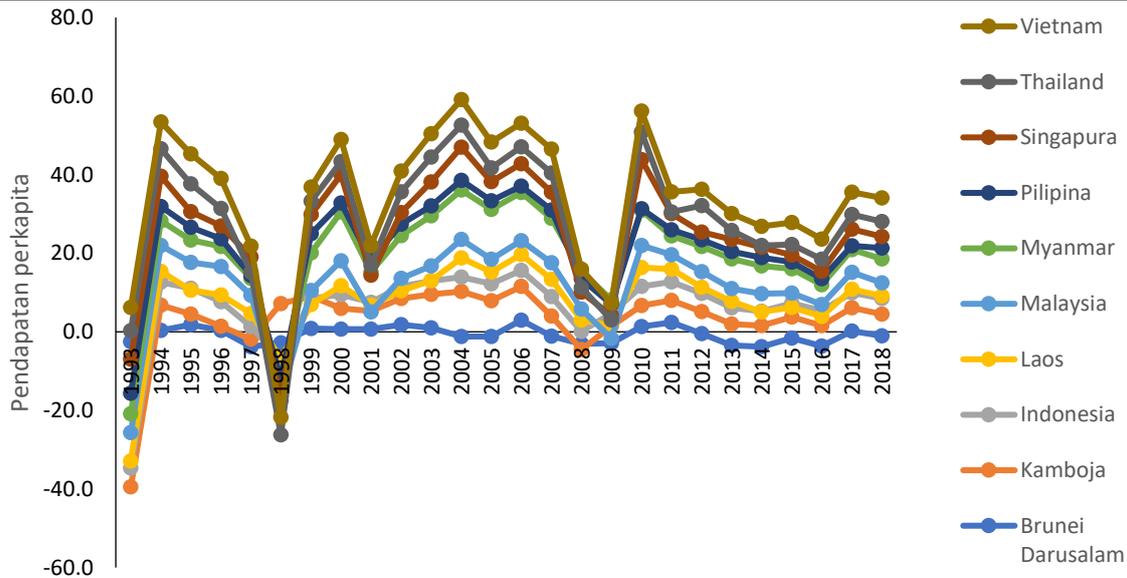
## 4. RESULTS AND DISCUSSION

The first analysis was conducted descriptively related to fertility trends, economic growth and labor force participation rates in South East Asia.



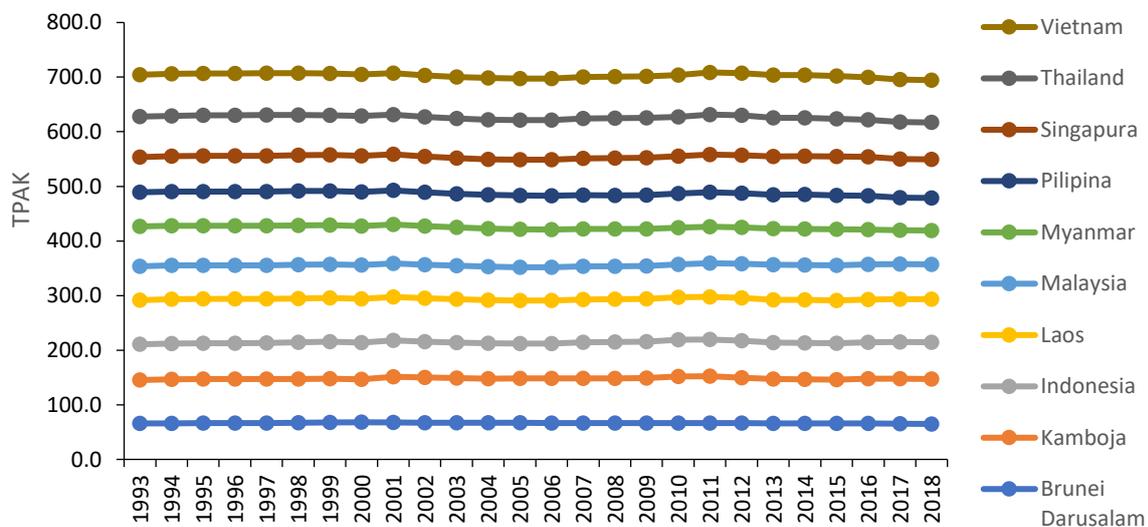
**Figure 2: Fertility Trends in Southeast Asia During the Period 1993-2018**

Overall, almost all countries in Southeast Asia experienced a decline in fertility except for Brunei Darussalam, which was seen to have fluctuating fertility changes. During the 1998-2007 period, fertility experienced an increase and decreased again in the following period with a constant change value.



**Figure 2: Trends in Per capita Income Growth in Southeast Asia During the Period 1993-2018**

The trend of per capita income in the Asian Region shows a fluctuating movement, a negative trend occurred in two countries, namely the beginning of the period, namely Brunei Darussalam and Cambodia, which were respectively -2.5 percent and -37.0 percent. Meanwhile, for the 1998 period, almost all countries in the Southeast Asia region experienced negative growth, namely Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand.



**Figure 4: Trends in Per capita Income Growth in Southeast Asia During the Period 1993-2018**

The labor force participation rate in Southeast Asia tends to fluctuate, but changes constantly. Some of the countries in the Region had the highest labor force participation rates over the past 26 periods namely Vietnam, Thailand in Singapore which ranged from over 70 percent. Based on the descriptive analysis, it shows that the trend of fertility is decreasing, as well as the growth in per capita income tends to fluctuate and the TPAK is constant. The next stage is to examine the impact of the decline in fertility on economic growth and the labor market in the short and long term. The initial process is *the cross-sectional dependence (CSD) test and the panel unit root test*.

In applying the first or second generation unit root test, the study conducted a cross sectional cross-sectional dependence (CSD) which is shown in Table 1. Based on the statistical results at the 1%



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significance level, it indicates that there is a dependence between the variables studied. The conditions relate to the 10 countries in Southeast Asia which are members of ASEAN so that economic policies, regulations and trends in fertility, economic growth and the labor market tend to experience the same movement, therefore there is dependence between the variables studied based on the value of *the cross-sectional dependence*.

**Table 1: Cross-sectional dependence (CSD) Test**

Test	TFR		Growth		LFP	
	Statistics	Prob.	Statistics	Prob.	Statistics	Prob.
Breusch-Pagan LM	342.895	0.0000	173.1221	0.0000	808.6262	0.0000
Pesaran scaled LM	31.40089	0.0000	13.50526	0.0000	80.49326	0.0000
Bias-corrected scaled LM	31.20089	0.0000	13.30526	0.0000	80.29326	0.0000
Pesaran CD	-0.89014	0.3734	9.035606	0.0000	27.70332	0.0000

The second procedure was carried out by testing the second-generation unit root test panel Levin, Lin & Chu  $t^*$  (Levin et al., 2002), Im, Pesar & Shin (Pesar et al., 2000), ADF Fisher Chi-square (Maddala & Wu, 1999) and PP - Fisher Chi-square (Perron, 1988). The following is the Unit Root Test Panel test which can be seen in Table 2:

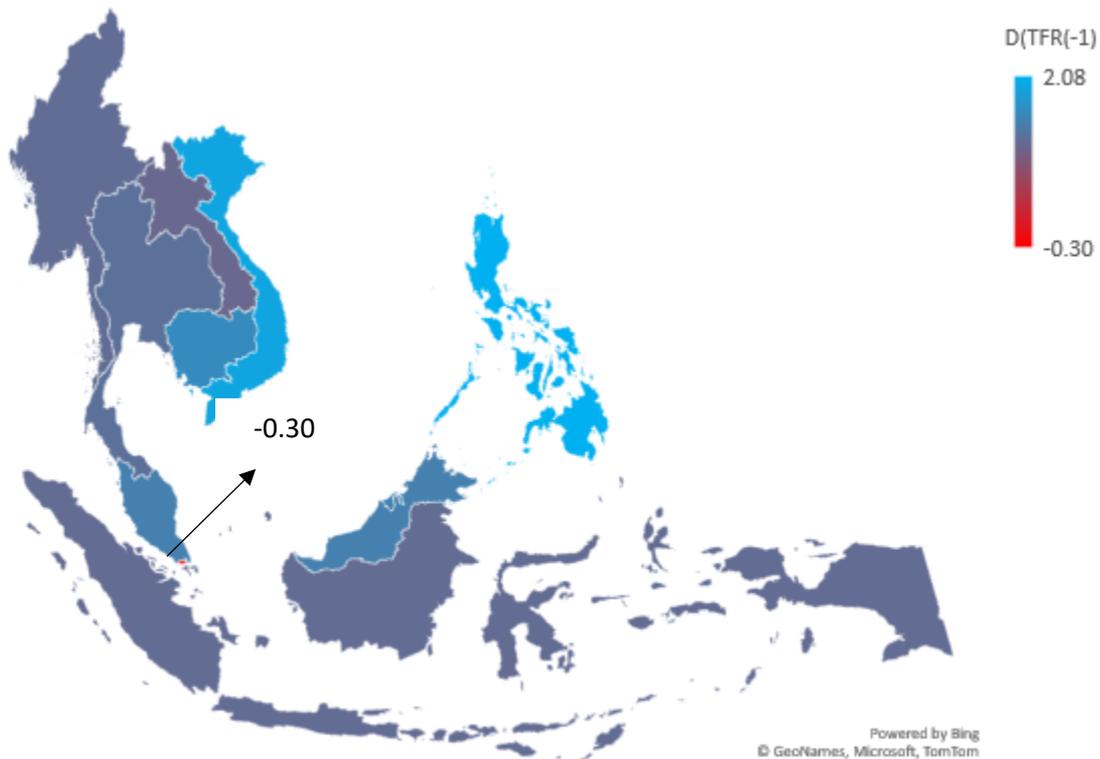
**Table 2: Panel Unit Root Test**

Method (First Order)	TFR		Growth		LFP	
	Statistics	Prob.**	Statistics	Prob.**	Statistics	Prob.**
Levin, Lin & Chu $t^*$	-10.241	0.000	-9.193	0.000	-1.822	0.034
Im, Pesaran and Shin	-9.111	0.000	-12.508	0.000	-3.335	0.000
ADF - Fisher	117.644	0.000	160.274	0.000	48.080	0.000
PP - Fisher	37.397	0.011	239.611	0.000	78.146	0.000

Based on the test it can be seen that the probability value of the test in the *First Order* is smaller than the  $\alpha$  thus the TFR, GROWTH and LFP variables are stationary.

### Fertility and Economic Growth

It can spatially be seen that almost all countries in Southeast Asia based on short-term testing show that fertility has a positive and significant effect on per capita revenue growth. This means that the fertility response in the short term will provide positive stimulus to per capita income. But in stark contrast to developed countries, fertility responded negatively to per capita income growth in the short term. Consistent with some studies that say that low fertility actually lowers per capita income (Bak, 2019). This case is more or less the same as the study conducted that in the short term Singapore experienced a decrease in fertility as economic growth declined in the country. This is reinforced by several studies with similar cases (Asher & Nandy, 2009; United Nations, 2015) which comparatively discusses the low fertility should be responded to by policy as a challenge in the future.



**Figure 4: Spatial Condition Affects Fertility on Short-Term Per capita Revenue Growth in Southeast Asia.**

Based on Table 3, it shows that the Error Correction Term (ECT) in several countries that have positive values, including Indonesia and the Philippines, are 0.006 and 0.004, respectively, indicating that the speed of adjustment from short-term equilibrium to long-term equilibrium shows a positive trend. Meanwhile, other countries have negative and significant ECT values, which means that the adjustment speed of the short-term equilibrium has a negative trend.

**Table 3: PMG Estimation Results for Individual Countries in the Short Run (Economic Growth Model)**

Country	Variable	Coefficient	P-value
<b>Brunei Darussalam</b>	Ect	0.017307	0.0000
	D (TFR (-1))	1.461989	0.0000
<b>Cambodia</b>	Ect	-0.016731	0.0000
	D (TFR (-1))	1.584894	0.0000
<b>Indonesian</b>	Ect	0.006733	0.0000
	D (TFR (-1))	1.158317	0.0001
<b>Laos</b>	Ect	-0.00777	0.0000
	D (TFR (-1))	1.106852	0.0000
<b>Malaysia</b>	Ect	-0.016	0.0000
	D (TFR (-1))	1.436916	0.0000
<b>Myanmar</b>	Ect	-0.00655	0.0000
	D (TFR (-1))	1.176029	0.0000
<b>Philippines</b>	Ect	0.00401	0.0000
	D (TFR (-1))	2.08282	0.0000
<b>Singapore</b>	Ect	-0.22200	0.0001
	D (TFR (-1))	-0.29767	0.0057



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<b>Thailand</b>	Ect	-0.00877	0.0000
	D (TFR (-1))	1.22913	0.0000
<b>Vietnamese</b>	Ect	-0.01904	0.0000
	D (TFR (-1))	1.929466	0.0000

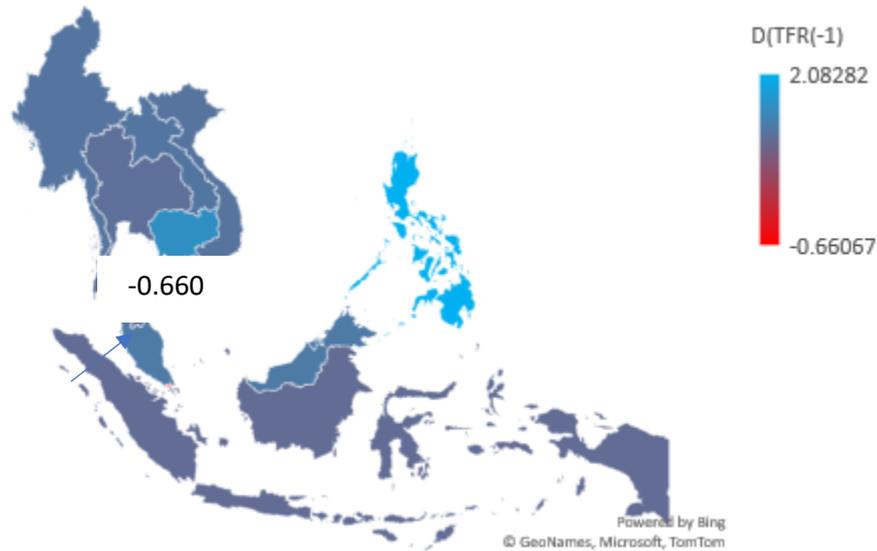
The estimation results are shown in table 4 shows that in the Pooled Mean Group (PMG) model, long-term fertility is proven to have a positive and significant effect on per capita income growth in Southeast Asia, different findings in the Dynamics Fixed Effect (DFE) model indicate that fertility has a negative and significant effect. significant at a 10 percent error rate. The value of Error Correction Term (ECT) shows a positive and significant effect, which means that there is a positive relationship between variables in the long term. The difference in long-term results in the three models (PMG, MG and DFE) shows that the estimation of dynamic panel estimators, meaning that changes in per capita income that tend to be dynamic will be responded negatively or positively according to the study of Fox et al., (2019) which reveals that the fertility response unpredictable economic growth due to changes in dynamic economic growth.

**Table 4: Fertility and Per capita Income Growth**

Estimator	PMG			Mg		DFE	
	Variable	Coefficient	P-Value	Coefficient	P-Value	Coefficient	P-Value
<b>Long Run</b>	TFR (-1)	2.723878	0.0010	2.362564	0.6090	-1.95933	0.088
<b>Short Run</b>	Ect	0.702166	0.0000	0.780535	0.0000	0.746722	0.0000
	TFR (-1)	-5.36141	0.6160	17.91437	0.5670	-1.68801	0.8130

### Fertility and Labor Market

The fertility response across Southeast Asian countries shows a positive and significant influence on TPAK in the short term, meaning increased fertility will increase TPAK in the long run. In contrast to Singapore which experienced a very significant decrease in fertility which impacted the decline of TPAK this is evidenced by the negative short-term coefficient value. This case occurs in developed countries (Raymo & Shibata, 2017) which discuss fertility patterns in Japan in the long term. Empirical studies with similar cases have predicted by (Cheung, 1990) that singapore in the next 20-24 years will experience labor scarcity conditions. Consistent with (Chuan, 2007) finding that the decline in fertility in Singapore has major implications on the position of the labor supply.



**Figure 5: Spatial Condition Affects Fertility on TPAK in the Short Term in Southeast Asia**

Table 3 shows that the Error Correction Term (ECT) values in several countries in Southeast Asia have positive values, namely Indonesia and the Philippines, which are 0.0016 and 0.004, respectively, indicating that the speed of adjustment from short-run equilibrium to long-term equilibrium shows a positive trend. This means that the adjustment of the fertility coefficient in the long term will be responded positively by the TPAK in the long term significantly. While almost all countries in the Southeast Asia region have negative and significant ECT scores, it means that the rate of fertility adjustment from short-term to long-term equilibrium has a negative response. The significant ECT probability value indicates that fertility and LFP are cointegrated in the long run

**Table 5: Estimation Results of Individual Country's PMG in the Short Run (Labour Market Model)**

Country	Variable	Coefficient	P-value
Brunei Darussalam	Ect	-0.01266	0.0001
	D (TFR (-1))	1.242789	0.0000
Cambodia	Ect	-0.01552	0.0000
	D (TFR (-1))	1.56319	0.0000
Indonesian	Ect	0.001679	0.0000
	D (TFR (-1))	1.026528	0.0000
Laos	Ect	-0.00679	0.0000
	D (TFR (-1))	1.18426	0.0000
Malaysia	Ect	-0.0156	0.0000
	D (TFR (-1))	1.241262	0.0001
Myanmar	Ect	-0.01004	0.0000
	D (TFR (-1))	1.165037	0.0000
Philippines	Ect	0.00401	0.0000
	D (TFR (-1))	2.08282	0.0002
Singapore	Ect	-0.1315	0.0000
	D (TFR (-1))	-0.66067	0.0003
Thailand	Ect	-0.00912	0.0000
	D (TFR (-1))	1.087047	0.0002
Vietnamese	Ect	-0.07064	0.0000
	D (TFR (-1))	1.144553	0.0001



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Estimates using all three guesses (PMG, MG and DFE) show that the effect of fertility on the labor force participation rate has no significant effect in the short or long term. This condition indicates that the change in fertility is not able to explain the overall TPAK change. In line with this (Prettner et al., 2012) fertility changes do not directly affect labor offerings in the long term but take into account variables such as education and health. Error Correction Term (ECT) values throughout the estimator indicate a positive and significant influence meaning there is a positive relationship between variables in the long run.

**Table 6: Fertility and Labor Force Participation Rate**

Estimator	PMG			Mg		DFE	
	Variable	Coefficient	P-Value	Coefficient	P-Value	Coefficient	P-Value
<b>Long Run</b>	TFR (-1)	34.18396	0.1790	0.003931	0.9880	-0.90673	0.458
<b>Short Run</b>	Ect	0.01149	0.0000	0.710811	0.0000	0.114118	0.0000
	TFR (-1)	-2.01611	0.3040	-0.33192	0.8540	0.947328	0.4120

### 5. CONCLUSIONS AND RECOMMENDATIONS

This study analyzes the impact of decreased fertility on the growth in per capita income in all Southeast Asian countries during the 1993-2018 period. After testing the Breusch-Pagan LM, LM scaled magnification, Bias-corrected scaled LM, and CD magnification there is a cross-sectional dependence and this study also tests stationarity with the estimation results showing that all variables are stationary in second order or first difference. Taking into account the heterogeneous nature of the data, the study applies the ARDL panel model using PMG, MG and DFE estimators to identify the effect of fertility on economic growth and the labor market in the long and short term. The PMG estimation results of individual countries in the short -term show that the effect of fertility in all Southeast Asian countries has a positive and significant effect, except for Singapore, which responds to the decline in fertility in the short term as a decrease in per capita income growth and a decrease in the level of labor force participation.

Further findings based on Pooled Mean Group (PMG) fertility decline in the long run proved to have a positive and significant effect on growth in per capita income in Southeast Asia, different findings in the Dynamics Fixed Effect (DFE) model indicate that fertility has a negative and significant effect. Meanwhile, based on the three prediction, namely (PMG, MG and DFE), the decline in fertility has no effect on the level of labor force participation, both in the short and long term. The recommendation of this issue is related to the decline in fertility in Singapore which has a negative impact in the short term on the growth of per capita income and the level of work participation. Thus these findings must be responded to with a form of policy in overcoming the problem of low fertility, especially family policies according to parameters (Sobotka et al., 2019) which recommend family planning that should be supported by the government psychologically the family.

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## IMPLEMENTATION OF FISCAL POLICIES TO THE ESTABLISHMENT OF A BALANCED BUDGET IN THE SOUTH SUMATRA PROVINCE

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### Abstract

**Purpose.** This research was conducted to determine how the implementation of fiscal policy by the government in order to balance the budget in South Sumatra Province.

**Research methodology.** The data used in this research is secondary data sourced from the Directorate General of Taxes and Finance and the Central Bureau of Statistics. The data analysis method used is multiple linear regression to see the effect of fiscal policy, which includes employee expenditure and economic growth on the occurrence of balance / unbalanced budget.

**Results.** Employee expenditure has a positive and significant effect on unbalance budget, and economic growth has a negative and significant effect on unbalance budget. Based on the results of the regression analysis, the R-square value of 0.928 means that employee expenditure and economic growth had a major influence in determining the occurrence of balance / unbalanced budget

**Limitations.** This study only used two independent variables, specifically employee expenditure and economic growth because based on the phenomena in the Southern Province, employee expenditure has the highest value compared to other components of APBD expenditure and economic growth in South Sumatra Province fluctuates annually so employee expenditure and economic growth is an important component in implementing fiscal policy.

**Contribution.** The government of South Sumatra Province should pay attention to the movement of employee expenditure variables and economic growth so there is unbalanced in the budget.

**Keywords.** Budget Surplus, Fiscal Sustainability, Budget Deficit

**JEL Classification:** E62, H61, H62

### 1. INTRODUCTION

Fiscal policy is a determining component in determining budget balance where budget balance is one of the problems faced by the government which purpose to optimization the level of welfare in an area [1]. South Sumatra Province is one of province in Indonesia which located in the southern part of Sumatra Island. This province consists of seventeen districts / city with different characteristics and areas in each district / city [2]. This condition causes less even distribution of regional development even though the distribution of development results and high economic growth could create prosperity for the community [3]. Therefore, regional governments always try to increase regional revenue and budget expenditure (APBD) for the continuity of regional development.

According to Undang-Undang Nomor 45 Tentang Anggaran Pendapatan Dan Belanja Negara Tahun Anggaran 2008 employee expenditure is the central government expenditure which is used to finance compensation in the form of money or goods which given to central government employees, retirees, members of the Indonesian National Army / National Police of the Republic Indonesia, and state office which on duty at domestic and foreign, as compensation for the work that has been done, except for work which related to capital formation. Based on annual data from the Direktorat Jenderal Pajak Keuangan (2017) the largest portion of expenditure in each district / city in South Sumatra Province is employee expenditure, where the allocation achieved almost 10 trillion or 70% from other regional expenditure components, this problem indicates is more of the governments in



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each district / city Province in South Sumatra have a potential to developed employee expenditures or employee welfare. The high of employees expenditure causes the absorption of this capital expenditure or development expenditure to be low value.

A country's budget could be arranged differently depending on the economic conditions of the region. A region was able to arrange a balance budget if the economic conditions of a region are normal. A surplus budget policy occurred because changes in fiscal policy that were expansionary or contractive so on the government budget so that the surplus value depending on the economic conditions of an area [6].

**Table 1 : Development of Balanced Funds, Employee Expenditures, and Economic Growth to the Budget Deficit in South Sumatra Province in 2009 - 2018**

Tahun	Employee Expenditure (milliar rupiah)	Economic Growth (%)	Budget Deficit / Surplus (milliar rupiah)
2009	3.876.530	5,87	-2.461.988,00
2010	4.807.694	6,53	-318.013,19
2011	7.032.571	6,2	74.951,74
2012	7.227.917	5,47	-622.937,57
2013	7.636.221	5,53	-404.140,00
2014	8.450.014	5,27	68.497,00
2015	9.377.719	5,47	201.101,00
2016	9.871.289	5,53	578.295,00
2017	9.056.917	5,8	865.034,00
2018	9.366.347	6,07	1.044.884,00

Source: The directorate general of tax and finance and statistical center agency, June 2020 (processed)

Based on the these table concluded that have a significant influence that could cause a unbalanced budget from the employee expenditure and economic growth, because to Sudarso (2018) in South Sumatra Province, currently there are many activities to improve employee welfare in the form of increased salaries, benefits, and the appointment of honorary employees to permanent employees which the totals expenditures result in exceeding the level of development spending as it was known that the employee expenditure was a permanent expenditure that occurred every year. The economic growth of an area would be of high value if the income of an area was high value and the need for community welfare was met, or in other words the level of income reflects the level of economic growth of an area [8]. A region would be unbalanced budget if the government spends excessive personnel expenditures that were not proportional to its income level [5]

Indeed not every years in South Sumatra Province experienced a unbalanced budget in 2009 - 2018, but the table above reflected that the employee expenditures and a general of economic condition (economic growth) in South Sumatra Province has not been able to optimization its expenditure so in this case the variables of employee expenditure, and economic growth are the determining factors for the occurrence balanced budget in South Sumatra Province.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Theory The Government Budget

This theory was put forward by Siebel & Pitsoulis (2011) which states that in order for the budget to occur in a balanced manner, the government needs to regulate fiscal expenditure that is balanced with



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the level of income, and if fiscal expenditure is positive or exceeds the level of income, then there is an unbalance budget or budget deficit. Personnel expenditure is one of the fiscal expenditure components in the Regional Revenue and Expenditure Budget. The results of this study are in line with the research of Kuncoro (2014) and Nuraini., et al (2013) which states that employee spending has a positive effect on the occurrence of unbalance budget.

### Theory Keynesian

This theory states that economic conditions can affect the balance of the budget. According to this theory, an increase in income and an increase in consumption for the welfare of society can cause budget imbalances, but an increase in tax revenue can reduce budget imbalances. Economic growth is one benchmark of an economic condition, in this case, many studies discuss the effect of economic growth on budget balance, among others, according to Yovita (2011), Yustika (2012), Austine., et al (2016) and Molocwa., et al (2018) which state that economic growth has a positive effect on unbalance budget. Here, the positive effect of economic growth on unbalance budget because in a country/region the government implements policies to increase income and increase consumption for the welfare of society, which differs from the research of Sari (2019), Dinda., et al (2012), Oltjana & Berischa (2016), Merina., et al (2019) Sardiasmo (2015) and Rahmadi (2014) which state that economic growth has a negative effect on unbalance budget, meaning that a country/region does not occur in an unbalance of the government budget by implementing a revenue increase taxation policy.

### 3. METHODS OF RESEARCH

The data used in this study have a range year 2009 until 2018 The data collected from this research comes from official publications, Central Bureau of Statistics (BPS), Directorate General of Financial Tax (DJPK) and other publications which supported this research. This research used multiple linear regression with the following functions:

$$Y_{it} = \beta_1 X_{1it} + \beta_2 X_{2it} + \mu_{it}$$

From the model above the formula with variables can be written with the formula:

$$BB = \alpha + \beta_1 EE + \beta_2 EG + e$$

Information :

BB : Balance/unbalance Budget in South Sumatra Province 2009 - 2018 (billion rupiah)

EE : employee expenditure in South Sumatra Province 2009 – 2018 (billion rupiah)

EG : Economic Growth in South Sumatra Province 2009 – 2018 (percent)

$\beta_1 \beta_2 \beta_3$  : coefficient each variables on research

$e$  : Term of error

### 4. RESULTS AND DISCUSSIONS

Following are the results of the regression analysis of the effect of employee expenditure and economic growth on balance/unbalance budget:

Dependent Variable: BB

Method: Least Squares

Date: 11/04/20 Time: 13:40

Sample: 2009 2018

Included observations: 10



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Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-12068759	1944633.	-6.206187	0.0004
EE	0.548239	0.057429	9.546319	0.0000
EG	-1345022.	291784.8	-4.609638	0.0025
R-squared	0.928690	Mean dependent var		-97431.60
Adjusted R-squared	0.908315	S.D. dependent var		991307.3
S.E. of regression	300163.0	Akaike info criterion		28.30536
Sum squared resid	6.31E+11	Schwarz criterion		28.39614
Log likelihood	-138.5268	Hannan-Quinn criter.		28.20578
F-statistic	45.58117	Durbin-Watson stat		2.475364
Prob(F-statistic)	0.000097			

Source: Processed data, 2020

The regression results using multiple regression data can be made equation as follows :

$$BB = -12068759 + 0.548239EE - 1345022.EG$$

Based on coefficient determination value ( $R^2$ ) shows that the value of coefficient determination is 0,928 or 92,8 percent the meaning is 92,8 percent variable balanced fund, employee expenditure, and economic growth can explain balanced/unbalanced budget and the rest (7,2 percent) can be explain by other variables which are not include in the regression model.

Based on regression model estimation results shows that the value of probability employee expenditure is 0.0000 or the value  $< 0,05$  means that variable employee expenditure has a positif effect and significant for unbalanced budget where the value of coefficient regression employee expenditure is 0.548239 the means, if this happen increases employee expenditure is 1% it will be increase unbalanced budget is 0.548239 percent. Based on The Government Budget Theory the positive effect of employee expenditure can cause unbalanced budget.

Based on regression model estimation results shows that the value of probability economic growth was 0.0025 or the value  $< 0,05$  means that variable economic growth has a negative effect and significant for unbalanced budget where the value of coefficient regression economic growth is -1345022. the means, if this happen increases economic growth was 1% it would be decrease unbalanced budget as -1345022. percent like that rather. Based on the Keynesian Theory the negative effect of economic growth can reduce unbalanced budget.

The value probability F statistic is  $0.000097 < 0.05$  which results shows that the value variable balance fund, employee expenditure, and economic growth collectively had a significant effect on the balanced/unbalanced budget.

No	Variable	Correlation	Significance Level
1	Employee expenditure	Positive	Significant
2	Economic Growth	Negative	Significant

Employee expenditure had a positive effect and significant for unbalanced budget. Based on The Government Budget Theory the positive effect of employee expenditure can cause unbalanced budget. In general this means that an increase in employee expenditure with significant would be affected the increase for unbalanced budget. This condition caused employee expenditure which is



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issued by the government exceeds the level of its income, so in this case the more employee expenditures that are issued by the government will encourage unbalanced budget. The result in line with research Kuncoro (2014) and Nuraini., et al (2013) which states that the employee expenditure had a positive effect which could lead for unbalanced budget.

Economic Growth had a negative effect and significant for budget deficit. Based on the Keynesian Theory, the negative effect of economic growth can reduce unbalanced budget. In general this condition shows the increase economic growth would significantly decrease unbalanced budget. The result in line with Theory Keynesian which stated an increase in tax revenue can be reduce unbalanced budget. The result in line with research Sari (2019), Dinda., et al (2012), Oltjana & Berischa (2016), Merina., et al (2019) Sardiasmo (2015) and Rahmadi (2014) which stated that the economic growth had a negative effect for budget deficit. In this case means that the economic condition to decrease unbalanced budget by applying an increase in tax revenue.

### 5. CONCLUSION

Analysis results show that employee expenditure has a positive and significant effect on unbalance budget, and economic growth has a negative and significant effect on unbalance budget. From the results of the regression analysis of employee expenditure and economic growth has a great influence in determining the balance of the budget because it can be seen from the results of the R-square value of 0.928 which means 92.8 percent of employee expenditure and economic growth can explain the occurrence of balance/unbalance budget, so in this case the government should pay attention to the two movements of the free variables so that unbalance budget do not occur. And based on the results of the regression analysis of the government's efforts to create a balanced budget, the government should reduce the amount of employee expenditure and increase tax revenue.

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## INCOME SMOOTHING ANALYSIS: ECKEL INDEX APPROACH (EMPIRICAL STUDY OF GO PUBLIC PROPERTY, REAL ESTATE AND CONSTRUCTION COMPANIES)

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### Abstract

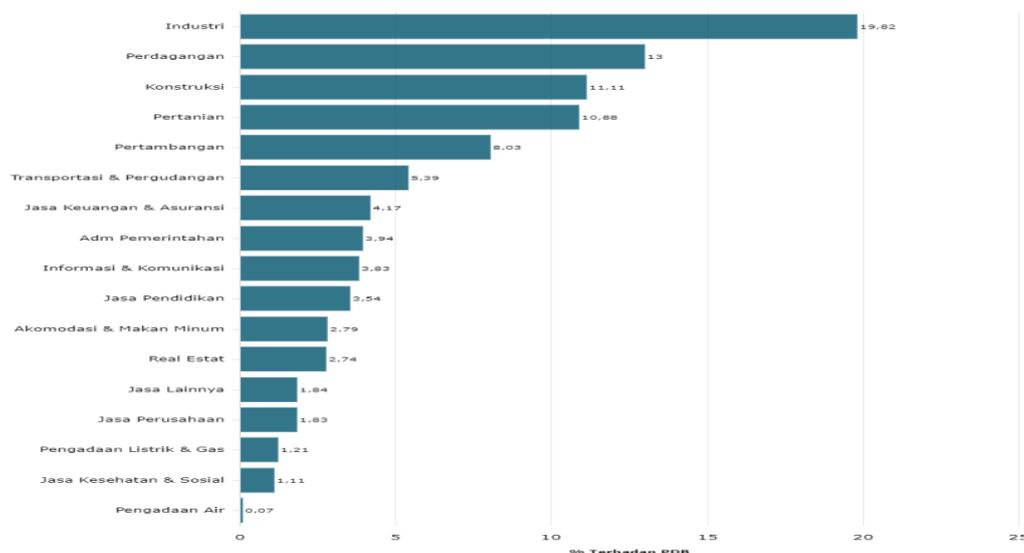
The purpose of this study is to determine companies that perform income smoothing by using the Eckel index approach. The population in this study were property, real estate and construction companies listed on the Indonesia Stock Exchange for the period 2016 to 2019, totaling 83 companies. The sample selection used in this research is purposive sampling method with a total sample of 54 companies that meet the sample selection criteria. The research method used in this study to determine and obtain information about the existence of income smoothing practices by the company is a quantitative descriptive statistical method. Based on the results of the research using the Eckel index approach, it can be seen that as many as 32 companies consisting of 28 property and real estate companies and 4 construction companies were proven to be identified as carrying out income smoothing actions, while as many as 22 companies that were not proven were identified to have carried out income smoothing actions. The results of this study can provide contributions and considerations for the parties who use financial statements, especially investors in assessing companies for decision making to be more careful in placing their investments.

**Keywords:** *Income Smoothing, Indeks Eckel*

### 1. INTRODUCTION

The industrial sector provides the largest contribution to the Indonesian economy. Based on data from the Central Statistics Agency, Gross Domestic Product (GDP) in 2018, the industrial sector reached 2,947.3 trillion or 19.82% of the national GDP of 14,837 trillion. The second largest contribution was the trade sector with a value of 1,932 trillion or 13% of GDP and the third largest was the construction sector at 1,562 trillion or 11% of GDP as can be seen in the figure below:

**Figure 1: Sectoral Contribution on Gross Domestic Product (GDP) 2018  
Based on Central Statistics Agency (BPS)**



Source : Databoks, 2020



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Property, real estate and construction companies have the opportunity to continue to grow and develop, especially in Indonesia. Based on a macroeconomic perspective, the property, real estate and construction industry has a very broad scope of business so that the excitement of the property, real estate and construction business will affect economic growth. Santosa (2005) argues that property is also an important indicator of a country's economic health. Because this sector is the first to signal the fall or rise of the country's economy. Based on data from the Central Statistics Agency (BPS), the contribution to Gross Domestic Product (GDP) in 2016 was 10.38%, in 2017 the contribution of construction was stagnant, namely 10.38% to GDP, while in 2018 it increased by 11.11%. The contribution of the real estate sector to GDP in 2016 was 2.82%, while in 2017 the real estate sector experienced a decline in 2017 to 2.79% of GDP, and in 2018 the contribution of the real estate sector was only 2.74%. This can be a consideration for investors for investing in companies. The tight competition in the business world makes company management competing to attract investors to invest their funds in their companies. One way to attract investors is by looking at the performance of financial statements. According to Kasmir (2013) financial statements are reports that show the company's current financial condition or the future period. The purposes and objectives of the financial statements indicate the company's financial condition which can be used as consideration in making decisions for the users of financial statements.

The tendency of investors to look more at the size of a company's profit in deciding to do investment. However, not a few companies have experienced failures because the resulting profits have decreased, there are also those who experience unstable profit conditions due to the impact of the global economy. The condition of unstable profit conditions is a threat to the company because it will have an impact on investors who have invested or who have not invested in the company. This puts pressure on the company's management to make every effort so that the profits generated by the company can attract investors to invest or even increase their investments. This condition provides an opportunity for management to manipulate financial statements based on the information it has. One form of this action is the practice of income smoothing, which is basically an action that is considered contrary to company goals (Widyaningdyah, 2001). Michelson (2000) argues that income smoothing is carried out by management with specific goals. Income smoothing targets are usually carried out in activities that can be used by management to manipulate financial information.

The income smoothing action is aimed at presenting a relatively stable profit figure from year to year so as to be able to maintain the company's reputation in a good position. The company's reputation is important to improve and maintain because it includes continuous assessment of an organization's ability to provide valuable results for its stakeholders. A reputable real estate and property industry tends to do income smoothing because it wants to increase management compensation and company reputation. Thus, the income smoothing index of the real estate and property industry in good standing is different from the real estate and property industry that has a bad reputation.

### 2. LITERATURE REVIEW

Agency theory is a concept that explains the contractual relationship between the principal and agent principals, which is the party that mandates the other party, namely the agent, to carry out all activities on behalf of the principals in their capacity as decision makers. Agency theory intends to solve problems that occur in agency relationships. One of them is the problem of the conflicting interests or goals of the principal and the agent and when the principal finds it difficult to trace what the agent actually does. (Arrozi, 2008). Based on research by Watts and Zimmerman (1986), it is empirically proven that the relationship between agents and principals is often determined by accounting numbers (Widyaningdyah, 2001). This encourages management as an agent to try to process accounting figures in such a way through a systematic way by selecting certain methods / policies so that the accounting figures (profits) reported from period to period can actually achieve the desired final goal (Muchammad, 2001).

Income Smoothing is a form of earnings management that is most often carried out and the most popular, through income smoothing, managers increase or decrease profits to reduce reported



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fluctuations in profits so that the company looks stable or is not at high risk. According to Belkaoui (2011), income smoothing is a reduction in profit fluctuation from year to year by moving income from years with high income to less profitable periods. Therefore, income smoothing includes the use of certain techniques to reduce or increase the amount of profit in a period equal to the amount of profit in the previous period (Salno and Baridwan, 2000). These actions deliberately done by management to achieve the desired profit position in the report profit and loss company in order to attract market interest in investing, because of the attention of investors often only focus on the procedures companies use to produce earnings information (Subekti, 2005)

According to Harahap (2005), income smoothing is usually carried out in various ways, namely adjusting the timing of the transaction. Management can determine the time when the actual transaction occurs so that the effect on income reporting tends to reduce the variation from time to time. Often, the planned time from which an event occurs (for example research and development) will be a function of the accounting rules governing the accounting recognition of the event. According to Herry (2017), income smoothing is classified into operating manipulations and accounting manipulations. Operating manipulation deals with trying to change operating decisions that affect the flow of funds and net income for a period. Meanwhile, accounting manipulation is related to the use of flexibility in accounting methods to change the amount of profit. According to Suwito and Arleen (2005) income smoothing can go through several dimensions income smoothing, namely: (1) smoothing income through events or recognition of an event, (2) income smoothing through allocations during a certain period, (3) income smoothing through classification. This income smoothing action is usually carried out to reduce taxes, increase the confidence of investors who think stable profits will reduce stable dividend policy and maintaining the relationship between managers and workers for reduce volatility in profit increases in earnings reporting which is quite sharp.

### 3. RESEARCH METHODOLOGY

The data source used in this research is secondary data in the form of financial statements. In this study, the object used is the eckel index measurement to measure income smoothing of property, real estate and construction companies that carry out income smoothing for the 2016-2019 period. The research method used by researchers to find and get answers to the problems under study is a quantitative descriptive research method which is a research conducted to determine the value of a variable with other variables and without the need to relate with other variables, where these variables process data with numbers.

The population in this study are property, real estate and construction companies listed on the Indonesia Stock Exchange. The sample selection used in this study used a purposive sampling method with criteria, namely property, real estate and construction companies listed on the Indonesia Stock Exchange for the period 2016 to 2019, the company published a complete and audited financial report and the company did not experience a loss. The number of research samples observed in this study were 54 companies consisting of 43 property and real estate companies and 11 construction companies.

**Table 1: Sample Selection**

Criteria	Amount
Property, real estate and construction companies listed on the Indonesia Stock Exchange for the period of 2016-2019	83
Companies that don't publish complete and audited financial reports	(26)
Companies that suffered losses for the periode of 2016-2019	(3)
<b>Total Amount</b>	<b>54</b>

Source: Data Process, 2020

The data analysis technique of this study is descriptive statistical analysis technique. So the data that has been collected will be used as research samples and identified using descriptive statistical analysis



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to provide an overview of the overall data used to explain how much the income smoothing index value, the lowest value, the average value and the standard deviation in a research sample. So it can be classified as the value with the greatest status is 1, it can be said that the company does income smoothing and the smallest value is 0, it can be said that the company does not do income smoothing. In this study, the research variable used is income smoothing. The practice of income smoothing is measured using the Eckel index approach (Eckel, 1981). Eckel index is used to determine companies that do income smoothing with companies that do not. The income smoothing index is calculated using the following formula:

$$\text{Income Smoothing Index} = \frac{CV\Delta I}{CV\Delta S}$$

Description:

Information :

$\Delta I$  : Change in profit over a period

$\Delta S$  : Change in sales within one period

CV : The coefficient of variation of the variable, namely the standard deviation of the expected value

CV $\Delta I$  : The coefficient of variation for changes in profits

CV $\Delta S$  : The coefficient of variation for changes in sales

$$CV\Delta I \text{ or } CV\Delta S = \frac{\text{Standard Deviation}}{\text{Expected Value}}$$

or

$$CV\Delta I \text{ dan } CV\Delta S = \frac{\sqrt{\sum(\Delta I - \Delta X)^2}}{n-1} : \Delta X$$

If  $CV\Delta I \geq CV\Delta S$  or  $\text{Income Smoothing Index} > 1$ , then the company is not classified as a company that carries out income smoothing actions, while  $CV\Delta I < CV\Delta S$  or  $\text{Income Smoothing Index} < 1$  means that the company is classified as a company that carries out income smoothing action (Lila, 2013)

## 4. RESULTS AND DISCUSSIONS

### Descriptive Statistics

According to Ronald E. Walpole in Rachmat (2015), descriptive statistics are methods related to the collection and presentation of a data cluster so that it provides useful information. The results of descriptive statistics in this study can be seen in table 2 below:

**Table 2: Descriptive statistics**

	N	Min	Max	Mean	Std. Dev
Indeks Eckel	54	-140,26	17,69	-1,64805	19,76815
Status	54				
Valid N (Listwise)	54				

Source: Data Process, 2020

Based on the data in Table 2, the descriptive statistics show that the highest value of the income smoothing index with the Eckel index approach is 17.69, the lowest value is -140.26, the average value for the income smoothing index is -1.64805 with a standard deviation of 19,76815. While the largest status value is 1 and the smallest value is 0 (1 states that the company practice income smoothing and 0 states that the company does not practice income smoothing).

### Income Smoothing Analysis: Eckel Index Approach

Based on the results of calculations using the Eckel index approach, it can be seen that property, real estate and construction companies identified as practicing income smoothing. The income smoothing variable is measured using a dummy variable to differentiate between companies that are proven to be identified as practicing income smoothing with a value of 1 (one) and companies that are not proven to be identified as practicing income smoothing are given a value of 0 (zero). The following are the results of the research using the Eckel index approach, it is proven that as many as 32 companies out



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of 54 companies identified as practicing income smoothing consisted of 28 property and real estate companies and 4 construction companies while as many as 22 companies were not proven to be identified as practicing income smoothing can be seen in table 3 below:

**Table 3: Research Results**

No	Company Code	Indeks Eckel	Dummy	Description	Industrial Sector
1	APLN	0,80	1	Practice income smoothing	Property and real estate
2	ASRI	-1,05	0	Not practice income smoothing	Property and real estate
3	ELTY	2,59	0	Not practice income smoothing	Property and real estate
4	BAPA	-0,02	1	Practice income smoothing	Property and real estate
5	BEST	-140,26	1	Practice income smoothing	Property and real estate
6	BIPP	-6,40	1	Practice income smoothing	Property and real estate
7	BIKA	1,77	0	Not practice income smoothing	Property and real estate
8	BKDP	10,33	0	Not practice income smoothing	Property and real estate
9	BCIP	-0,78	1	Practice Income smoothing	Property and real estate
10	BSDE	1,01	0	Not practice income smoothing	Property and real estate
11	CTRA	0,42	1	Practice income smoothing	Property and real estate
12	COWL	0,93	1	Practice income smoothing	Property and real estate
13	SCBD	2,94	0	Not practice income smoothing	Property and real estate
14	DART	0,87	1	Practice income smoothing	Property and real estate
15	DUTI	0,34	1	Practice income smoothing	Property and real estate
16	LCGP	2,27	0	Not practice income smoothing	Property and real estate
17	FMII	0,74	1	Practice income smoothing	Property and real estate
18	GAMA	0,70	1	Practice income smoothing	Property and real estate
19	GMTD	0,64	1	Practice income smoothing	Property and real estate
20	GWSA	-0,47	1	Practice income smoothing	Property and real estate
21	OMRE	0,86	1	Practice income smoothing	Property and real estate
22	DILD	-1,03	1	Practice income smoothing	Property and real estate
23	JRPT	2,13	0	Not practice income smoothing	Property and real estate
24	KIJA	-21,64	1	Practice income smoothing	Property and real estate
25	LPCK	1,88	0	Not practice income smoothing	Property and real estate
26	LPKR	-1,47	1	Practice income smoothing	Property and real estate
27	MMLP	1,40	0	Not practice income smoothing	Property and real estate
28	EMDE	1,80	0	Not practice income smoothing	Property and real estate
29	MTSM	-0,25	1	Practice income smoothing	Property and real estate
30	MKPI	0,64	1	Practice income smoothing	Property and real estate
31	MTLA	7,20	0	Not practice income smoothing	Property and real estate
32	MDLN	0,65	1	Practice income smoothing	Property and real estate
33	PWON	7,77	0	Not practice income smoothing	Property and real estate
34	GPRA	0,20	1	Practice income smoothing	Property and real estate
35	RODA	1,17	0	Not practice income smoothing	Property and real estate
36	PLIN	-0,63	1	Practice income smoothing	Property and real estate
37	PPRO	0,56	1	Practice income smoothing	Property and real estate
38	RBMS	-1,79	1	Practice income smoothing	Property and real estate
39	RDTX	-1,73	1	Practice income smoothing	Property and real estate
40	BKSL	0,62	1	Practice income smoothing	Property and real estate



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41	TARA	3,50	0	Not practice income smoothing	Property and real estate
42	SMRA	-0,86	1	Practice income smoothing	Property and real estate
43	SMDM	0,44	1	Practice income smoothing	Property and real estate
44	ACST	-3,78	1	Practice income smoothing	Construction
45	ADHI	1,10	0	Not practice income smoothing	Construction
46	IDPR	0,24	1	Practice income smoothing	Construction
47	JKON	4,16	0	Not practice income smoothing	Construction
48	DGIK	5,11	0	Not practice income smoothing	Construction
49	NRCA	1,22	0	Not practice income smoothing	Construction
50	PTPP	0,88	1	Practice income smoothing	Construction
51	SSIA	2,87	0	Not practice income smoothing	Construction
52	TOTL	17,69	0	Not practice income smoothing	Construction
53	WSKT	2,22	0	Not practice income smoothing	Construction
54	WIKA	0,49	1	Practice income smoothing	Construction

Source : Data Process, 2020

Table 3 shows the results of the research based on the eckel index calculation which states which companies carry out income smoothing actions. The results of this study can be used as a material consideration for the parties who use the report, especially investors in assessing the company's performance so that investors are more careful and not wrong in investing their capital to invest. In addition, the results of this study also provide contributions and references for investors to decide to increase their investment in the company if they already invest in the company or decide not to invest.

### 5. CONCLUSION

Based on the results of the discussion above, it can be concluded that of the 54 sample companies in the study, there were 32 companies consisting of 28 property and real estate companies and 4 construction companies that were proven to have been identified as carrying out income smoothing actions, while 22 companies were proven not to take income smoothing actions. Based on the results of this study, it can provide contributions and considerations for the parties who use financial statements, especially investors in assessing a company so that they can be more careful in deciding whether to invest. With the results of this study, investors can decide whether the company really has real and stable profits or even a deviation because it can have an impact on the returns received by investors when investing.

### LIMITATION AND STUDY FORWARD

The limitation in this study is that it only analyzes the income smoothing variable, without connecting with other variables or being related to the determinants of income smoothing variables. The suggestion from this research is that it is hoped that further research can analyze the income smoothing variables with the factors that affect income smoothing so that the research results are more accurate.

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## TALENT MANAGEMENT, SELF-EFFICACY, AND JOB SATISFACTION: A CASE STUDY OF HOTEL EMPLOYEE IN PALEMBANG

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### Abstract

**Purpose:** The aim of this study was to determine the effect of talent management and self-efficacy, both partially and simultaneously on the job satisfaction of hotel employees in Palembang.

**Research Methodology:** The population in this study were employees at five-star hotels in Palembang City, South Sumatra Province. The sampling method used was the determination of hotel samples by proportional stratified random sampling. Respondents in the study were 99 employees of star hotels in the city of Palembang. The instrument for measuring the variables in this study was a questionnaire distributed to respondents. The questionnaire was measured using a Likert scale of 1-5. The data analysis technique used is multiple linear analysis.

**Results:** The results of the study concluded that talent management and self-efficacy partially had a positive and significant effect on the job satisfaction of employees working in hotels in Palembang. The results also show that talent management and self-efficacy simultaneously also have a positive and significant effect on the job satisfaction of employees who work in hotels in Palembang.

**Limitations:** This research is limited in the number of respondents and the variables studied. This study is expected to be a reference for other researchers who want to examine job satisfaction on employees working in the hospitality sector.

**Contribution:** Research conducted in depth on efforts to improve employee performance and job satisfaction through talent management and self-efficacy. The proposition of the variables in this study has never been studied before in the unit of analysis, especially in the star hotels in Palembang, South Sumatra.

**Keywords:** *Talent Management, Self-Efficacy, Job Satisfaction, Hotel Employee*

## 1. INTRODUCTION

The ability of an organization to survive in an uncertain situation is greatly influenced by human resources running the wheels of the organization. How to get, manage and treat the best talent in the organization is one of the keys to organizational success in order to grow, develop and have a competitive advantage. The company as an organization does not only compete to attract people who have the ability and talent to work in their company, but employees who have the talent and abilities deserve to be maintained. every organization is required to be able to optimize human resources and how human resources are managed. Human resource management cannot be separated from the factors of employees who are expected to perform as well as possible in order to achieve organizational goals for the company. Humans are a very important resource in an organization to achieve organizational goals. Along with the times, science and technology are fast demanding quality human resources in carrying out the vision and mission of an organization. In addition to technology, other supporting facilities in the organization, namely talent management, self-efficacy, and job satisfaction have a very important role in creating a good work environment that can provide employee work motivation and a harmonious work relationship between employees. Therefore, the role of human resources must always be developed to create a good performance for employees in an organization. Achieving good results by an employee can increase his satisfaction at work. This condition can also improve the performance of an organization where the employee works.



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Organizations with more satisfied employees tend to have higher performance than organizations with fewer satisfied employees.

Palembang as the capital city of South Sumatra Province has experienced rapid growth of new hotels in tandem with national and international events. According to data from the Badan Pusat Statistik in 2018 in South Sumatra Province, there were 86 units of star hotels and 351 units of non-star hotels, while the number of rooms consisted of 7,379, the previous year 2017 in South Sumatra there were 74 star hotel units with 6,078 rooms. The number of foreign guests staying at star hotels in 2018 was 1,839 people (3-star hotels), 8,155 people (4-star hotels), and 2,667 people (5-star hotels); while the number of domestic guests was 434,336 people (3-star hotels), 332,924 people (4-star hotels), and 133,231 people (5-star hotels) (BPS Sumatra Selatan, 2018). Research on talent management and self-efficacy which affects job satisfaction is still relatively limited in hotels, especially in Palembang, South Sumatra. On the basis of this research gap, this research was conducted in several star hotels in Palembang, South Sumatra. The aim of this study was to determine the effect of talent management and self-efficacy, both partially and simultaneously on the job satisfaction of hotel employees in Palembang.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Group View Theory

According to this theory, employee job satisfaction does not depend on meeting needs alone but is highly dependent on the views and opinions of the group which employees consider as the reference group. The reference group is used by the workers as a benchmark for assessing themselves and the environment. So, employees will feel satisfied if the results of their work are in accordance with the interests and needs expected by the reference group.

### Job Satisfaction

Gibson, Ivancevich, and Donnelly (2000) state that "job satisfaction as workers' attitudes about their work, which is the result of their perception of work" (job satisfaction is the attitude that workers have about their job, which is the result of their perception of work. they're about work). The factors that provide job satisfaction according to Blum (1956) are as follows: (1) Individual factors include age, health, character and expectations; (2) Social factors include kinship, community views, creative opportunities, trade union activities, political freedom, and social relations; (3) The main factors in work include wages, supervision, job security, working conditions, and opportunities to advance. In addition, there is also respect for skills, social relations at work, accuracy in resolving conflicts between humans, feelings of being treated fairly both personal and duty (As'ad, 2004).

Smith, Kendall, & Hullin measure job satisfaction using the Job Descriptive Index (JDI) which includes job satisfaction, rewards, promotion opportunities, supervision, and co-workers (Smith, Kendall & Hullin, 1969). Job satisfaction is achieved when an employee's job is in accordance with the employee's own interests and abilities. Workers tend to have jobs that allow them to use their skills and abilities and offer a variety of tasks, freedom and feedback about how well they are doing. Jobs that are less challenging tend to be boring, while jobs that are too challenging tend to create frustration and a sense of failure. Under moderate-challenging conditions, most workers will experience pleasure, satisfaction, and pride in their work.

Satisfaction with Rewards where employees feel that the salary or wages they receive is in accordance with their workload and is equal to other employees working in the organization. The tendency of workers in wanting an income system that is believed to be fair and in line with their expectations. When workers consider that the income received, including benefits commensurate with the demands of the job, level of expertise, and the same applies to other workers, then satisfaction will arise. Rewards are also in the form of facilities provided by the organization. Hospital facilities, leave, pension funds or housing are the standards of a position and if they can be fulfilled, it will create a feeling of satisfaction (As'ad, 2004). Satisfaction with Supervision of Supervisors is manifested when



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employees feel they have a superior who is able to provide technical assistance and motivation. Satisfaction with coworkers is achieved. Employees are satisfied with colleagues who are able to provide technical assistance and social encouragement. Promotion opportunities materialize opportunities to increase positions in the organizational structure.

### **Talent Management**

The term talent management was introduced by Mc. Kinsey and Company Following a study conducted in 1997. Talent management has many meanings, many approaches and many understandings. Talent management has been used by many companies in the world because they realize that the talents, talents and skills of employees are one of the factors supporting their business to be more successful. Pella and Inayati (2011: 82) define talent management as a process to ensure the company's ability to fill key future leadership positions (Future Leaders) and positions that support the company's core competencies (Unique Skill and High Strategic Value). Furthermore, Pella and Inayati (2011: 82) add about talent management as follows: "Talents are people that the company wants to nurture because of their strengths, talent can also be interpreted as employees who are identified as having the potential to become future leaders of the company"

Talent management can also be described as an activity that is broad in nature, complete to develop a group of people with the highest profession in the organization through integrated development, which should be carried out by relevant leaders in the company, related to the activities of talented employees, selecting them, developing them and maintaining them (Pella and Inayati, 2011: 82). Based on the opinions of the above experts, talent management can be concluded as a process to identify company employees who have the capability to fill key positions in the company.

In the concept of talent management, creativity is the most important essence. So that organizational management is adjusted to the concept of talent that has been designed by the company. The term talent management has been replaced by "talent development". So that to create a work environment in accordance with the qualifications needed by the company, it is necessary to identify talents, development and exploitation.

Isanawikrama (2016) defines that talent management is a concept starting from how to plan, acquire, develop, and maintain talent. In other words, talent management is not just a single process or how a development program works but includes a series of processes. Nisa (2016) suggests that talent management is a process of identifying a series of initiatives. In addition, how are the company's efforts to develop and retain talented employees? To create business excellence and achieve the company's vision, it requires an employee alignment according to their expertise.

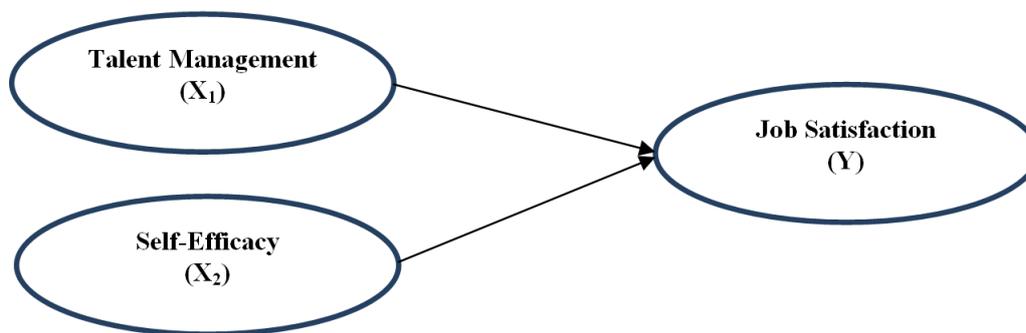
### **Self Efficacy**

According to Bandura (2010), self-efficacy is a person's belief that he or she can control a situation and produce positive outcomes. According to Sigiuro and Cahyono (2010), self-efficacy affects students in choosing their activities. Students with low self-efficacy may avoid lessons that have a lot of tasks, especially for challenging tasks, while students with high self-efficacy have a great desire to do their tasks. Luthan (2014: 338) states that self-efficacy refers to self-confidence regarding its ability to motivate cognitive resources and actions needed to be successful in carrying out certain tasks. Meanwhile, according to Chasanah (2008) indicators of self-efficacy are feelings of being able to do work, better abilities, pleasure in challenging jobs and job satisfaction. So in general, it can be concluded that self-efficacy is leading to an individual's assessment of his ability to carry out certain tasks and produce results.

Bandura and Locke (2003) explain how self-efficacy regulates functions in humans through cognitive, motivational, affective, and decision processes so that it can influence individual behaviour in increasing or decreasing effort and how to motivate themselves and be persistent in facing difficulties. In the research of Cervone and Peake (1986), it shows that if changes in self-efficacy are well controlled or in other words, there is no change in self-efficacy, then there will be no effect on

achievement motivation. Robbins (2016), found that adequate self-efficacy in individuals is one of the factors that can affect the relationship between goal setting and performance. Robbins (2016) explains that self-efficacy is a person's belief in his ability to be able to carry out tasks well. The more someone has high self-efficacy, the more confident the individual will have in his ability to do his job.

Self-efficacy is formed by two main factors, namely: direct experience and vicarious experience. Direct experience is related to the experience of receiving reciprocity from work that has been done repeatedly. Vicarious experience is related to the performance appraisal of others in the implementation and completion of certain tasks (Greenberg and Baron, 2003). Self-efficacy plays an important role in behaviour in an organization. Individuals with high self-efficacy tend to be happy in their work and in life in general. In addition, these individuals also innovate more often in their work. In the context of the business world, entrepreneurs with high self-efficacy will tend to feel happy and enjoy the business they are running. The entrepreneur will find it easier and more confident in solving the various kinds of business problems he faces.



**Figure 1: Theoretical Framework**

### Hypothesis

Based on the literature review, the following hypothesis can be formulated:

1. Talent management has a significant effect on job satisfaction of hotel employees in Palembang.
2. Self-efficacy has a significant effect on job satisfaction of hotel employees in Palembang.
3. Talent management and self-efficacy simultaneously have a significant effect on job satisfaction of hotel employees in Palembang.

### 3. RESEARCH METHODOLOGY

The population in this study were employees at five-star hotels in Palembang City, South Sumatra Province. The number of samples to be taken in this study were taken from 56 star hotels. The sampling method used was the determination of hotel samples by proportional stratified random sampling. This technique is used when the population has elements that are not homogeneous and proportionally stratified. Respondents in the study were 99 employees of star hotels in the city of Palembang.

The instrument for measuring the variables in this study was a questionnaire distributed to respondents. The questionnaire was measured using a Likert scale of 1-5. In this study, each questionnaire question must meet valid and reliable data quality. The instrument in this study was declared valid if the data obtained could accurately answer the research objectives to be achieved. It is declared reliable if the same research instrument can be consistent or stable when it is reused in further research.



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Classic assumption testing is needed to determine whether the estimation results carried out are completely free of heteroscedasticity symptoms, multicollinearity symptoms, and autocorrelation symptoms. The regression model can be used as an unbiased estimation tool if it meets the BLUE (Best Linear Un] Estimator) requirements, which is no heteroscedasticity, no multicollinearity, and no autocorrelation. The data analysis technique used is multiple linear analysis.

### 4. RESULTS AND DISCUSSIONS

Respondents in this study were 99 people consisting of 57 male respondents (57.6%) and 42 female respondents (42.4%). Most of the respondents' education level is Senior High School (78.8%), Bachelor degree (10.1%), Diploma degree (9.1%), and Master degree (2.0%).

The instrument in this study has met the stages in the instrument test, namely the validity test and reliability test. All statement items in the instrument are declared valid and reliable in accordance with the principles in the instrument test. The regression model used as an estimation tool in this study has also met the requirements of BLUE (Best Linear Unbiased Estimator), consisting of, there is no heteroscedasticity, no multicollinearity, and no autocorrelation. Furthermore, multiple linear regression tests were carried out with the results as shown in table 4.1. following.

**Table 4.1: Multiple Linear Test Results**

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
(Constant)	11.821	4.498		2.628	.010
1 TM	.483	.085	.532	5.650	.000
SE	.641	.181	.333	3.535	.001

a. Dependent Variable: Job Satisfaction

Source: Primary data processed

Based on Table 4.1. above, it was found that the influence of the talent management variable has a significant positive effect on the job satisfaction variable, it can be seen from the significance of 0.000 below 0.05, so that hypothesis 1 is accepted. The results also show that the self-efficacy variable has a positive and significant effect on job satisfaction. This is indicated by the significance value of 0.001 below 0.05, so that hypothesis 2 is accepted. Furthermore, the ANOVA test results are presented in table 4.2. following.

**Table 4.2: ANOVA test results**

Model	ANOVA <sup>a</sup>				
	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	8134.901	2	4067.451	98.619	.000 <sup>b</sup>
Residual	3959.422	96	41.244		
Total	12094.323	98			

a. Dependent Variable: Job Satisfaction

b. Predictors: (Constant), SE, TM

Based on Table 4.2. above, it was found that the simultaneous influence of the variable talent management and self-efficacy has a significant positive effect on the job satisfaction variable, seen



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from the significance of 0.000 below 0.05, so hypothesis 3 is accepted. The test results for the coefficient of determination are presented in table 4.3. following.

**Table 4.3: Result of the coefficient of determination**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 <sup>a</sup>	.673	.666	6.422

a. Predictors: (Constant), SE, TM

Based on table 4.3. above, the R Square value is 0.673, which means that the variable talent management and self-efficacy has an effect on job satisfaction by 67.3%, while the remaining 32.7% is influenced by other variables outside of this study.

### 5. CONCLUSION

The results of the study concluded that talent management and self-efficacy partially had a positive and significant effect on the job satisfaction of employees working in hotels in Palembang. The results also show that talent management and self-efficacy simultaneously also have a positive and significant effect on the job satisfaction of employees who work in hotels in Palembang. This study is expected to be a reference for other researchers who want to examine job satisfaction on employees working in the hospitality sector.

### ACKNOWLEDGMENT

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## GOOD CORPORATE GOVERNANCE, ECONOMIC PERFORMANCE AND SUSTAINABILITY REPORT

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### Abstract

**Purpose:** The purpose of this study was to determine the effect of independent board of commissioners, managerial ownership and leverage in manufacturing companies listed on the Indonesia Stock Exchange (BEI).

**Research Methodology:** The population from of this research used 13 manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the period 2015-2018. The sampling technique using purposive sampling technique, The analysis method used is panel data regression analysis with Eviews.

**Results:** The results show that the independent board of commissioners has no effect on the sustainability report, managerial ownership has a positive significant effect on the sustainability report and leverage has a significant negative effect on the sustainability report.

**Limitations:** The topic of the Sustainability Report which is still rarely researched, and the theory framework that is not yet strong, results in difficulties in determining the theory used and analyzing the research results.

**Contribution:** this study can be useful to Investor for decision-making, the company for knowledge environmental impact in around company and the last for the next researcher, so that this research can be further developed.

**Keywords:** *Independent board of commissioners, managerial ownership, leverage and sustainability report*

### 1. INTRODUCTION

In general, companies have the same goal, namely to make a profit. The profit generated by the company is an absolute requirement for the survival of the company in order to survive in any condition. Therefore, the company management must make efforts or actions to get maximum profit. If the company gets maximum profit, it will develop and be able to survive (Zanjabil and Adityawarman 2015).

In fact, the middle and upper scale industries or companies have been able to have an influence on the national economy, but on the other hand, not a few local communities have had a bad impact from the company's activities. Currently, many environmental problems are in the spotlight. Many disasters have recently occurred in almost all regions in Indonesia. Issues related to the real environmental pollution are cases of PT Lapindo Brantas mudflow in Hamlet Balonglong Village, RenokengoPorong district, Sidoarjo regency, East Java. The case began in 2006 and continues until today, where the hot mudflow for several months inundated residential, agricultural and industrial areas in three surrounding sub-districts, and affected economic activity in East Java ([www.liputan6.com](http://www.liputan6.com), 2006). Similar cases of forest fires in Sumatra and Kalimantan since 2015 were carried out by several companies for the purpose of clearing land ([www.dw.com](http://www.dw.com), 2018). Another case of environmental damage is the chimney of PT Indah Kiat Pulp And Paper (IKPP) in 2017 in Tualang District, Perawang Village, Siak Regency, Riau Province. The Singer CASE Happened because since the establishment of the company there has been NO renovation so that the seepage of waste has leaked into the walls of the waste ditch, which pollutes air sources and rivers around the factory. The impact on society is the smell of waste that is very strong when the weather starts to get cloudy, people cannot enjoy the morning sun, the pours smoke from the factory, and many of the people have been



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affected by diseases caused by this pollution. Pollution from factories is an undeniable fact, with the expansion and expansion of factories in a sustainable manner, resulting in an imbalance of environmental absorption with the air pollution they present. The emission and bad smell produced by PT Indah Kiat are common sniffs by Perawang City residents, this is a fact that the company is not friendly to the environment. The chairman of LMR (Laskar Melayu Rembuk) has also made a petition through change.org and spread it on social media Facebook aimed at President Jokowi, where the petition aims to make the Perawang people's complaints heard by the President and the Minister of Forestry Environment ([www.goriau.com](http://www.goriau.com), 2017).

Because there have been many negative impacts from companies that lack of concern for the surrounding environment, the government has issued several laws for this issue, including referring to (Undang-Undang No. 40 Tahun 2007 Tentang Perseroan Terbatas 2016) Article 1 paragraph 3, namely social and environmental responsibility, is the company's commitment to participate in economic development, both the company itself, the local community, and society in general, (UU Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup 2015) concerning Environmental Protection and Management, its application in the industry by Government Regulation No. RI. 74 of 2001 concerning Management of Hazardous and Toxic Materials, as well as the issuance of Regulation of the Minister of Environment No. 05 of 2011 concerning the Company Performance Rating Program in Environmental Management.

Based on the issues mentioned above, the relationship between environmental impacts due to industrial processes and disclosure of sustainability reports is based on the legitimacy theory that company performance will be legitimized because of the support from the community. And it is very possible that there will be a violation of the law, namely the company that is responsive between the company and the surrounding community. If it is like this, the sustainability of the company can be threatened because public trust will decrease, investors will definitely also withdraw their cooperation with the company. Seeing the possible impacts, it is very important to take part in the surrounding environment, so that the company and the environment always maintain its continuity. Thus, companies really need legitimacy for their business continuity.

Research (Aniktia and Khafid 2015) explains that the existence of an independent board of commissioners as part of the implementation of good corporate governance will encourage the possibility of companies to disclose sustainability reports. Research conducted by (Aliniar and Wahyuni 2017) shows that the independent board of commissioners has a positive effect on disclosure of sustainability reports. Different research results conducted by (Aniktia and Khafid 2015) indicate that the independent board of commissioners has no significant effect on the disclosure of sustainability reports. Companies with large independent commissioners tend to disclose more social information because independent boards of commissioners function as monitors of the openness process and provide information to affiliated parties in the company.

Research conducted by (Aziz 2014) shows that managerial ownership has a significant positive effect on disclosure of sustainability reports. Meanwhile, research conducted by (Adhipradana and Daljono n.d.) shows that managerial ownership has no significant effect on the sustainability report.

Research conducted by (Rahardjo n.d.) shows that there is a significant effect on the disclosure of sustainability reports. Meanwhile, conducted by (Aniktia and Khafid 2015) which states that research has a negative effect on disclosure of sustainability reports.

Mandatory or mandatory disclosure of sustainability reports needs to be studied further. The mandatory nature is due to the existence of a Government Regulation that requires every company to review disclosing social and environmental responsibilities. Because, also, the role of government is also very important to control this problem.



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### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Each company will cooperate with its legitimacy, because legitimacy can help to ensure the continuity and sustainability of income, workers and the company itself. Legitimacy is important in this research because legitimacy will determine the condition of a company in the future. When a company operates according to the rules that apply in the community and does not do so, the company will get the trust and support of the surrounding community in every decision made by the company.

This can be realized company-friendly can make it happen. The existence of a conflict or interest of interest between the agent and the principle is one of the reasons why the company is unable to realize the company's goals, especially in the company's responsibility for the impact of the environment surrounding. Conflict These interests can be reduced by implementing corporate governance as guidance and controlling the company. Corporate governance is one of the key elements in increasing economic efficiency, which includes relationships and complete disclosure of information between company management, the board of commissioners, shareholders, and other stakeholders (Aliniar and Wahyuni 2017).

From the explanation of the relationship between the variables above, the research hypothesis can be drawn as follows:

#### a. The Independent Board of Commissioners and the Sustainability Report

Independent board of commissioners as part of Corporate Governance has an important role in the disclosure of the Sustainability Report because the independent board of commissioners has a big responsibility in every company decision making. This is also in line with a valid theory, where the theory states that independent boards of commissioners have the opportunity to encourage companies to disclose their Sustainability Report. Research conducted by (Aliniar and Wahyuni 2017) proves that the independent board of commissioners has a significant positive effect on environmental disclosure. Based on the description above, the following hypothesis is formulated:

H<sub>1</sub> : The independent board of commissioners has an effect on the Sustainability Report..

#### b. The managerial ownership and the Sustainability Report

Ownership functions as a driving force for companies to disclose social responsibility, namely the Sustainability Report. This is in line with the theory of legitimacy because the manager's role as owner and manager of the company is to always carry out social responsibility for the surrounding environment. Research conducted by (Aziz 2014) disclosing that managerial ownership has a positive relationship artinya baik semakin manajer company the better the company's disclosure. Based on the description above, it is formulated as follows:

H<sub>2</sub> : Managerial ownership affects the Sustainability Report.

#### c. Leverage and Sustainability Report

Based on the theory of legitimacy, companies with a high level of leverage will find it increasingly difficult to disclose social responsibility, this is because companies will be more concerned with paying debts to creditors than having to pay for disclosing their Sustainability Reports. Research conducted by (Aniktia and Khafid 2015) states that the effect has a negative effect on the disclosure of the Sustainability Report. Based on the description above, the following hypotheses can be formulated:

H<sub>3</sub> : Leverage affect the Sustainability Report..

### 3. RESEARCH METHODOLOGY

Based on the sampling criteria, this study used 13 companies engaged in the Manufacturing Industry listed on the Indonesia Stock Exchange in 2015-2018 from a total of 143 companies, so that the data can be processed and obtain a feasible research model, data selection is carried out using a purposive sampling method. The results of the findings are as follows. get that there are 3 companies that have deleted, 2 companies do not publish financial reports, 28 companies do not use the rupiah currency,



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48 companies suffer losses, 6 companies do not issue sustainability reports and 35 companies do not participate in the PROPER program. With the financial data report and the Manufacturing Industry sustainability report for the period 2015-2018, data will be used as a new tool to determine whether the Board of Commissioners is Independent, Managerial Ownership and the influence of influence on the Sustainability Report. In examining the data instudy this, the software Eviews 9.0 was assisted.

After the data has been obtained, the next step is to perform a descriptive statistical test. Descriptive statistical tests performed to determine the image or dissemination of data to be studied, data analysis performed for grouping data based on the variables studied, tabulate data based on variables obtained from the whole sample.

The next step is to determine the appropriate panel data regression model to be used in the regression analysis in this study. The stages in carrying out testing in this research are to obtain the correct panel data regression model. The first stage is the Chow test. The model testing is conducted to select the model used, whether to use the Common Effect Model (CEM) or the Fixed Effect Model. Next, is the Hausman test, this test is used to select the model used, preferably using the Random Effect Model (REM) or Fixed Effect Model (FEM) and finally the Lagrange Multiplier Test, at this stage it is a test to choose which model to use. preferably using the Random Effect Model (REM) or the Common Effect Model (CEM). After the model selection results are carried out, a panel data regression model is suitable for use in this study, namely the Common Effect Model (CEM).

Next comes the classic assumption test. This classic assumption test is used as a statistical requirement that must be met in regression analysis, if the model uses the Ordinary Least Approach Square (OLS) in estimation techniques such as the Common Effect Model (CEM) and Fixed Effect Model (FEM). Then it is obliged to do the test Multicollinearity and Heteroscedasticity. Equations, the more appropriate regression equation is the Random Effect Model (REM) model, so there is no need to do classical assumption tests such as Multicollinearity and Heteroscedasticity, because the Random Effect Model (REM) model uses the General Least Squared (GLS) approach in its estimation technique. Limit level to according test multikolinieritas isis if there no independent variable that has a value of more than 0.8, so it can show no symptoms multicollinearity with the data used in the regression model. The limit for the suitability level of the heteroscedasticity test is if the value is Prob. Breusch-Pagan  $LM > \alpha$  (0.05), so it can be said that there are no symptoms of heteroscedasticity with the data used in the regression model. In accordance with the data regression model used, namely the Common Effect Model (CEM), the results of this test are mandatory for the classical assumption test consisting of multicollinearity and heteroscedasticity. In the results of the test used, it was found that the independent variables that did not occur in this study did not occur multicollinear multicollinearity in the regression model, because the value was more than 0.8. And then, based on the results of the multicollinearity test results, the results show that the value of Prob. Breusch-Pagan LM is  $0.0614 > \alpha$  (0.05), which means that the data used in the panel data regression model does not occur heteroscedasticity.

And lastly is a hypothesis. In conducting this hypothesis testing, 3 types of testing are carried out which are generally mandatory when conducting research with a quantitative data approach. The type of this hypothesis is the f test (test model), this test is done to see whether the regression model used in this study is feasible or not. The limit for the feasibility model that can be used in this test is by the if criteria for the value  $F_{\text{statistic}} > F_{\text{Table}}$  and the value for Prob.  $< 0.05$ . Test is adjusted R and the last this test is done to see the results of the coefficient of determination. Is the coefficient of determination used in this study able to explain the independent variables in the dependent variable. If the larger independent variable is obtained in the results of the is used in this model, the better, because this is the better the independent variable in explaining the dependent variable in this study and finally in the t Test. This examiner is to determine and explain the level of significance of a variable that partially influences the dependent variable. The limit for the level of significance that can be used in this test is the criterion if the value is  $t_{\text{statistical}} > t_{\text{Table}}$  and the value for Prob.  $< 0.05$ . In the feasibility test of this model, the results show that the panel data analysis model has been tested and declared good.



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Based on the results of data processing, namely in the form of the f-test output, it shows that value  $F_{\text{statistic}}$  showed 14,53644, with  $F_{\text{Tabel}}$  value showed 2,80 is obtained from the level  $\alpha=5\%$ ,  $df_1(k-1) = 3$  dan  $df_2(n-k) = 48$ . At the last score  $F_{\text{Statistic}} (14,53644) > F_{\text{Tabel}} (2,80)$  and the value of Prob ( $F$ -Statistic)  $0,000 < 0,05$ . Besides that, the result of adjusted R-squared value showed if the value of adjusted R-squared 0,476036, this means that variations in the Sustainability Report can show the variables of the Independent Board of Commissioners, Managerial Ownership and Leverage of 47.60 percent, while the remaining 52.40 percent that other variables not examined in this study. It can be denied that the relationship between the Independent Board of Commissioners, Managerial Ownership and Leverage and the Sustainability Report has a strong relationship.

After these steps are carried out, it can be seen that the model of the regression equation in this study is as follows:

$$SRDI_{(i,t)} = \beta_0 + \beta_1DKI_{(i,t)} + \beta_2KM_{(i,t)} + \beta_3DER_{(i,t)} + e_{(i,t)}$$

### Keterangan :

*SRDI = Sustainability Report Disclosure Index*

*$\beta_0$  = Constants*

*DKI= Independent Commissioners*

*KM = Managerial Ownership*

*DER = Debt Equity Ratio*

*i = Companies under study*

*t = Period (years) research*

*e = The Error*

following component is an explanation of the panel data regression equation above:

- The constant is 0.372258, which means that if there are no Independent Commissioners, Managerial Ownership and variables, Debt Equity Ratio the Sustainability Report is 0.372258.
- The variable regression coefficient for the Independent Board of Commissioners variable is 0.285158, which means that any increase or decrease in the Independent Commissioner variable does not affect the Sustainability Report 0.285158 because in research the Independent Board of Commissioners variable has no effect on the Sustainability Report.
- Managerial Ownership variable regression coefficient is worth 0.356738, which means that any increase or decrease in Managerial Ownership variables affect Sustainability Report 0,356738 because in this study Managerial Ownership positive effect on the Sustainability Report.
- The variable has a Debt Equity Ratio regression coefficient of -0.271333, which means that every increase or decrease in the variable Debt Equity Ratio affects the Sustainability Report of 0.271333 because in this study the Debt Equity Ratio has a negative effect on the Sustainability Report.

## 4. RESULTS AND DISCUSSIONS

This research is an analysis of what factors affect the Sustainability Report. This research handles 3 independent variables, namely, the Independent Commissioner (DKI), Managerial Ownership (KM) and Leverage (DER) on 1 dependent variable, namely the Sustainability Report on Manufacturing companies listed on the Indonesia Stock Exchange for the period 2015 - 2018. Summary of hypothesis testing results What is proposed in this study can be seen in table 1 below:

**Tabel 1: Hypothesis Results**

No.	Hipotesis	Hasil	Nilai (Hitung) dan ( <i>Prob.</i> )
1	There is not an effect of the Board of Commissioners Independent On Sustainability Report	Rejected	$t_{\text{count}} = 1.625466$ Prob = 0.1106



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2	There is an effect of Ownership Managerial on <i>Sustainability Report</i>	Accepted	$t_{\text{count}} = 3.521640$ Prob = 0.0010
3	There is an effect of <i>Leverage</i> on <i>Sustainability Report</i>	Accepted	$t_{\text{count}} = -5.078497$ Prob = 0.0000

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Sumber : Data di olah, 2020

### a. There is not an effect of the Board of Commissioners Independent On Sustainability Report

From this research, the coefficient of the Independent Commissioner (DKI) is 0.285158 and based on the results of statistical testing, the Prob value is 0.1106 with a significant level  $\alpha = 5\%$  (0.1106 > 0, 05) then the first hypothesis  $H_1$  is rejected, which means that the Independent Commissioner (DKI) has no effect on the Sustainability of the Report.

An independent board of commissioners is a commissioner who is not affiliated or has no business and kinship relationship with the controlling shareholder, members of the board of directors and other commissioners, and with the company itself (Kusuma, Tanjung, and Darlis 2014).

There are several things that are thought to be a very large proportion of the Independent Commissioners that do not have a significant effect on the disclosure Sustainability Report. First, not all members of the Independent Board of Commissioners can demonstrate their independence so that the supervisory function does not run well and does not have an impact on management for the disclosure of the Sustainability Report. Second, the ability of the Independent Board of Commissioners in the context of the process of disclosure and provision of information will be limited to affiliated parties in the company who dominate and can control the Board of Commissioners as a whole. Third, the competence of independent commissioners is not sufficient. (Chartier 2006) in (Wahyuningtyas and Nugrahanti 2006) states that to play an important role in decision making not only the composition of the independent board of commissioners, but also the ability (skills), knowledge, background so that it can improve the quality of decision making at the level of the board of commissioners. The Sustainability Report, and possibly Fourth, the Independent Board of Commissioners has not considered it necessary whether or not there is disclosure CSR in the Sustainability Report (Kusuma, Tanjung, and Darlis 2014a). This is not in accordance with agency theory where this theory supports the independent board of commissioners to affect the Sustainability Report. This is also not in accordance with the theory of legitimacy, where the existence of an independent board of commissioners can oversee the company's management to maintain its legitimacy towards the community, so that the sustainability of the company in the future remains strong.

The results of this study are in line with research (Kusuma, Tanjung, and Darlis 2014) which states that the independent board of commissioners has no significant effect on the Sustainability Report. But contrary to research (Aliniar and Wahyuni 2017) which states that the Independent Board of Commissioners influences the Sustainability Report.

### b. There is an effect of Ownership Managerial on Sustainability Report

From this research, the Managerial Ownership (KM) coefficient is 0.356738 and based on the results of statistical testing, the Prob value is 0.0010 with a significant level of  $\alpha = 5\%$  (0.0010 < 0.05). , then the second hypothesis  $H_2$  is accepted, which means that Managerial Ownership (KM) has a positive effect on the Sustainability Report.

Managerial ownership is the amount of share ownership by management of all share capital of the company being managed (Aniktia and Khafid 2015). Meanwhile, research conducted by



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(Adhipradana and Daljono n.d.) explains that managerial ownership is the number of shares owned by the company's management as a whole.

Research (Aziz 2014) with a theory which states that this theory supports the level of managerial ownership and has a positive effect on the Sustainability Report. Assuming that with the high level of managerial ownership of a company, it is necessary to disclose a Sustainability Report. This is a manifestation of the agency function, where the agent will always pay attention to external factors such as disclosure of the Sustainability Report, to maintain the legitimacy of the company. This function goes hand in hand with safeguarding the interests of the principal, where by disclosing the Sustainability Report the legitimacy of the company will be maintained so that the company's operations will also be guaranteed and ultimately fulfill the desires of the principles in business objectives (Aziz 2014).

This result is in line with the research conducted (Aziz 2014) which states that managerial ownership has a positive effect on the Sustainability Report. But contrary to research (Aniktia and Khafid 2015) and (Adhipradana and Daljono n.d.) which state that managerial ownership has no effect on the Sustainability Report.

### c. There is an effect of Leverage on Sustainability Report

From this research the coefficient Leverage(DER) is -0.271333 and based on the results of statistical testing, the value Probis0.0000 with a significant level of  $\alpha = 5\%$  ( $0.0000 < 0.05$ ), then the third hypothesis H3 is accepted, which means that Leverage (DER) has a negative effect on the Sustainability Report..

*Leverage is a ratio that shows the company's debt* (Aniktia and Khafid 2015). Meanwhile, research conducted by (Nasir, Ilham, and Utara 2014) explains that leverage is a company's ability to meet long-term obligations.

The leverage impact of disclosure Sustainability Report because companies with leverage seek to gain legitimacy from stakeholders (including creditors and investors) through the Sustainability Report. (Aniktia and Khafid 2015) stated that more and more investors are taking sustainability reports into consideration in the decision-making process. Attention to the company's high debt ratio can be diverted through the Sustainability Report. Disclosure of the Sustainability Report can support the support and trust of creditors. Sustainability of information can help lenders to determine risk factors associated with business practices (Rahardjo n.d.). This is in accordance with agency theory, which requires disclosure of financial performance by management to investors that is guaranteed in the relationship between principal and agent. Leverage as a form of financial performance is a means of management accountability to owners. So that as a form of responsibility, the agent will try to fulfill all the wishes of the principal, in this case the disclosure of broader social responsibility.

The results of the study are in line with the research conducted (Rahardjo n.d.), (Nasir, Ilham, and Utara 2014) and (Aniktia and Khafid 2015) which state that Leverage affects the Sustainability Report. However, it contradicts research (Saputro, Fachrurrozie, and Agustina 2013) which states that Leverage has no effect on the Sustainability Report

## 5. CONCLUSION

Based on the results of data analysis and the discussion that has been described, the research of this study is based on the results of the adjusted R-squared analysis, it is found that if the variation of the Sustainability Report can be carried out by variable the Independent Board of Commissioners, Managerial Ownership and Leverage is 47.60 percent, while the remaining 52.40 percent served by other variables not examined in this study. In addition, based on the test results, the results show that there is no influence between the independent board of commissioners and the Sustainability Report, but this is contrary to the relationship between managerial ownership and the Sustainability Report and so is the leverage variable which has an effect on the Sustainability Report.



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## LIMITATION AND STUDY FORWARD

There are several limitations in this study, including the following:

1. The topic of Sustainability Report is still rarely studied in Indonesia, which causes researchers in the country to find it difficult to collect references and in-depth theoretical studies, as well as theoretical frameworks there is not yet strong difficulty in determining the theory used and analyzing the research results.
2. This research has not been able to apply an index that matches the research criteria in disclosing the Sustainability Report, so that researchers have difficulty interpreting environmental management reports made by companies and it is still rare for companies to disclose environmental management activities in their Sustainability Reports, even though the government has issued a Law. No. 40 of 2007, so that researchers find it difficult to determine the sample to be studied.

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## HOW TO IMPROVE APPLICATION SYSTEM TO SURVIVE IN E-WALLETS INDUSTRY

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### Abstract

**Purpose:** The purpose of this research is to empirically prove the influence of perceived risk to consumer decisions in using e-wallet applications non - bank through trust in Palembang

**Research Methodology:** This research will use primary data by distributing questionnaires to 100 users of e- wallet non-bank applications such as GoPay, OVO and Dana who are domiciled in Palembang with a non-probability sampling technique.

**Results:** Consumer decision to use e-wallet non-bank is influenced by consumer trust in e-wallet application. Consumers' perceived risk of e-wallets can also directly influence consumer decisions to use non-bank e-wallets. The factor that most influences consumers' decisions to use non-bank e-wallets is the consumers' perceived risk that may be borne by using these non-bank e-wallet.

**Limitations:** E-wallet that been research only cover the e-wallet non-banking application.

**Contribution:** Research that examines e-wallet facilities, especially non-bank in Indonesia is still rare. Related to marketing science issue, e-wallet is a new consumer behavior phenomenon in Indonesia. The results of the research will develop marketing science, especially in the digital marketing. Digital marketing is the development of technology-based marketing science and still needs to be developed, especially consumer behavior.

**Keywords:** *e-Wallet, Non Bank, Perceived risk, Trust, Consumer Decision*

### 1. INTRODUCTION

Internet users in Indonesia are currently increasing. It can be seen that the percentage growth in internet users in 1 year can reach 10.12%, while the percentage of population growth in 1 year is only 0.63% (APJII, 2018). Currently the island of Sumatra is the second largest internet user (21.6%) after Java (55.7%) according to a 2018 survey report by the Indonesian Internet Service Providers Association (APJII) with South Sumatra as the second largest contributor (3%) after North Sumatra (6.3 %).

The level of public trust in transactions in the online world is quite high. Based on the 2018 APJII survey report 62.8% of internet users feel safe making transactions online. To make it easier for customers, many payment systems using e-wallets have been introduced.

In products / services related to digital finance such as e-wallets, consumer trust in application providers can influence consumer decisions. Several studies state that trust and risk factors can influence consumer decisions in using e-wallets either directly or indirectly ((Nguyen & Huynh, 2018 ; (Lee & Song, 2013) . Based on the results of this previous study, the e-wallet application from the bank will be more trusted because it is more credible than those from non-banks. The interesting thing happened, when it turned out that in Indonesia this did not guarantee the success of an e-wallet application issued by a bank.

Based on the number of active monthly users in Indonesia, applications that are ranked in the top 10 e-wallets in the 2nd Quarter of 2019 on Google Play and iOs are: Gojek, OVO, DANA, Link Aja, Jenius, Go Mobile by CIMB, i -Saku, Sakuku, Doku, PayTren .

Based on the survey results, Go Pay, OVO and DANA are the 3 e-wallet applications with the highest number of active users compared to other applications. The interesting thing is that the three e-wallet



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applications are not bank products. Meanwhile, e-wallet applications from banks such as Go Mobile by CIMB, Jenius from Bank BTPN are currently unable to shift the position of non - bank e-wallets such as Gopay, OVO and Dana, even applications such as Mega Mobile from Bank Mega have shifted out of the top 10 in the 2nd quarter of 2019. This is an interesting phenomenon which turned out to be the bank's credibility as banking and financial institutions were not strong enough to affect the consumers to use e-wallet as the products services that they offer.

Gopay by Gojek as the number one player in the e-wallet industry in Indonesia, not only can be used as a payment for GoJek (online transportation service applications) but also as one of the alternative of a payment method in many various merchants at shopping center or online shop, such as Adidas, The Body Shop, Sociolla, Hijup, Cotton Ink, Rollover Reaction, B Lizzy Parra, Vegetable Box, Locket.com, Tiketux , Naked Press, Eyelovin, Panorama Tours and Code Shop. In addition, Go-Pay also can be used to pay for gold investments in the E-mas application and pay for donations on the Kitabisa.com application.

Meanwhile, OVO collaborates with several partners as one of the alternative of a payment method, such as Bank Mandiri, Alfamart, Moka, Tokopedia and Grab. This partnership have a good impact for OVO in expanding its merchant network because currently 300 thousand merchants make payments through Bank Mandiri. The ease of topping up balances, paying for shopping, and cash withdrawing at 14 thousand Alfamart outlets also supports the use of OVO. In addition, users of the MOKA application, which consists of 10 thousand UMKM (Micro, Small and Medium Enterprises), can also make payments using OVO. Grab as an online transportation application can also make payments via OVO balance.

According to research (Nguyen & Huynh, 2018), it is known that risk and trust play a major role in the structural model of electronic payment adoption. This means that for issues of trust and credibility, banks as financial institutions with experience in the financial sector should be able to influence consumer decisions to use these applications. But the interesting thing that happened in Indonesia was that Gopay, OVO and Dana as the top 3 of non - bank e-wallets in Indonesia were able to beat e-wallets from leading banks in Indonesia. Base on that, it would be an interesting to find the empirical evidence about how much the influence of the perception of the risk toward consumer's decision to use e-wallet non-banks in Palembang through a trust. This result could help the e-wallet industry to improve their system so they could survive in this unsteady world condition due to the pandemic of Covid-19.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This research will develop marketing management science, especially consumer behavior in decision making. Consumer decision making occurs through several stages of the process. Starting with the introduction of needs, the search for information and evaluation of alternatives (Schiffman & Kanuk, 2008). Perceived Risk is one of the important components in information processing carried out by consumers in the decision-making process (Assael, 1998). While trust can be measured by the Perceived Risk (Mukherjee & Nath, 2003) .

Several related studies have been carried out by several researchers, which can be seen in Table 1 below:

**Table 1: Relevant Previous Research**

No.	Title, (Author, year published)	Variable	Analysis technique	Important Results
1.	Extending UTAUT2 to Explore Digital Wallet Adoption in Indonesia  (Widodo, M., Irawan, M. Isa, Sukmono , R. A, 2019)	Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic	PLS-SEM	Trust has a significant influence on behavior intention, with the item the highest loading score is regarding consumer confidence in the security of digital wallets. To anticipate this problem, providers are expected to educate customers about security issues and further



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2.	Factors Impacting the Intention to Use M-Payment (Sun & Havidz, 2019)	Motivation, Price Value, Habit, Perceived Risk, Trust Personal innovativeness, M-Payment Knowledge, Mobility, Reachability, compatibility, convenience, Perceived of usefulness, Perceived ease of use,	SEM with Smart PLS statistical	provide notification messages (SMS) if someone tries to access a consumer's digital wallet account from a different device. The model in this study involves two individual differences and four m-payment features and is equipped with two TAM variables that explain behavior in adopting technology. The results show that <i>Perceived ease of use (PEOU)</i> and <i>Perceived of usefulness (PU)</i> are the most powerful factors affecting the intention to use m-payments. Interestingly, among m-payment characteristics, only compatibility and convenience affect PEOU while mobility and reach do not affect PEOU or PU
3.	The Roles of Perceived Risk and Trust on E – Payment Adoption (Nguyen & Huynh, 2018)	Perceived Risk and Trust, Perceived usefulness, ease of use, e-payment adoption	SEM	The results show that perceived risk and trust play a major role in the structural model of electronic payment adoption
4.	From physical to digital: Investigating consumer behavior of switching to mobile wallet (Alaeddin O., Altounjy R., Zainudin Z., Kamarudin F, 2018)	Perceived usefulness, Perceived Ease of Use, Attitude towards switching, Perceived Risk, Intention of use	PLS SEM	The relationship between attitude and intention is significant while the perceived risk decreases the level of this effect. In this study, Perceived Risk is a moderating variable between attitude to intention to use
5.	Factors Influencing Behavioral Intention to Use the Mobile Wallet in Singapore (Seetharaman, Kumar, Palaniappan, & Weber, 2017)	Perceived usefulness and perceived ease-of-use, Innovativeness, Are TAM and IDT outdated ?, Critical Mass, Availability of Alternatives, Transaction Security and Trust, Privacy and Anonymity, Flexibility	Confirmatory factor analysis (CFA) using PLS	19 hypotheses developed during the study, 11 were strongly supported, 4 were strongly supported, 1 was moderately supported and 3 were not
6.	Active Determinants for Adoption of Mobile Wallet	Perceived quality of service, Perceived risk, Perceived	The Wald statistics	Result shows that the perceived benefits positively influence the intention to use / adopt the mobile phone wallet



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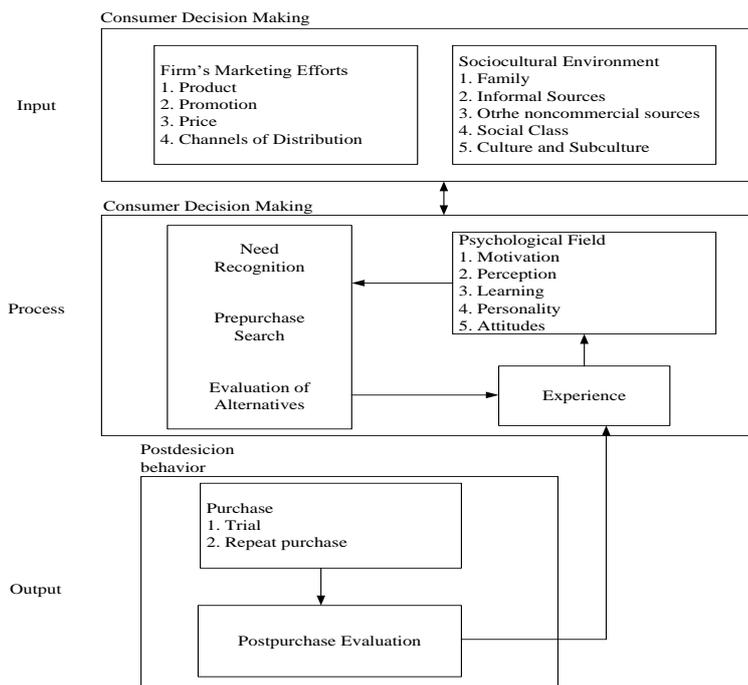
		usefulness, Perceived cost, Perceived ease of use, trust on people to use / adopt mobile wallet.		
7.	Factors Determining the Acceptance of E- Wallet  (Trivedi, 2016)	Perceived of usefulness, perceived of ease of use, subjective norm, perceived of trust, self efficacy to attitude using and to intention using	confirmatory factor analysis using AMOS 21.0	The results determine <i>perceived of ease of use</i> and <i>Perceived of usefulness</i> as factors that influence the acceptance of <i>e- wallet services</i> in India
8.	Effects of Trust and Perceived Risk On User Acceptance of A New Technology Service  (Lee & Song, 2013)	Trust, Perceived Risk, Performance expectancy, effort expectancy, social influence, Behavioral intention of SMC	SEM Analysis	Trust and perceived risk are shown to be direct antecedents of intention to use, and trust serves as indirect antecedents. Performance expectancy and social influence have been shown to positively influence behavioral intention. Effort expectancy is also proven to affect Performance Expectancy. The combination of trust, perceived risk, performance expectations, business expectations, and social influence accounted for 55.3% of the variance observed in users' intentions to use CeDA (Certified e-Document Authority) services.
9.	The impact of trust and perceived risk on internet banking adoption in India - An extension of technology acceptance model  (Kesharwani & Bisht, 2012)	Trust, Website Design, Perceived Behavioral Control, Social Influences, Perceived Risk, Perceived Ease of Use, Perceived usefulness, Behavioral Intention.	Confirmatory Factor Analysis (CFA) with AMOS 16.0.	This paper reveals that perceived risk has a negative impact on internet banking adoption behavioral intentions and trust has a negative impact on perceived risk. A well-designed website was also found to be helpful in facilitating easier use and also minimizing the perceived risk concerns associated with internet banking use.
10.	Perceived Risk, Perceived Technology, Online Trust for the Online Purchase Intention in Malaysia  (Choon Ling, Bin Daud, Hoi Piew, Keoy, & Hassan, 2011)	Perceived of technology, Perceived risk, online trust, online purchase intention	SEM	These findings reveal that perceived technology and perceived risk are positively related to online trust; Online trust is positively related to online purchase intentions and perceived technology is positively related to online purchase intentions. In addition, this finding also concludes that perceived technology is positively related to

*Theoretical basis*

The following are some of the theoretical foundations used in consumer behavior in the form of decision making.

*Decision-making*

In the decision making process, as in Figure 1 below. In the early stages of the decision-making process, consumers need to identify their needs, then consumers will look for alternative information of their choice and then evaluate which alternative is the best for these consumers.



Source: Schiffman & Kanuk, 2008

**Figure 1: Simple Model of Consumer Decision Making**

Based on the decision-making process model, at the alternative evaluation stage, consumers need a lot of information that can help them to make considerations in the process of evaluating their alternative choices. During the alternative evaluation process, consumers will face conditions of uncertainty and possible negative consequences that will be received after purchasing goods / services. When the risk perception is high, consumers will be motivated to avoid the use of goods / services or consumers will minimize the risk by finding as much information as possible and evaluating alternatives in the decision making process.

*Technology Acceptance Model (TAM)*

This Technology Acceptance Model (TAM) is the model that analyze the factors that can influence the acceptance of the use of other computer applications or technologies. This theory was introduced by Davis in 1986 as a development of Theory of Reasoned Action (TRA) which is then devoted to modeling how user acceptance of technology or information systems. This model aims to explain in general, a decisive factor of the reception of information-based technologies and behavior of end users.

### *Perceived Risk to Trust*

Consumers' perception of the uncertainty and negative consequences that will be received for goods / services purchased is called Perceived Risk (Oglethorpe & Monroe, 1994). On the purchase of products with a high risk, then consumers will increasingly motivated to seek more information (Assael, 1998) . According to Assael (1998: 270), the level of risk perception becomes higher when;

- 1) There is little information available on the product
- 2) Products are new products
- 3) Product technology is more complex
- 4) Consumer confidence to evaluate the product brand is low
- 5) Prices of products t Heigh
- 6) Consumers consider the product important

The higher the consumer's risk perception, the higher the consumer's involvement in purchasing (Engel, et.al. 1995 ). In addition, according to research results from (Nguyen & Huynh, 2018), it is known that the smaller the risk perceived by consumers, the greater one's confidence in using electronic payments. So, in this study it is known that risk perception has a significant relationship with trust.

#### *Proposition:*

*The lower the risk felt by consumers, the higher the level of consumer trust in using e-Wallet*

### *Trust in the Decision of Use*

Lack of consumer trust in mobile payment applications from non-bank organizations has led to the failure of digital payment applications (Ding & Hampe, 2003). According to (Lee & Song, 2013), indicators for measuring consumer trust are reliability, integrity and generosity, while according to (Shamdasani & Balakrishnan, 2000) indicators of trust are integrity, reliability, personal contact . According to (Mukherjee & Nath, 2003), trust can be measured through;

- 1) Technology Orientation
- 2) Reputation
- 3) Perceived Risk

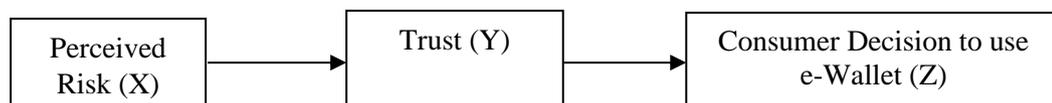
The results of the study state that there is a significant relationship between trust and intention to shop online or electronic commerce (Choon Ling, Bin Daud, Hoi Piew, Keoy, & Hassan, 2011) ; (Kim, Ferrin, & Rao, 2008). Trust is an important element in the acceptance of payment technology, research (Priyono, 2017) states that trust has an influence on the use of electronic wallets. In the Technology Acceptance Model (TAM), intention to use is a behavioral trend that will shape consumer decisions to use the technology.

#### *Proposition:*

*The higher the level of consumer trust, the more confident consumers will use e-Wallet.*

### *Research Framework*

Based on the background and relevant previous research, the following research framework can be described:



**Figure 2: Research Framework**

The hypotheses made in this study include :

H1 : Perceived risk (X) has a significant effect on consumer trust (Y)

H2 : Trust (Y) has significant effect on Consumer Decision (Z) to use e-wallet



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## 3. RESEARCH METHODOLOGY

This research uses primary data by distributing questionnaires to the 100 users of e-wallet nonbank application such as GoPay, OVO and Dana in Palembang with non-probability sampling technique. Instrument measured by giving a scale level using a numerical scale containing numbers 1 to 5 where each pole has a consistent positive and negative pole. The object of this research is the e-wallet application non-bank in Indonesia. The scope of the study covered only a matter of trust, perceived risk and the decisions of consumers using the application e-wallet non-bank.

Operational definition of variables could be found in Table 2:

**Table 2 . Operational Definition of Variables**

Variable	Description	Code	Indicator	Reference
<i>Perceived Risk (X)</i>	The level of consumer confidence about the potential negativity is uncertain from using e-wallets	X <sub>1.1</sub>	Privacy	(Kim, Ferrin, & Rao, 2008) ; (Lee & Song, 2013)
		X <sub>1.2</sub>	Social	
		X <sub>1.3</sub>	Performance	
		X <sub>1.4</sub>	Financial	
<i>Trust (Y)</i>	The level of trust of e-wallet users when the e-wallet provider is trusted to have reliability and integrity	Y <sub>1</sub>	Capability / reliability	(Morgan & Hunt, 1994); (Lee & Song, 2013)
		Y <sub>2</sub>	Integrity	
		Y <sub>3</sub>	Generosity	
The decision to use a non-bank e-wallet (Z)	Decisions on using e-wallets from non-banks go through stages up to consumer reactions after consumption	Z <sub>1</sub>	Problem introduction	(Schiffman & Kanuk, 2008 )
		Z <sub>2</sub>	Information search	
		Z <sub>3</sub>	Alternative evaluation	
		Z <sub>4</sub>	Using e-wallet applications	
		Z <sub>5</sub>	Post use	

### *Analysis Technique*

An analytical technique in this research is using path analysis. Path analysis is an extension of multiple linear regression that allows analysis on more complex models. This technique is used to prove the relationship between variables in the study. In this study there is one independent variable is the perceived risk, 1 variable between trust and one dependent variable is the consumer's decision to use e-wallet nonbank. Research with intervening variable can be measured by using path analysis.

## 4. RESULTS AND DISCUSSIONS

### *Result*

#### *Respondent Profile*

**Table 3. Profile of Respondents**

Variable	Category	Frequency	%
<i>Gender</i>	Male	22	22 %
	Women	78	78 %
	<b>Total</b>	<b>100</b>	<b>100%</b>
<i>Age</i>	15-24 years	51	51%
	25-34 years	23	23%
	35-49 years	20	20%
	50-64 years	6	6%
	<b>Total</b>	<b>100</b>	<b>100%</b>



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<i>Occupation</i>	Student	40	40 %
	Civil Servants / BUMD	34	34 %
	Employee of Private Company	15	15 %
	Professional / Entrepreneur	4	4 %
	Housewife	6	6 %
	Lecturer	1	1 %
	<b>Total</b>	<b>100</b>	<b>100%</b>
<i>E-Wallets most often used</i>	OVO	46	46%
	Gopay	39	39%
	Shopee Pay	7	7%
	Dana	5	5%
	i-Saku	2	2%
	Linkaja	1	1%
	<b>Total</b>	<b>100</b>	<b>100%</b>
<i>Reason of choosing e-wallet More than cash</i>	It is more practical because it immediately deducts the balance	21	21%
	Has large amount of deposits	1	1%
	Get certain privileges / conveniences (for example, special lanes without queuing)	9	9%
	Feel safe and more comfortable	9	9%
	There are cash back promos, discounts etc.	46	46%
	It has become a habit / life style	1	1%
	Looks modern and up to date	4	4%
	Don't hold any cash	8	8%
<b>Total</b>	<b>100</b>	<b>100%</b>	
<i>Total Top Up / Month</i>	< Rp. 100,000	27	27%
	Rp. 100,000 - 500,000	60	60%
	Rp. 500,001 - 1,000,000	7	7%
	Rp. 1,000,001 - 1,500,000	1	1%
	Rp. 1,500,000 - 2,000,000	4	4%
	> Rp. 2,000,000	1	1%
<b>Total</b>	<b>100</b>	<b>100%</b>	

Source: Output Data, SPSS 22, 2020

Based on the data of respondents who filled out the questionnaire 78% were women and 22% were men. Most respondents are students (40%) with the maximum age range between 15-24 years (51%). Most respondents use OVO (46%), then the second is Gopay (39%), the third is Shopee Pay (7%), Dana (5%), i-Saku (2%) and the last is Link Aja (1%). Respondents prefer to use e-wallet applications instead of paying cash because there is currently cash back promo or discount (46%), the second is more practical because it immediately cuts the deposit's balance (21%), gets *privacy* and convenience (9%), it is also because they do not hold any cash (8%), look modern and updated (4%), have become a lifestyle (1%) and finally because their deposit has a large enough balance (1%). Based on survey data, the total top up of respondents each month is around Rp. 100,000-500,000 (60%) and under Rp. 100,000 (27%), the remaining 13% is above Rp. 500,000.

### *Distribution of Frequency*

From the results of the questionnaire answers using a numeric scale containing numbers 1 to 5 where each pole has a consistent positive and negative pole, the distribution of the respondents' answers is obtained in the following table.

**Table 4. Distribution of Frequency**

No.	Item	(1)	(2)	(3)	(4)	(5)
X <sub>1</sub>	The e-wallet that is used has and protects a privacy policy	0	3	13	47	37
		0%	3%	13%	47%	37%



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X <sub>2</sub>	Using an e-wallet app makes me look modern and up to date	2	4	24	40	30
		2%	4%	24%	40%	30%
X <sub>3</sub>	The performance of the e-wallet application used is as expected (smooth payment process, not pending, etc.)	0	0	16	43	41
		0%	0%	16%	43%	41%
X <sub>4</sub>	The e-wallet used has a security system such as OTP (One-Time Password) or a security code	0	1	5	32	62
		0%	1%	5%	32%	62%
Y <sub>1</sub>	The e-wallet application used is reliable for payment problems	0	0	9	43	48
		0%	0%	9%	43%	48%
Y <sub>2</sub>	The e-Wallet used has integrity and is committed to digital payments	0	0	12	52	36
		0%	0%	12%	52%	36%
Y <sub>3</sub>	By using an E-wallet, I don't have to bother transferring or storing cash.	0	1	14	32	53
		0%	1%	14%	32%	53%
Z <sub>1</sub>	I looked for as much information as possible about existing e-wallet products before deciding to choose the e-wallet application	0	4	28	33	35
		0%	4%	28%	33%	35%
Z <sub>2</sub>	I feel the need to download the e-wallet application because I need the application	0	3	12	33	52
		0%	3%	12%	33%	52%
Z <sub>3</sub>	I evaluated all available e-wallet options before choosing the e-wallet	0	7	25	39	29
		0%	7%	25%	39%	29%
Z <sub>4</sub>	I decided to use the e-wallet because it is the best choice of all the available e-wallet options	1	2	23	38	36
		1%	2%	23%	38%	36%
Z <sub>5</sub>	I am happy to use the e-wallet app and will continue to use it.	0	5	18	35	42
		0%	5%	18%	35%	42%

Source: Output Data, SPSS 22, 2020

### *Instrument test*

Before conducting the analysis, the overall quality of the respondents and the quality of the instruments used as well as the interactions between respondents and question items were calculated using the Rasch model. Based on the summary statistics, it is known that the value of Cronchbach's Alpha is 0.91, which means that the interaction between the respondent and the questions has a very good value because the value of Cronchbach's Alpha is > 0.8. Value Person Reliability worth 0.83 and Item Reliability 0.91 shows that the consistency of responsibility early on good responder for n use values Person Reliability is between 0.81-0.90 and the quality of the grains have a question in a nice instrument for value Item Reliability is between 0.91-0.94. The summary statistics can be seen in the following table:



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**Table 5: Summary Statistic Rasch Model**

	Value
Cronbach Alpha (KR-20) Person Raw Score "TEST" Reliability	0.83
Person Reliability	0.83
Item Reliability	0.91

Source: Output Data, Winstep, 2020

## Path Analysis

Regression Analysis I :

Variable Perceived Risk to Trust

Based on the results of linear regression, it is known that the  $R^2$  value is as follows

**Table 6: Value of R and R Square**

Model	R	R Square
1	0,934	0,872

Source: Output Model Summary, SPSS 22, 2020

Coefficient value

**Table 7: Coefficient Value**

Model	Standardized Coefficients	Sig.
	B	
Constant		
X <sub>1</sub>	0.934	0.000

Source: Output Data , SPSS 22 , 2020

Regression Analysis II:

Variable Trust (Trust) on the decision to use e-wallets

**Table 8. R and R Square values**

Model	R	R Square
1	0,984	0,969

Source: Output Model Summary, SPSS 22, 2020

Coefficient value

**Table 9: Coefficient Value**

Model	Standardized Coefficients	Sig.
	B	
Constant		
X	0.588	0.000
Y	0.413	0.000

Source: Output Model Summary, SPSS 22, 2020

Path Coefficient - Model 1

The next step is to calculate the path coefficient for model I and model II. From the coefficient value, it is known that the significance value of the risk perception (X) is 0.000 where the value is less than

0.05, this proves that X has a significant effect on Y. The R Square value is 0.872, this shows that the variable X can explain the Y variable by 87.2 %.

The e1 value of this path is  $e1 = \sqrt{1-0.872} = 0.358$

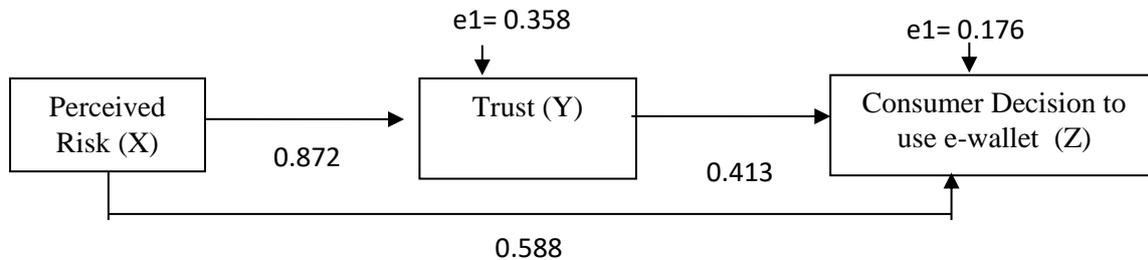


**Figure 3: Path Coefficient I**

**Path Coefficient – Model II**

Based on the coefficient value of model II, it is known that the significance value of Trust (Y) is 0.000 where the value is less than 0.05, this proves that Y has a significant effect on Z. The value of R Square is 0.969, this shows that the variable Y can explain the variable Z by 96.9%.

The e2 value of this path is  $e2 = \sqrt{1-0.969} = 0.176$



**Figure 5: Path Coefficient II**

**Hypothesis 1 :**

$H_1 =$  Perceived Risk (X) has a significant effect on Trust (Y)

From the output, it is known that the significance value of the variable (X) is 0.000 < 0.05. This means that the hypothesis  $H_1$  is accepted, which states that risk perception has a significant positive effect on consumer trust (Y).

**Hypothesis 2 :**

$H_2 =$  Trust (Y) has a significant effect on the decision to use e-wallets (Z)

In variable (Y), the significance value is 0,000 < of 0.05. This means that the hypothesis  $H_2$  is accepted. In this study it is stated that Trust (Y) has a significant effect on the decision to use e-Wallet (Z).

**Analysis of the Effect of Perceptions of Risk on Consumer Decisions through Trust**

Based on the results of the path coefficient calculation, it is known that the direct effect of Perceived Risk (X) on Consumer Decisions to use e-Wallet is 0.588. Meanwhile, the indirect effect of Perceived Risk (X) through Consumer Trust (Y) on Consumer Decisions to use e-wallets (Z) is equal to

The beta value  $X \rightarrow Y$  multiplied by the beta value  $Y \rightarrow Z = 0.872 \times 0.413 = 0.36$

Based on these calculations, it can be seen that the direct effect of Perceived Risk on consumer decisions to use e-Wallet (0.588) is greater than the indirect effect (0.36).

**Discussion**



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Based on the results of data analysis, it is known that perceived risk can influence consumer decisions through trust, but this relationship is not too strong compared to the direct relationship. This means that consumers' risk perceptions on non-bank e-wallets can directly influence their decision to use e-wallets. The results of this study support the results of research from (Priyono, 2017), where consumers can immediately decide not to use the non-bank e-wallet when they feel that this e-wallet has the high risk. Consumer behavior in Asian countries such as Indonesia tends to avoid risk or risk averse (Priyono, 2017). The results showed that respondents believed that there was a low risk of using non-bank e-wallets. This is indicated by a high percentage level (94%), where respondents agree and even strongly agree that the non-bank e-wallet used is safe because it has a security system such as OTP (One Time Password) or a security code. A good security system will reduce the user's risk financially, where consumers will feel their money is safe and the risk of losing money is low. There is also a positive trend (84%), where respondents stated that the non-bank e-wallets they use have policies and protect their privacy so that the risk of privacy tends to be low. The application performance was stated by respondents that they agreed and strongly agreed, the non-bank e-wallet application they used was met with their expectations where the payment process was smooth, not pending (84%). This shows that the perception of performance risk on non-bank e-wallets is quite low. Beside financial, performance and privacy risks, the use of e-wallet applications also has social risks, where respondents agree and strongly agree that they look modern and updated by using the application (70%). This means that the social risk perception in using non-bank e-wallet applications is low.

Based on research, it is known that user trust can influence the decision to use an e-wallet. The results of this study is supported by the research from (Lee & Song, 2013). Based on the research results, it is also known that trust can mediate the relationship between perceived risk and the decision to use the application, but it is not too strong as the direct relationship between perceived risk and the decision to use an e-wallet. The results of this study is supported by the research from (Nguyen & Huynh, 2018).

### 5. CONCLUSION

From this research, it can be concluded that the decision of non-bank e-wallet users is influenced by consumer trust in the e-wallet. In addition, consumers' risk perceptions of e-wallets can also directly influence consumer decisions to use non-bank e-wallets. The factor that most influences consumers' decisions to use non-bank e-wallets is how consumers perceive the risks that may be borne by using these non-bank e-wallets. The smaller the risk that can occur due to using e-wallets will strengthen the consumer's decision to use the e-wallet. E-wallet industry could consider to improve their application system to build the consumer's trust and design their application in order to reduce the risk that might arise from the using of their application. These improvements could make the company survive in this industry moreover Indonesia is currently facing the unstable economic condition due to the pandemic of Covid-19.

### LIMITATION AND STUDY FORWARD

This research only covers the e-wallet application from non-banking industry. Future study could research more about the e-wallet application from both banking and non-banking industry. In another opportunity, other researcher could compare e-wallet application from both of the industry banking and non-banking and they also could use perceived risk as the factor that directly influence consumer decision to use application.

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## THE ROLE OF FINTECH IN INCREASING INCLUSION FINANCIAL IN UMKM IN SOUTH SUMATERA

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### Abstract

The number of UMKM during the last two years from 2017-2018 has increased by 830 units. The growth of UMKM has experienced a growth that is not too fast when compared to the number of workers absorbed which can be said that the increase over the last two years is quite large, namely 2,722 people. With the growth of UMKM, the presence of the digital era is urgently needed to support inclusive financial growth in UMKM that is even better for the next year. fintech (financial technology) or financial technology is the use of technology in the financial system that results in new products, services, technology or business models and can have an impact on monetary stability, financial system stability, or the efficiency, smoothness, security and reliability of the payment system. The population in this study were UMKM using fintech services in South Sumatra and using a sample in Palembang City with 30 respondents. This research method uses interview method guided by a questionnaire. With this research, we can find out how the response and knowledge of UMKM actors with the existence of fintech and financial inclusion that are used in UMKM businesses.

**Keywords:** *Fintech, Inclusive Finance, UMKM*

### 1. INTRODUCTION

The development of technology in the digital era, as it is now, has also triggered the development of Financial Technology (Fintech). According to Bank Indonesia, financial technology or financial technology is the use of technology in the financial system that results in new products, services, technology or business models and can have an impact on monetary stability, financial system stability, or the efficiency, smoothness, security and reliability of the payment system.

The development of financial technology has a significant impact on the lives of UMKM actors and society in general. Information technology in the financial sector is used to assist the public in accessing existing financial products and services, so that it can provide opportunities for anyone to carry out financial activities anywhere, anytime, easily and safely. Information technology innovation in the field of financial services is Fintech, namely Financial Technology which means innovation in providing financial services (Wiyono and Kirana, 2020).

The financial sector is currently one of the sectors that has an impact on technological developments that have entered the financial sector, so that its development is slow and can change the financial industry to the digital era. With the existence of fintech, it is hoped that it can improve the welfare of both UMKM and the general public (Winarto, 2020)

The presence of Fintech has a role in efforts to increase financial inclusion, where fintech can help the community, especially in the UMKM sector, to obtain alternatives and access to financial services to make it easier.

In OJK regulations, financial inclusion is defined as the availability of access to various financial institutions, products and services in accordance with the needs and abilities of the community in order to improve the welfare of society. There are components in order to improve financial inclusion, namely, access, availability, use and quality (POJK, 2016)

The UMKM sector is the business unit that grows the most and absorbs labor, so the UMKM sector plays a very important role in economic growth. The implementation of fintech to increase financial inclusion is expected to be able to support growth in the UMKM sector in South Sumatra.



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**Table 1: Development of UMKM in South Sumatra**

Indicator	2017	2018
Number of MSMEs (units)	12,000	12,830
Number of MSME Workforce (people)	62,725	65,447

Source: South Sumatra Province Industry Service, 2017 - 2018

The number of UMKM in South Sumatra Province during the last two years has experienced growth, although the growth in the number of UMKM is not too fast, the number of workers absorbed can be said to be quite large. The increasing number of UMKM, the role of fintech in the digital era as it is today is very much needed to increase financial inclusion.

## Formulation of the problem

1. What is the role of fintech in increasing financial inclusion in UMKM in South Sumatra?
2. What are the obstacles to implementing fintech in increasing financial inclusion in UMKM in South Sumatra?

## Objectives and benefits

1. To find out the role of fintech in improving financial inclusion in UMKM in South Sumatra.
2. This is to find out the obstacles in implementing fintech in increasing financial inclusion in UMKM in South Sumatra.

## 2. LITERATURE REVIEW

### Financial Technology (Fintech)

According to Bank Indonesia financial technology or financial technology is the use of technology in the financial system that results in new products, services, technology and / or business models and can have an impact on monetary stability, financial system stability, and / or efficiency, smoothness, security and reliability of the payment system. Fintech also has an important role in changing consumer behavior and expectations (Muzdalifa, Rahma, and Novalia; 2018):

- A. Can access data and information anytime and anywhere.
- B. Generalizing large and small businesses so they tend to have high expectations even for small, newly built businesses.

Financial technology is measured using several indicators, namely (Bank Indonesia, 2016):

1. Crowdfunding and Peer to Peer (P2P) Lending, this classification is based on the function of the platform, namely as a meeting place for capital seekers and investors in the loan sector. This platform uses information technology, especially the internet, to provide easy money lending and borrowing services.
2. Market aggregator, this category is a medium that collects and collects financial data from various data providers to be presented to users. This financial data can then be used to make it easier for users to compare and choose the best financial products.
3. Risk and investment management, the following categories are classifications for services to users in order to plan and know their financial condition at any time and in all circumstances.
4. Payment, settlement, and clearing, financial technology services in this category function to make it easier for users to make payments online and can be done quickly.

### Financial Inclusion

The term financial inclusion or financial inclusion has become a trend after the 2008 crisis, mainly based on the impact of the crisis on groups in the bottom of the pyramid (low and irregular incomes, living in remote areas, people with disabilities, workers who do not have legal identity documents, and marginalized communities) which are generally unbanked, which is noted to be very high outside the developed world.

Various reasons have caused the intended community to become unbanked, both from the supply (service provider) and demand (community) side, namely due to price barriers (expensive), information



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barrier (not knowing), product design barrier (suitable product) and channel barrier (means appropriate). Inclusive finance is able to answer this reason by providing many benefits that can be enjoyed by the community, regulators, government and the private sector, including the following:

1. Increase economic efficiency.
2. Supporting financial system stability.
3. Reducing shadow banking or irresponsible finance.
4. Support financial market deepening.
5. Providing new market potential for banks.
6. Supporting the improvement of Indonesia's Human Development Index (HDI).
7. Contribute positively to local and national economic growth that is sustainable and sustainable.
8. Reducing inequality and low income trap rigidity, so as to improve the welfare of the community which ultimately leads to a reduction in the level of poverty.

Financial inclusion is measured using several indicators, namely (OECD INFE, 2018):

1. Payment Products, identify payment products used such as prepaid cards, current accounts, and others.
2. Savings and Investments, identifies savings and investment products across country level data, investment accounts, savings accounts, savings clubs, bonds, crypto assets and more.
3. Insurance, identifying the use of insurance in the business of business actors at MSMEs.
4. Credit, identifying credit products such as credit cards, credit loans, and others
5. Understanding of bank credit, seeing and identifying all positive assumptions about bank credit.
6. The choice of banking financial products to be owned or used identifies individuals who have made at least one product choice
7. Rely on family and friends, identify people who turn to family or friends to save money for them, or to help them make ends meet.

### UMKM

The Central Statistics Agency (BPS) provides a definition of UMKM based on the use of the number of workers in each business unit, namely:

1. A small business is a business unit that has a workforce of five to 19 people.
2. Medium enterprises are business units that have a workforce of 20 to 99 people.

Meanwhile, the definition of UMKM according to Law 20/2008 on Micro, Small and Medium Enterprises sets limits on the criteria for UMKM as follows:

1. Micro Business Criteria are as follows:
  - a. Have a net assets of not more than Rp.50,000,000.00 (fifty million rupiah) excluding land and buildings for business premises; or
  - b. Have an annual sales result of not more than IDR 300,000,000.00 (three hundred million rupiah).
2. Small Business Criteria are as follows:
  - a. Have a net asset of more than Rp.50,000,000.00 (fifty million rupiah) up to a maximum of Rp. 500,000,000.00 (five hundred million rupiah) excluding land and buildings for business premises; or
  - b. Have annual sales revenue of more than Rp. 300,000,000.00 (three hundred million rupiah) up to a maximum of Rp. 2,500,000,000.00 (two billion and five hundred million rupiah).
3. Medium Business Criteria are as follows:
  - a. Have a net worth of more than Rp. 500,000,000.00 (five hundred million rupiah) up to a maximum of Rp. 10,000,000,000.00 (ten billion rupiah) excluding land and buildings for business premises; or
  - b. Have annual sales proceeds of more than IDR 2,500,000,000.00 (two billion five hundred million rupiah) up to a maximum of IDR 50,000,000,000.00 (fifty billion rupiah).



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## 3. METHOD OF IMPLEMENTATION

### The scope of research

This study aims to analyze the role of fintech in increasing financial inclusion in UMKM in South Sumatra.

### Data source

Data is a collection of information obtained from the results of research or statistical surveys (Nadeak et al, 2016). Collecting data in scientific research is intended for material or data that is relevant, accurate, and reliable that we want to examine. Therefore it is necessary to use good and suitable data collection methods. The data used in this study are primary data which is a source of research data obtained directly from the original source. Primary data can be obtained by conducting direct interviews and giving questionnaires to informants. Interviews were conducted based on a list of questions that had been prepared beforehand so that they were in accordance with the final objectives of the research to be carried out. In conducting the interview, it is necessary to prepare questions as a guide but it is possible to have variations in other questions for each source.

### Population and Research Sample

#### Population

Population is a collection of elements that show certain characteristics that can be used to make conclusions (Sanusi, 2011). The population in this study were UMKM using fintech services in South Sumatra.

#### Samples

The sample is a part of a particular population of concern. Samples taken from the population must be representative. In this study, the sample data were 30 respondents from UMKM who used fintech services in Palembang City.

### Method of collecting data

Collecting data in a scientific research is intended for material or data that is relevant, accurate, and realistic to be studied. The data collection method in this study is the interview method guided by a questionnaire. The interview is a data collection technique that uses oral questions to the research subject (Sanusi, 2014). Interviews are conducted by asking questions that have been carefully compiled beforehand. In this case, to make it easier for respondents to answer questions, researchers use simple sentences and make a list of questions as a guide in conducting interviews. This is done so that researchers can dig up as much and deep information as possible about the field phenomenon being studied.

### Method of Analysis

The method of analysis used in this research is descriptive method, namely describing a problem and analyzing data and matters related to the numbers or calculation formulas used to analyze the problem being researched means seeing how the proportion of the value of the use of UMKM actors on fintech services and financial inclusion.

## 4. RESULTS OF ACTIVITIES AND DISCUSSION

### Survey to Site Location

The implementation of the service conducted a survey to the location where the activity was carried out by meeting UMKM respondents who used fintech and financial inclusion services and were in Palembang City. The survey was conducted by dividing the area into two parts:

**Table 2: Research Areas and Areas**

No.	Territory	Area
1	Ulu	Kertapati Opi Jakabaring Plaju
2	Iilir	Demang Leaf Width 26 ilir and 19 ilir



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Big Hill and Little Hill  
Force 45  
Lemabang  
Km  
Reja Pipe  
Sudirman

## 2. Schedule and Area of Research Activities

**Table 3: Schedule of Activities**

No.	Date and time	Time	Name	Information
1	Friday, 30 October 2020	09.00- finished	Dhea Tri Meilan	Region: Kertapati and Plaju
			Rizqi Maulidina Safitri	Region: 26 ilir and 19 ilir
			Astria Septiana	Area: Km and Force 45
2	Saturday, 31 October 2020	09.00-done	Dhea Tri Meilan	Region: Opi Jakabaring and Google Form
			Rizqi Maulidina Safitri	Region: Hills and Google Form
			Astria Septiana	Region: Demang, Force 66 and Google Form
3	Sunday, November 1, 2020	09.00-done	Dhea Tri Meilan	Google Form (Online)
			Rizqi Maulidina Safitri	Google Form (Online)
			Astria Septiana	Google Form (Online)

### Results of the Discussion

The results of the activity in the field resulted in 30 respondents who were obtained in two parts of the Palembang region, namely Ulu and Ilir. Some of the respondents obtained were from the UMKM group engaged in the culinary business, but some were engaged in other fields. There were 8 UMKM respondents with male gender and 22 female respondents with the education of UMKM actors, namely SMA, Diploma-3, and Strata-1.

**Table 4: Questionnaire Results for Participants Responses to Fintech**

#### A. FINTECH

No.	Statement	Alternative Answers				
		STS	TS	KS	S	SS
Crowdfunding and Peer to Peer Landing indicators						
1.	UMKM are aware of several facilities for loan funds provided to UMKM through fintech	0	4	6	19	1
2.	UMKM know the transparency of agreements between UMKM and lenders through fintech	1	2	7	18	2
3.	UMKM are interested in online loan funds through fintech	2	3	4	17	4
Market Aggregator Indicator						



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1. UMKM understand the many virtual services contained in fintech services	2	3	4	18	3
2. UMKM know the advantages offered by fintech products	1	2	3	18	8
Payment Indicators					
1. UMKM understand online transaction services	1	0	1	22	6
2. UMKM find it easy to transact online	1	2	1	19	9
Risk Indicator					
1. UMKM understand the risks involved in using fintech	1	4	3	17	5
2. UMKM know the risk of errors when transacting online which can be detrimental	2	4	6	16	2

Table 4 describes the results of the responses of UMKM respondents to fintech. The crowdfunding and Peer to Peer Lending indicators are used to make various statements regarding the ease, transparency, and interest in lending to fintechs. UMKM assessed that respondents knowledge of the existence of several facilities for loan funds provided to UMKM through fintech was good enough. It can be seen that UMKM agree as many as 19 people and very seventy as many as 1 person. For the assessment of disagreeing, getting a score of 4 people and disagreeing with 6 people. In this indicator, none of the UMKM strongly disagree.

UMKM respondents assessed that 18 people agreed and 2 people strongly agreed for the indicator that fintech services can make UMKM know the transparency of agreements between UMKM and lenders. UMKM considered that as many as 1 person disagreed, 7 disagreed, and 7 people disagreed.

UMKM respondents have an interest in online loan funds through fintech, seen in UMKM assessing 17 people and strongly agreeing with 4 people. UMKM assessed that 2 people disagreed, 3 people disagreed, and 4 people disagreed.

The market aggregator indicator explains how to understand the virtual services obtained by UMKM and the benefits that fintech offers to UMKM. The variety of virtual services contained in fintech services allows UMKM to choose the services needed by their businesses. UMKM respondents rated 18 people agree and strongly agree as many as 3 people. However, some UMKM respondents considered that 2 people disagreed, 3 people disagreed, and 4 people disagreed.

The variety of fintech services makes fintech products offer many benefits to MSME. It can be seen that UMKM agree as many as 18 people and 8 people strongly agree. However, some respondents considered that 1 person strongly disagreed, 2 people disagreed, and 3 people disagreed.

Payment indicators are made to explain how the understanding of services and the ease of online transactions carried out by UMKM players. For understanding online transaction services, many UMKM already understand because seen from the assessment of UMKM respondents, 22 people agree and strongly agree as many as 6 people. UMKM respondents who strongly disagreed were 1 and disagreed 1. For this indicator, none of the UMKM respondents chose the assessment of disagree.

The existence of fintech makes UMKM feel the ease of transacting online. The UMKM assessed that 19 people agreed and 9 people strongly agreed. However, there are UMKM respondents who strongly disagree as many as 1 person, disagree with 2 people, and disagree as many as 1 person.



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Risk indicators are made to explain UMKM statements about the risks that will be faced by UMKM in using fintech services. UMKM respondents who understand the risks in the use of fintech on the variable strongly disagree, namely 1 person. This indicates that most UMKM respondents already understand and use Fintech. In the disagree variable, it was obtained 4, which indicated that some UMKM respondents did not understand fintech and only 3 people did not agree with the variable. However, most respondents agree and understand fintech through the agreeing variable, this is shown by obtaining 17 people on the agreeing variable and on the strongly agreeing variable, 5 people are obtained.

The UMKM variable in knowing the risk of errors when transacting online which can be detrimental is to strongly disagree, namely 2 people. In the variable disagree, respondents only get 4 people. This shows that some respondents still do not know the risk of errors in online transactions which can be detrimental. This is also shown in the disagree variable of 6 people. In understanding the risk, most respondents really understand the risks that can be detrimental to online transactions because the number of respondents chose to agree, namely 16 people and strongly agree to get 2 people.

With the Crowdfunding and peer to Peer Landing indicators, market aggregator indicators, payment indicators, and risk indicators, this study made 9 statements that were answered by 30 UMKM respondents who used fintech services in Palembang City.

**Table 5: Questionnaire Results of Participants Responses to Financial Inclusion**

### B. FINANCIAL INCLUSION

No.	Statement	Alternative Answers				
		STS	TS	KS	S	SS
Payment Indicators						
1.	UMKM understands the ease of making transactions through banking transactions	1	2	6	17	4
2.	Your UMKM has processed buying and selling transactions using banking services	1	5	3	14	7
Saving and Investment Indicators						
1.	Your UMKM already have a bank account	0	0	6	12	12
2.	Your UMKM has savings in the bank	1	2	3	22	2
3.	You have understood the risks of investment services through banking services	2	5	6	15	2
Insurance Indicators						
1.	The business you have is insured	10	16	4	0	0
2.	You understand the importance of business insurance	1	12	4	10	3
Credit Indicators						
1.	Your business has a loan at the bank	7	8	6	9	0
Indicators of Understanding of Banking Products						
1.	You understand 5 (five) banking products, namely savings, current accounts, time deposits,	4	5	8	12	1



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credit, and other services

### Indicators of Banking Financial Products Owned / Used

1. You have used / owned banking financial services for at least one product in the last 2 (two) years	1	4	9	13	3
<b>Loan Indicators to Family or Friends</b>					
1. You prefer to make loans to your family	3	3	6	11	7
2. You prefer to make loans to friends	6	6	7	10	1

Table 5 explains the results of the questionnaire responses from participants to financial inclusion. In explaining financial inclusion, researchers use several indicators. Payment indicators explain how UMKM understand the ease and process of transactions in running their business with the presence of banking services. Most of the UMKM respondents understand how to transact through banking transactions. This is indicated by the high number of respondents who agree and strongly agree, namely 17 and 4 people. However, there are also respondents who do not understand, but it can be said that there are still a few respondents who show the acquisition of three variables, namely strongly disagree with 1 person, disagree with 2 people and disagree with 6 people.

UMKM that have carried out the process of buying and selling transactions in using banking services obtained most of the 30 people who have used, as shown by the agree and strongly agree variables, namely 14 and 7 people. While for the variable strongly disagree, it is obtained 1 person, 5 people disagree and disagree with 3 people. This shows that many have used banking services rather than those who have not.

For saving and investment indicators, it is used to see whether UMKM have accounts, savings funds in banks, as well as understanding the risk of investing in UMKM in banks. In the study of UMKM that already have bank accounts, it shows that almost all respondents have through the results of the variables agree and strongly agree, namely 12 people and 12 people. Meanwhile, those who chose to disagree were only 6 people and there was no value acquisition on the variable disagree and strongly disagree.

Most UMKM in Palembang already have savings in banks. This is supported by the acquisition of the results of the variable agree and strongly agree, namely as many as 22 and 2 people, but the variables strongly disagree, agree and disagree having a total of 6 people vote so it is clear that almost all UMKM already have funds in their respective banks. each in order to save the profit from the results of their respective UMKM.

Understanding of the risk of investment services through banking services is understood. This is indicated by the variable selection of respondents who choose 17 agree and strongly agree with 2 people. Meanwhile the variable strongly disagrees with 2 people, 5 people disagree and disagrees with 6 people who choose, so this does not make understanding of the risk of investment services through banking services not understood so other efforts are needed to encourage understanding of this service in the future so it can be better.

On the Insurance Indicator with a statement to find out about the existence of insurance used by UMKM and to understand the understanding of the importance of insurance to the businesses of UMKM players. It seems that the insured UMKM are still lacking and there are only a few UMKM players whose businesses are insured, namely as many as 10 people, less as many as 16 business actors and quite less



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as many as 4 business actors out of 30 respondents who still do not have business insurance.

The understanding of business insurance is still very less attractive to UMKM actors in the table above, it is stated by the data that the understanding of the importance of business insurance is 12 UMKM players who really do not understand the importance of business insurance. But it does not rule out that there are also quite a number of UMKM actors who understand the importance of business insurance as many as 10 UMKM players. Indicators of financial inclusion on credit with business variables that have loans at banks, many business actors have borrowed capital on credit at a bank that they trust from 30 respondents who have capital loan funds are 9 UMKM actors. 7 of them have never borrowed capital at a bank for business. An understanding of banking products such as savings, current accounts, deposits, 5 of them do not understand, and 4 do not understand at all about banking products.

Indicators of understanding of banking products explain how UMKM understand existing banking products. Banking financial products used by UMKM that have used financial services in banking have been good or there have been quite a number of UMKM players who have used banking product services, during the last 2 years, namely 13 UMKM players. 9 UMKM are still lacking in using financial services in banking, 4 of which have not used them and 1 is an UMKM actor who has never used financial services from banks. Indicators of variable loans to family and friends, in the variable of family loans in running their UMKM businesses, many prefer loans to families, namely 11 people and those who greatly affect borrowing funds from families are 7 out of 30 UMKM players. Not borrowing funds at all from the family of 3 UMKM actors. Then loans to friends do not rule out the possibility of many borrowings from friends as well as often as many as 11 UMKM actors. Do not borrow at all from friends as many as 6 people and less than 7 people.

### 5. CONCLUSIONS AND SUGGESTIONS

In this study, it is known that all UMKM respondents know about it Fintech services and financial inclusion can be seen how the answers of respondents in filling out the questionnaire questions, so this means that the existence of fintech services and financial inclusion can help UMKM in developing their businesses. With the existence of various kinds of fintech information media and financial inclusion obtained by UMKM players, it is obtained from social media and friends.

This research is very useful for UMKM actors in an effort to find out how the response and knowledge of UMKM actors with the existence of fintech and banking services used in the UMKM business. With the presence of these services, it is necessary to conduct more socialization regarding the use of fintech and banking services to increase the positive impact and reduce any negative impacts that will occur, this is not only done to UMKM players but for the wider community so that knowledge and understanding of the existence of fintech services and banking can help individuals and businesses that are being run by someone.

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### ATTACHMENT

1

1	Business Name	:	byLan.id_
2	Type of business	:	Maknyus Jajanan
3	Business Address	:	15 Ulu, Jakabaring
4	Age of Business Owner	:	21 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	S1
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	500,000 / month
11	What fintech product service to use	:	Bank transfer
12	Where do you get fintech information from	:	Social media



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2

1	Business Name	:	Bekalbox.qiqil
2	Type of business	:	Home Food
3	Business Address	:	Jalan Raden Satar No. 824
4	Age of Business Owner	:	22 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	350,000 / month
11	What fintech product service to use	:	Bank transfer
12	Where do you get fintech information from	:	Internet

3

1	Business Name	:	Kripik Pisang Bik Loly
2	Type of business	:	Chips
3	Business Address	:	Jl Pangeran Ratu
4	Age of Business Owner	:	33 years
5	Business Age	:	5 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	700,000 / month
11	What fintech product service to use	:	Gopay and OVO
12	Where do you get fintech information from	:	On line

4

1	Business Name	:	Waroeng Rafif
2	Type of business	:	Retail / Minimarket
3	Business Address	:	Jalan HBR Motik No. 1006
4	Age of Business Owner	:	22 years
5	Business Age	:	3 months
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	30,000,000 / month
11	What fintech product service to use	:	QRIS Mandiri Syariah
12	Where do you get fintech information from	:	Friends and Social Media



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5

1	Business Name	:	Bakso Malang Angkringan Reza
2	Type of business	:	Food
3	Business Address	:	Jalan Pipa Reja, Next to Ilham Meatballs
4	Age of Business Owner	:	23 years
5	Business Age	:	2,5 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	S1
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	3,000,000 / month
11	What fintech product service to use	:	Gopay and OVO
12	Where do you get fintech information from	:	Internet

6

1	Business Name	:	Ayam Penyet Mika Afifah
2	Type of business	:	Culinary
3	Business Address	:	Jalan Panca Usaha 5, Kertapati
4	Age of Business Owner	:	29 years
5	Business Age	:	6 months
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	3,000,000 / month
11	What fintech product service to use	:	Gopay and OVO
12	Where do you get fintech information from	:	Gojek and Grab

7

1	Business Name	:	Ngunyah X Pempek Wak Ebok
2	Type of business	:	Food
3	Business Address	:	Sempayo Street No. 78, Ilir Barat 1
4	Age of Business Owner	:	23 years
5	Business Age	:	3 months
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,500,000 / month
11	What fintech product service to use	:	Gopay and QRIS BCA
12	Where do you get fintech information from	:	Friend



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8

1	Business Name	:	Snack_Albala
2	Type of business	:	Food
3	Business Address	:	Sukajadi Residence Complex
4	Age of Business Owner	:	22 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	S1
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	500,000 / month
11	What fintech product service to use	:	Transfer BNI and OVO
12	Where do you get fintech information from	:	Social media

9

1	Business Name	:	Pancake Danovan
2	Type of business	:	Culinary
3	Business Address	:	Jalan Bagelan RT 07 RW 06
4	Age of Business Owner	:	22 years
5	Business Age	:	2 years
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,000,000 / month
11	What fintech product service to use	:	Gopay
12	Where do you get fintech information from	:	Daily activities

10

1	Business Name	:	Bengbengflorist_
2	Type of business	:	Flannel Flower Craft
3	Business Address	:	Jalan Tanjung Api-Api KM 9,5
4	Age of Business Owner	:	21 years
5	Business Age	:	2 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,000,000 / month
11	What fintech product service to use	:	Mobile Payments / Online Banking
12	Where do you get fintech information from	:	Social media



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11

1	Business Name	:	Gacha
2	Type of business	:	Florist
3	Business Address	:	Pharmacy Manjur Sudirman
4	Age of Business Owner	:	30 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	S1
8	Number of Business Workers	:	3
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,500,000 - 2,000,000 / month
11	What fintech product service to use	:	GoPay and Transfer
12	Where do you get fintech information from	:	Social media

12

1	Business Name	:	Bu Sri Restaurant
2	Type of business	:	Food stalls
3	Business Address	:	Online Shop Based In Palembang
4	Age of Business Owner	:	24 years old
5	Business Age	:	1 year
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,000,000 / month
11	What fintech product service to use	:	Bank / Internet Transfer
12	Where do you get fintech information from	:	Social media

13

1	Business Name	:	Sangon Café
2	Type of business	:	Culinary Business
3	Business Address	:	Jl. Tribrata
4	Age of Business Owner	:	22 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	5
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	2,000,000 / month
11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	Internet



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14

1	Business Name	:	Sweetboobely
2	Type of business	:	Dessert
3	Business Address	:	Jl. Tribrata
4	Age of Business Owner	:	22 years
5	Business Age	:	2 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	Gopay and OVO
11	What fintech product service to use	:	500,000 / month
12	Where do you get fintech information from	:	Internet

15

1	Business Name	:	Bagovid
2	Type of business	:	Fried onions
3	Business Address	:	Jl. Parameswara
4	Age of Business Owner	:	22 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	500,000 / month
11	What fintech product service to use	:	Shopeepay and Dana
12	Where do you get fintech information from	:	Internet

16

1	Business Name	:	Bakso Sido Arum
2	Type of business	:	Culinary
3	Business Address	:	Jl. Simanjuntak
4	Age of Business Owner	:	40 years
5	Business Age	:	5 years
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	5
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	2,000,000 / month
11	What fintech product service to use	:	OVO and Gopay
12	Where do you get fintech information from	:	Internet



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17

1	Business Name	:	Pempek Ontet
2	Type of business	:	Food
3	Business Address	:	Jl. Balayuddha
4	Age of Business Owner	:	38 years old
5	Business Age	:	4 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,500,000 / month
11	What fintech product service to use	:	Gopay, OVO and Onlineshop
12	Where do you get fintech information from	:	Internet

18

1	Business Name	:	Waroeng Mie Aceh
2	Type of business	:	Food
3	Business Address	:	Jl. Jend. Sudirman
4	Age of Business Owner	:	49 years old
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	2,000,000 / month
11	What fintech product service to use	:	Fund
12	Where do you get fintech information from	:	Internet

19

1	Business Name	:	Etnic Coffee
2	Type of business	:	Culinary
3	Business Address	:	Lemabang
4	Age of Business Owner	:	22 years
5	Business Age	:	4 months
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	3
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,000,000 / month
11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	social media



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20

1	Business Name	:	Bomboloni
2	Type of business	:	Food
3	Business Address	:	Jl Prof Dr Soepomo
4	Age of Business Owner	:	21 years
5	Business Age	:	6 months
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	D3
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	500,000 / month
11	What fintech product service to use	:	Bank transfer
12	Where do you get fintech information from	:	Friend

21

1	Business Name	:	Gado-Gado Tante Kan
2	Type of business	:	Food
3	Business Address	:	3 ilir
4	Age of Business Owner	:	40 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	3,000,000 / month
11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	Customer

22

1	Business Name	:	Gorengan Bu Mis
2	Type of business	:	Food
3	Business Address	:	3 ilir
4	Age of Business Owner	:	55 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,050,000 / month



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11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	Customer

23

1	Business Name	:	Bakso Bakar Pandu
2	Type of business	:	Food
3	Business Address	:	3 ilir
4	Age of Business Owner	:	35 years old
5	Business Age	:	4 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	1,200,000 / month
11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	Customer

24

1	Business Name	:	Pempek Umi Sarah
2	Type of business	:	Food
3	Business Address	:	Kuto market
4	Age of Business Owner	:	45 years
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	18,000,000 / month
11	What fintech product service to use	:	OVO
12	Where do you get fintech information from	:	Internet

25

1	Business Name	:	Kripik Makaroni
2	Type of business	:	Food
3	Business Address	:	Jalan Masjid Barat, Lorok Pajo
4	Age of Business Owner	:	21 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	3
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	6,660,000 / month



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11	What fintech product service to use	:	Transfer
12	Where do you get fintech information from	:	Internet

26

1	Business Name	:	Sena Juice
2	Type of business	:	Drink
3	Business Address	:	Jl. PMD Pinasty Rafflesia Housing
4	Age of Business Owner	:	22 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	D3
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	4,000,000 / month
11	What fintech product service to use	:	Gopay
12	Where do you get fintech information from	:	Friend

27

1	Business Name	:	Kedai Li Otonk
2	Type of business	:	Culinary
3	Business Address	:	Jl. Talang Buluh RT 28, Sukamoro
4	Age of Business Owner	:	20 years
5	Business Age	:	1 year
6	Gender of Business Owner	:	L
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	5
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	5,000,000 / month
11	What fintech product service to use	:	Gopay
12	Where do you get fintech information from	:	Social media

28

1	Business Name	:	Bakso Wawa
2	Type of business	:	Food
3	Business Address	:	SU II Housing
4	Age of Business Owner	:	40 years
5	Business Age	:	4 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	2
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	240,000,000 / month



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11	What fintech product service to use	:	OVO and Gopay
12	Where do you get fintech information from	:	Customer

29

1	Business Name	:	Model Telok Lia
2	Type of business	:	Palembang's typical food
3	Business Address	:	Jalan Talang Kemang
4	Age of Business Owner	:	32 years
5	Business Age	:	5 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	1
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	30,000,000 / month
11	What fintech product service to use	:	Gopay
12	Where do you get fintech information from	:	Customer

30

1	Business Name	:	Khobul Mantap
2	Type of business	:	Turkish Kebab Food
3	Business Address	:	Jalan Talang Kemang SU II
4	Age of Business Owner	:	39 years old
5	Business Age	:	3 years
6	Gender of Business Owner	:	P
7	Last Education of Business Owners	:	High school
8	Number of Business Workers	:	0
9	Does your business use fintech services	:	Yes
10	UMKM turnover after using fintech	:	3,000,000 / month
11	What fintech product service to use	:	OVO and Gopay
12	Where do you get fintech information from	:	Internet



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## WORK OVERLOAD AND INTENTION TO STAY: AN INVESTIGATION ON THE MEDIATION OF WORKPLACE SPIRITUALITY AND WELLBEING AT WORK AMONG MILLENNIAL TEACHERS IN INDONESIA

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### Abstract

**Purpose:** This study aimed to investigate the mediating effect of workplace spirituality and wellbeing at work in the relationship between work overload and intention to stay among teachers in private Islamic schools, in the context of millennial teachers.

**Research Methodology:** This study was conducted amongst 363 millennial teachers working in private Islamic schools in Indonesia. Self-reporting questionnaire were administered among the respondents, who were selected through purposive sampling method. Structural equation modeling was done to test the hypotheses.

**Results:** Workplace spirituality and wellbeing at work mediate the relationship between work overload and intention to stay. The findings, suggest that teachers' experience of workplace spirituality and wellbeing at work has significant positive influences on their intention to stay.

**Limitations:** The result can present bias due to the use of self-report data from respondents. Another potential limitation is the cross-sectional nature of the data, which does not control for unobserved individual effects.

**Contribution:** This study is testing a theoretical model linking work overload, workplace spirituality, wellbeing at work, and intention to stay, particularly in the context of millennial teachers. Implications for their experience of workplace spirituality and job outcomes in the specific context of teaching are elaborated, thus striving to fill a gap in the existing literature.

**Keywords:** *Workplace spirituality, Work Overload, Intention to Stay, Wellbeing at Work, Millennials*

### 1. INTRODUCTION

The concept of workplace spirituality has received very wide attention as a prominent field from both practitioners and academics (Aboobaker, *et al.*, 2018). Spiritual experiences at work have been shown to be positively related to employee work behaviour such as job satisfaction, organizational commitment, organizational citizenship behaviour, and organizational performance (Rego and Cunha, 2008; Crawford *et al.*, 2009; Petchsawang and Duchon, 2012; Houghton *et al.*, 2016).

Millennials, who were born between 1982 and 2000, have now entered the workforce in large numbers, and will shape the world of work in the future. Their career aspirations, work attitudes and knowledge of new technologies will define the workplace culture for the 21<sup>st</sup> Century. This generation is important because they fill employment in more numbers than the Baby Boomers generation - who will enter retirement age. In the United States, they already make up 25% of the percentage of workers. In 2020, Millennials are predicted to fill 50% of the total global workforce composition (Rendell, *et al.*, 2011).

According to the Central Statistics Agency (BPS), there are around 83 million people in Indonesia aged 20-40 years, categorized as millennial generation, who are in their productive age. This figure shows that millennials contribute 34% of Indonesia's total population. Considering the number of



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millennial generations entering the workforce in 2020, organizations in Indonesia must prepare their work environment to better suit that generation (Prabowo, *et al.*, 2018). Millennial teachers need supportive mentors to answer their questions, and need principals who understand that positive feedback and reinforcement for their work is important and often needed. If their needs are not met, they will leave school, and possibly the teaching profession. This is a waste for fully certified teachers who graduate from a program that has a good reputation (Clement, 2016).

This research was conducted in the education industry with a teacher analysis unit, and has a higher level of relevance because teaching is a stressful profession (Kidger *et al.*, 2016) and teachers in general are trying to find the meaning and purpose of what they do in the workplace. (Khasawneh, 2011). Only if teachers are able to experience a connection with their work and workplace, can they identify themselves with the profession and organization as a whole (Aboobaker, *et al.*, 2019).

This study takes the unit of analysis among millennial teachers in schools under the Integrated Islamic School Network (JSIT) located in Indonesia. This choice is made because the Integrated Islamic School (hereinafter referred to as SIT) has a curriculum guide that seeks to create balanced teaching between science and other values in it, by integrating various components of activities that are able to form a strong and effective character education. For this reason, these schools apply the concept of full-day school (Robingatin, 2015). Teachers who work in schools that apply the full-day school concept have very high hours of formal work and overtime. This condition affects the work overload experienced by these teachers.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Work Overload

Work Overload or Job Overload, is a major problem experienced by almost all organizational sectors, which can be defined as a condition resulting from long and difficult working hours. Pressure to work overtime, lack of vacation or rest, unreasonable overload of work, and impossibility of expectations about what can be achieved in limited time with available resources (Altaf, 2011). Jin said that Job Stress refers to a mental condition where an individual experiences pressure from adaptation to new jobs and assignments, prejudice and discrimination from the organization and other members of the organization where he works (2019). According to Kahn (1980), work overload can be quantitative, for example, the amount of work that must be done in the given time, or qualitative, for example the ease or difficulty of achieving a given target. With the increasing market needs and increasing competition to survive, so is the Job Overload for workers (Altaf, 2011).

### *Workplace Spirituality*

M. Kinjersky and Skrypnek (2004) define Workplace Spirituality as a specific condition that is recognized by the physical, affective, cognitive, interpersonal, spiritual, and mystical dimensions. Workplace Spirituality is defined at two levels - individual and organizational spirituality. Individual spirituality is the understanding that workers have an inner life that needs to be cared for. Meanwhile, organizational spirituality refers to the "corporate spirit" and is an indication of the work environment provided by employers for workers (Gupta, 2017). Workplace spirituality is "spiritual experiences and expressions in life experienced by a person in the context of work (Sheep, 2006). The pioneering survey conducted by Ashmos and Duchon (2000) produced seven different dimensions of workplace spirituality, including the transcendent aspect. However, only three dimensions were found to be significantly associated with organizational income and employment (Milliman *et al.*, 2003). The transcendent aspect of spirituality is more connected to individual outcomes such as life satisfaction (Zullig *et al.*, 2006).



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### Wellbeing at Work

Dodge et al. (2012) in Aboobaker, *et al.*, (2018) convey a simple definition: "[...] well-being is a balance point between a person's resource pool and the challenges at hand." In studies around the world, it has been found that employee well-being is rapidly declining among academics. More than 50 percent of all teachers reported that teaching was "stressful" or "extremely stressful" (Collie et al., 2012). Low well-being results in reduced work and individual results such as absenteeism, job turnover, and lack of motivation (Brunetto et al., 2012) in Aboobaker, *et al.*, (2018). The well-being of academic members is recognized to have a tremendous impact on student achievement and is therefore very important for achieving educational goals (Capone and Petrillo, 2016).

### Intention to Stay

Intention to Stay refers to the awareness and deep desire of a worker to remain in the organization, because of the pleasure or tendency of him to stay in his job (Tett and Meyer, 1993, in Aboobaker, *et al.*, 2018). The intention or desire of a person determines his behavior, whether someone will do a behavior or not (Kuhlman 2012). The strength of one's intentions will have a significant impact on related behavior.

### Millennial Teachers

Respondents in this study were teachers aged 20 to 40 years when this research was conducted in 2020, where they are included in the Y generation category. Generation Y, which is usually also referred to as the millennial generation, is the generation that appears after Generation X. Gen Y is a term that represents the current generation of young people and was specifically born after the 1980s. Gen Y has different expectations and perceptions about working for a company (Angeline, 2011). Most of the workforce is Gen Y, therefore companies must have a strategy to treat Gen Y so that the company's sustainability continues.

Some of the characteristics of Gen Y that differentiate it from previous generations of corporate culture include (Solnet, *et al.*, 2012); Gen Y's work performance will be better when they work together to achieve a goal, Gen Y also highly values friendship, both personal and professional friendship, and more importantly, Gen Y values and requires trust.

Because Gen Y was born in a generation when technological advances were growing, they were very sensitive to technological advances and information dissemination. This causes Gen Y to have qualified and better technological skills and abilities than the previous generation in terms of work attitudes and operational tactics that are useful for companies going forward (Ramesh, Vasuki, 2013). Gen Y employees also have a high entrepreneurial spirit and are not easily satisfied, so they tend to change jobs until they get a job that matches their soul (Gibson, Greenwood, & Murphy Jr, 2011).

The challenge for the company today is how to create a strategy that makes Gen Y employees feel more at home and satisfied with their jobs at the company. Gen Y is also more concerned with work life balance, pursuing comfort and avoiding the bureaucratic rigidity of organizational systems. In research conducted by Choi, Kwon, and Kim (2012), it is stated that Gen Y has a more positive view of a pleasant work environment than a traditional work environment that is too serious.

Workplace spirituality is nothing new in workforce and organizational research. However, literature reviews regarding the relationship between workplace spirituality and employee wellbeing in relation to the relationship between work overload and intention to stay are still developing. In addition, with an estimation that 58 percent of millennials live in Asia and by 2020, will reach 50 percent of the global workforce (Maslog, 2017, in Aboobaker, *et al.*, 2019), a deeper study is needed on understanding work attitudes and behaviors. them, in order to attract, maintain, and retain them in the value system in the organization.



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When millennial teachers, with different work traits and characteristics from previous generations, have to face work demands in the form of work overloads, organizations need to determine a framework to maintain this generation in the organization. It is, therefore, this study examines how the relationship between work overload and intention to stay among millennial teachers, and proposes workplace spirituality and wellbeing at work to influence how the relationship is, in relation to improving educational organizational outcomes. Henceforth, the following hypotheses were tested for this study:

- H1. Work overload has a significant effect on millennial teachers' intention to stay
- H2. Workplace spirituality mediates the effect of work overload on millennial teachers' intention to stay
- H3. Wellbeing at work mediates the effect of work overload on millennial teachers' intention to stay

### 3. RESEARCH METHODOLOGY

An online questionnaire consisting of 40 questions was developed for this study. Respondents were required to answer the questions on a 6 point Likert scale. Six questions to measure work overload were borrowed from Macky & Boxall (2008). Workplace spirituality was measured using 21 questions scale adapted from Milliman, *et al.* (2003) consisting of three dimensions: meaningful work, sense of community, and alignment with organizational values. The wellbeing at work was measured using Job-Related Affective Well-being scale contains 8 questions that originally developed by Van Katwyk, *et al.* (2000) and a short version developed by Basińska, *et al.* (2014). Meanwhile, four items to measure intention to stay were adapted from three items of Milliman, *et al.* (2018) measurement with additional one item from Jungsun and Gatling (2018).

The author adjusts the agreed and disagree statements based on measurement questions that are in accordance with the existing theory. Next will be described on each measuring instrument. The use of even Likert 1 to 6 with no middle value aims to reduce the tendency of respondents to choose neutral answers in the middle value by avoiding answers in one direction (Likert range agree or disagree). With the use of an even number of Likert scales, the answers will be divided equally into two, namely a negative opinion scale (1 to 3) and a positive opinion scale (4 to 6) (Maholtra and Birks, 2006).

Participants in this study were millennial teachers born within 1982-2000 who have worked for at least one year in private Islamic schools in the scope of Jaringan Sekolah Islam Terpadu (JSIT). JSIT affiliated schools was chosen because they apply full-day school system as one of their organizational strategy (Muhab, *et al.*, 2017) that require teachers to spend more time at school with specific targets to achieved. A minimal tenure of one year was applied to ensure that the teachers are aware and accustomed to the practices in their organizations.

A total of 386 respondents was gathered in this study. However, 23 did not fulfil respondents' criteria such as teaching less than 1 year in current school or were born before the year of 1982-2000, thus leaving sample of  $n = 363$  millennial teachers. The data was then analysed using Lisrel 8.80.

### 4. RESULTS AND DISCUSSIONS

The questionnaires were filled by 280 women (77,2%) and 83 men (22.8%). The majority of respondents belonged to the 27-32 age group (51,9%). Their tenure is 1-5 years in average. They occupy positions ranging from teachers to school principals. Most of the respondents have bachelor's degree (84,5%), followed by those who completed high school degree (9,1%), master (4,9%), and diploma (1,96%). 68,6% of respondents have already married, while 28,3% were single. The respondents were fairly diverse in terms of 34 provinces in Indonesia.

The measurement model was assessed using validity, reliability, and goodness of fit indices. Validity was evaluated by the value of standardized loading factors (SLF), while reliability was evaluated by the value of construct reliability (CR) and variance extracted (VE). The desirable values of SLF, CR, and VE are 0.50; 0.70; 0.50 respectively (Wijanto, 2015). Meanwhile, the goodness of fit indices used were Statistics Chi Square, p-value, RMSEA, SRMR, GFI, ECVI, NFI, NNFI, CFI, RFI, IFI, AGFI, AIC, CAIC, Normed Chi-Square, and Critical “N”.

Almost all indicators in this study were valid. However, three indicators (two of work overload, and one of intention to stay) fell below the desirable cut off of SLF, thus it was omitted. In terms of reliability, all indicators exceeded the minimum threshold of CR yet some of them showed inadequate VE. Construct Reliability (CR) of 0.70 or above and an average variance extracted (AVE) of more than 0.50 suggest good reliability (Hair, *et al.*, 2010). All variables met the criteria, aside AVE of intention to stay with score 0.45. VE results < 0.50 are still acceptable because they are judged to have no fatal impact. Hatcher (1994) in Astrini (2015) states that despite unsatisfactory VE, indicators can still be considered valid as long as the CR fall above 0.60. Therefore, the items in this study were deemed reliable. The variable workplace spirituality included in this study is multidimensional, thus assessment of the second-order measurement model was done. The result showed that the dimensions within the variables were valid and reliable. However, the goodness of fit decreased slightly. Therefore, the model was refined to improve the overall model fit.

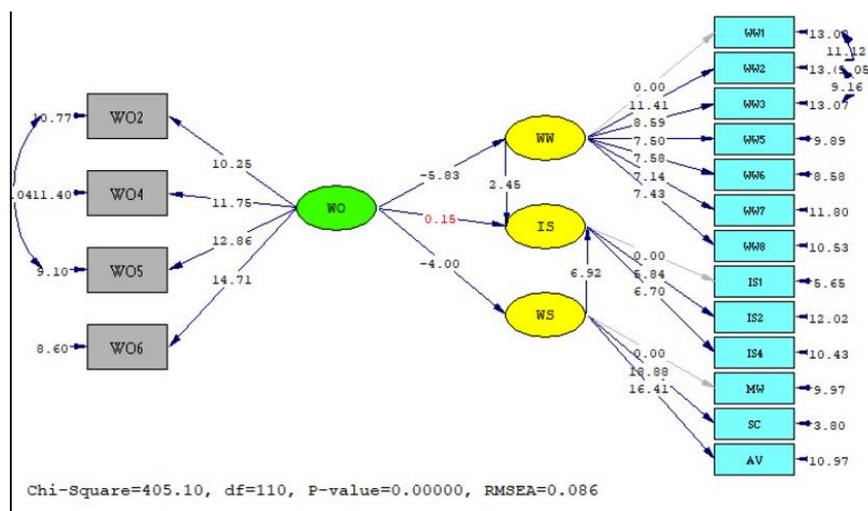
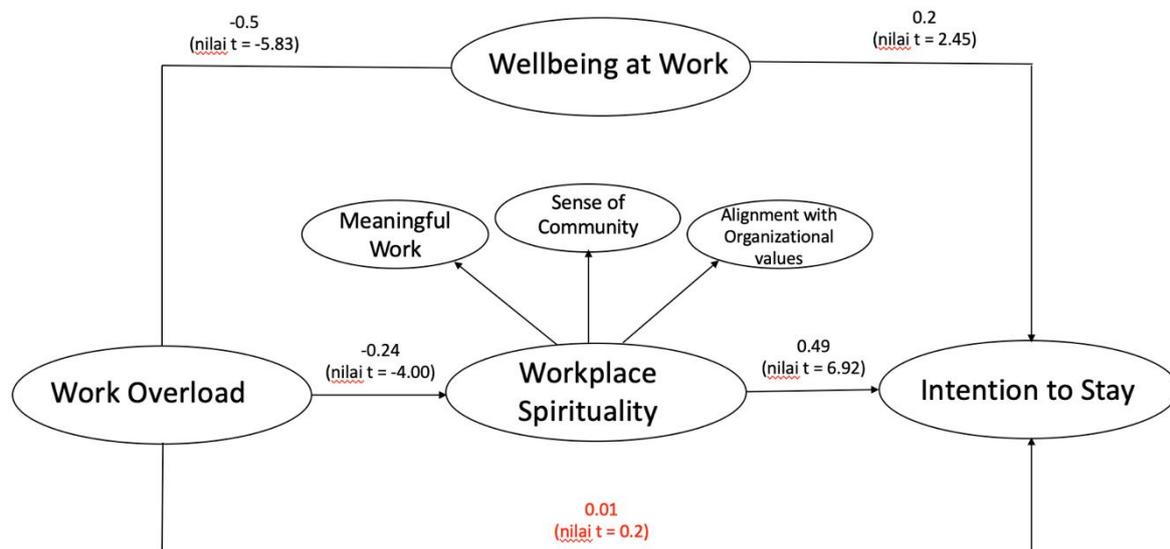


Figure 1. The Measurement Model

The structural model was evaluated on the basis of goodness of fit indices. The model in this study fitted to the data as nine of goodness of fit indices (Normed Chi Square = 1.026 < 3; NFI = 0.92 > 0.90; RFI = 0.91 > 0.90; NNFI, CFI, IFI = 0.930 > 0.90; ECVI, AIC, CAIC model being closer to the saturated than that of the independence) resulted in good fit. The rest showed poor fit (RMSEA = 0.086 > 0.08; Statistics Chi Square = 5,367.03; p-value = 0.00 < 0.05; SRMR = 0.155 < 0.05; GFI = 0.75 < 0.90; AGFI = 0.66 < 0.90; Critical “N” = 62.88 < 200). Despite 7 unsatisfactory goodness of fit indices, overall structural model had a good fit to the data. After ensuring the model fitted the data, the hypotheses developed for this study were tested (please see Figure 2).

In this model, work overload had no direct effect on intention to stay (SLF=0.01; t-value=0.2), suggesting that H1 was not supported. However, work overload was found to have a negative significant effect on workplace spirituality (SLF= -0.24; t-value=-4.00). Workplace spirituality had a positive and significant effect on intention to stay (SLF=0.49; t-value=6.92). Work overload was also found to significantly negative influence to wellbeing at work (SLF= -0.5; t-value=4.74). However, affective commitment had no effect on OCB (SLF=0.02; t-value=0.32). Wellbeing at work had a

positive significant effect on intention to stay (SLF=0.2, t-value=2.45). In this study, workplace spirituality and wellbeing at work were found to fully mediate the effect of work overload on intention to stay due to the insignificant direct effect of work overload on intention to stay and the significant indirect effect. Consequently, H2 and H3 were supported.



**Figure 2. The Structural Model**

This study contributes to literature in emphasizing the outcomes of work overload namely intention to stay and the important role of workplace spirituality and wellbeing at work in bridging the relationship. It especially supports the negative impact of work overload towards intention to stay thus added to the growing body of research that study the relationship.

The findings of this study showed that work overload had no direct effect on intention to stay. Instead, work overload negatively affects workplace spirituality. These results aligned with previous studies (Jin & Lee, 2019). The heightened sense of spirituality in the workplace enhanced resulted in the willingness of the teachers to stay in the organization, which was also supported in prior studies (Altaf, 2011; Aboobaker, *et al.*, 2018). Work overload also negatively affects wellbeing at work. Furthermore, this study also found that workplace spirituality and wellbeing at work fully mediated the effect of work overload on intention to stay. These results suggest that millennial teachers who experienced work overload would not immediately decrease the intention to stay. Rather, experiences of meaningful work, sense of community, and alignment with organizational values are strong driving forces that would influence teachers' willingness to stay in the organizations. However, the construct scores across all dimensions of workplace spirituality were relatively lower for the millennial sample in this study, which was supported in prior studies (Aboobaker, *et al.*, 2019). This, in turn will act as one of the vital sources of competitive advantage for school institutions.

Organizations should pay great attention to employees' well-being to improve employees' performance (Obrenovic, *et al.*, 2020) that contribute to organization's performance and sustainability. Analysis towards employees who are experiencing workplace spirituality and wellbeing at work can be summarized that even though they experience work overload, and they perceive their workplace spirituality and wellbeing at work, then their intention to stay likely to be increased.

When employees are provided with an opportunity to meaningfully identify and express who they are as individuals, in the context of both workplace and the larger society, they exhibit higher organizational resilience and loyalty toward the organization (Gupta, *et al.*, 2014, Aboobaker, *et al.*,



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2019). However, the study did not reveal considerably significant association between work overload and intention to stay (H1 not supported). This outcome is of significance to managers of schools and other educational institutions, as the results imply that just because a teacher find his or her work is stressful, it may not be the case that he/she will have the intention to leave the organization. However, additional efforts may be undertaken by managers to translate the experience of workplace spirituality into favourable job attitudes (Willemse and Deacon, 2015) that will hopefully increase teachers intention to stay in the organization.

### 5. CONCLUSION

The study result showed that the two main hypotheses were supported as explained in research findings. Workplace spirituality and wellbeing at work were found to be fully mediating the impact of work overload towards intention to stay of millennial teachers in schools.

This study contributes to an understanding of the result as follows: work overload which experienced by millennial teachers who work in a full-day school has a significant negative effect on workplace spirituality. The findings also imply that the teachers' wellbeing in organizations is important in strengthening millennial teachers' intention to stay in the organization. Managerial efforts should be more focused on facilitating programs that related to spirituality in the workplace, such as community-building programs to realize their teachers employment goals and flourish enduring relationships with their organizations (Aboobaker, *et al.*, 2019).

### LIMITATION AND STUDY FORWARD

Our study was conducted among teachers in private sector and it is recommended for future researchers to consider testing the conceptual model among a larger and more representative sample of teachers, including teachers in public sector institutions. The role of various demographic factors in influencing the relationships was not taken into consideration. Future studies may also investigate the role of gender, marriage, years of teaching, career choice, etc., as moderating factors that could further explain the intention to stay.

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## THE EFFECT OF SERVICE QUALITY AND PROMOTION ON CUSTOMER SATISFACTION ONLINE GO-RIDE TRANSPORTATION SERVICES IN PALEMBANG CITY

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### Abstract

**Purpose:** This study aims to analyze empirically the effect of service quality and promotion on consumer satisfaction of online go ride transportation services in Palembang City.

**Research Methodology:** This research was conducted in Palembang City with the object of research being people who live in Palembang city at least 17 years old and have used Go-ride services at least 10 times in the last 3 months. The sampling technique included in the non probability sampling technique in this study used accidental sampling. The analysis technique in this research uses descriptive analysis techniques and hypothesis testing (multiple linear regression analysis).

**Results:** The estimation results show that service quality and promotion have a positive and significant effect on consumer satisfaction of online go ride transportation services in Palembang

**Limitations:** Limitations in this study include the number of variables involved is still very limited, namely service quality, promotion and customer satisfaction. The data collection method uses a questionnaire, so it is very possible that the data is subjective, it would be better to add an interview method to go-ride and customers so that the research results obtained are more complete.

**Contribution:** The results of this study are expected to be a consideration for online transportation service companies to formulate strategies to increase customer satisfaction for service users, so as to improve marketing performance.

**Keywords:** *Service Quality, Promotion, Customer Satisfaction*

### 1. INTRODUCTION

In the current era of globalization, service businesses are increasingly diverse in order to meet people's needs. According to Setiyanto (2016), means of transportation and communication cannot be separated from human life because these two things are often used to facilitate all human work. The use of technology is not only in the field of communication, but technology is used in the fields of education, economy, agriculture, security and transportation.

Transportation services are currently considered important, especially with the increasing population of an area. For example, urban areas, with a larger population and a high flow of people mobility and also the problem of congestion, are the reasons why people are more selective in choosing means of transportation that are able to move to their destination, faster time, affordable prices, good service quality, and safe.

The number of motorized vehicles in Indonesia in 2015 reached 121.39 million units. Data from the Central Bureau of Statistics (BPS) shows that from this figure the most motorbikes were with a total of 98.88 million units (81.5%) of the total vehicles.

The number of motorized vehicles in Indonesia in 2015 reached 121.39 million units. Data from the Central Bureau of Statistics (BPS) shows that most of these numbers are motorbikes with a total of 98.9 million units (81.47%) of the total vehicles. Passenger cars were 13.5 million units (11.12%), freight cars 6.6 million units (5.44%), and buses 2.4 million units (1.98%) (www.databoks.katadata.co.id, accessed on 11 November 2019).

Along with the development of technology there are applications that introduce ojek ordering services using technology and using service standards where ojets are ordered and paid for in an online system. One of the online motorcycle taxi service providers is PT Gojek Indonesia or what is called Go-ride. Go-Jek was founded in 2011 by an Indonesian who graduated from Harvard University, Nadiem Makarim. In January 2015, the company launched a location-based search-based Gojek mobile application for android and iOS (apple) based smartphones. Go-jek has operations in 50 cities from 30 provinces in Indonesia.

In the midst of this intense competition, transportation service companies are competing to gain as much market share as possible so that it will become a service that is expected to become a market leader or market leader among products. According to data disclosed by Robin Muliady, who is the Media Director of Go-Jek's Consumer Choices, he has become the market leader in application-based transportation with a fleet of 500,000 Go-Jek drivers spread throughout Indonesia. One of the main keys to the company's success is customer satisfaction because nowadays customers are increasingly selective in choosing one of the alternative choices as desired.

Based on the observations made by the author at the Sriwijaya University Palembang, it is known that 7 out of 10 people who use online motorcycle taxi transportation services choose Go-Ride as their online transportation tool, for various reasons, including safer, more comfortable, cheap and fast.

According to Kotler & Keller (2016) satisfaction is the feeling of being happy or disappointed by someone that arises from comparing the perceived performance of the product (or results) against their expectations. The theory that explains how customer satisfaction or dissatisfaction is formed is "The Expectancy Disconfirmation Model" which states that satisfaction and dissatisfaction is the impact of the comparison between expectations and what the customer actually gets from the product purchased. Customer satisfaction and dissatisfaction with Go-Ride can be conveyed by customers by providing a rating or value to Go-Ride services that have provided services to customers. The rating for the Go-Ride service consists of five stars chosen by the customer. The more stars that are given means the service provided is more satisfying.

Go-Jek customer satisfaction can also be seen on the playstore page for Android-based mobile phones. Customers can also provide ratings and reviews of Go-Jek services. Observations made in April 2019 showed a rating as shown below:



source: Android playstore (accessed April 5, 2019)

**Figure 1: Go-Jek Ratings and Reviews on the Andorid Playstore**



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From the reviews in Figure 1, Go-Jek's customer rating is 4.5 out of 5. This proves that the level of satisfaction is high. In Figure 1 there are also two customer reviews regarding Go-Jek's services.

The Indonesian Consumers Foundation (YLKI) conducted a survey of users of online transportation services (ride hailing) on April 5-16 2018 involving 4,668 respondents spread across 7 major cities such as Jakarta, Bandung, Surabaya, Medan, Palembang, Makassar, and Semarang. Respondents consisted of 55% male and 45% female. The survey results stated that the level of customer satisfaction was 59% of respondents who were satisfied while 41% had experienced disappointment with online transportation. The following data describes customer disappointments or complaints against online motorcycle taxis according to YLKI.

**Table 1: Complaints from YLKI Online Ojek Survey Customers**

No	Types of complaints from online motorcycle taxi customers	Total
1	Driver asked to cancel	22,30%
2	It's hard to get a driver	21,19%
3	Drivers cancel unilaterally	18,72%
4	Application map error	16,00%
5	License plates are not the same as the vehicle being carried	12,00%
6	The driver didn't come	6,30%
7	The condition of the vehicle is not good	6,00%
8	Drivers are dishonest with consumers	5,00%
9	Drivers embark on a journey before meeting consumers	4,97%
10	Inconsiderate driver	4,70%
11	The vehicle smells of cigarette smoke	4,60%
12	Driver nagging	2,80%
13	Driver smokes while driving	0,72%

Source: [www.ylki.co.id](http://www.ylki.co.id) (accessed on March 25, 2019)

One of the factors that influence customer satisfaction is service quality. According to Parasuraman (2014) service quality includes several aspects which include: the ability to provide immediate and satisfactory service (reliability), the desire of employees to help customers and provide responsive service (responsiveness), ability, politeness, and trustworthiness of employees. (assurance), ease of establishing good communication relationships and sincere attention to customers (empathy), and evaluation of physical facilities (tangibles).

The services offered by Go-Jek are very diverse, such as go-food, go-send, go-life, go-tix, go-car, go-glam, go-bluebird, go-pulse, go-massage, go-laundry, go -fix, go-clean, go-auto, go-glam, go-bills, go-shop, go-mart, go-box, go-daily, go-med, go-deals, go-points, and go- nearby. This research discusses the quality of service on Go-Ride services because by utilizing these services, customers can experience services from ordering to their destination.

PT Gojek Indonesia as a pioneer company that initiated online motorcycle taxi transportation services was able to market share and the Go-Jek brand has been embedded in the minds of the public. With the Go-Jek brand in the minds of the public, they will remember the green ojek, often seen on the streets, and even often in pronunciation, people often mention Go-Jek even though consumers use other online transportation services.

Promotion is a marketing program that can increase the sales success of the product. This is because consumers need information about the product before making the purchase process. In essence, promotion is a form of marketing communication, namely marketing activities that attempt to spread information, influence or persuade, and / or remind the target market of the company and its products

to be willing to accept, buy, and be loyal to the products offered by the company concerned (Tjiptono, 2014). So promotion can be the basis of information that consumers have to make purchases.

The promotion strategy requires one very important aspect, namely a communication tool as a means of channeling the message that the company wants to convey to consumers so that messages can be easier to understand and consumers can know with certainty about the information about the product. In the world of marketing, the term "media" means a means of communication such as newspapers, magazines, radio, television, billboards, pamphlets, and the internet. Advertisers use the media to convey commercial messages to their target market, and these media depend on different levels of advertising spending to cover these operational expenses (Rajagopal, 2012).

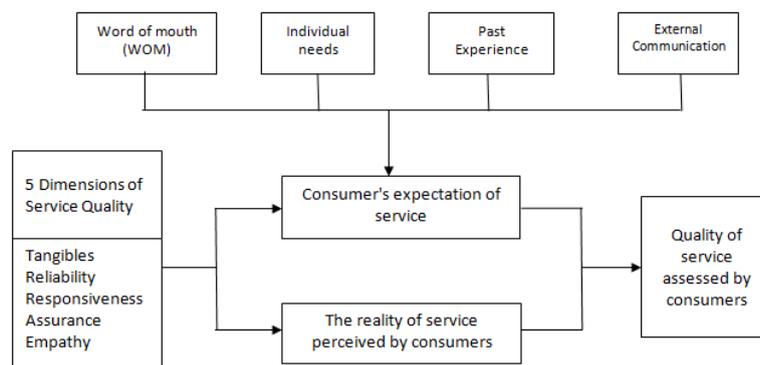
The rapid development of online transportation services, especially Go-Ride, is one of the reasons for the need for an in-depth study, especially from the customer's perspective. How does a customer respond to online transportation called Go-Jek, how does a customer consider the quality of service when using this transportation service because he has become a pioneer or top of mind in terms of online motorcycle taxi transportation in Indonesia.

Based on the description, it is felt to be interesting to conduct research on "Comparative Study of Service Quality and Promotion of Customer Satisfaction of Go-Ride Online Transportation Services in Palembang City."

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Service quality

According to Parasuraman (2014), the concept of expected and perceived service quality is determined by service quality. The quality of the service consists of responsiveness, assurance, physical evidence, empathy and reliability. In addition, the expected service is strongly influenced by various perceptions of word of mouth communication, personal needs, past experiences and external communication, this perception is what influences the service expected ( $E_p$  = Expectation) and the service perceived ( $P_p$  = Perception) the concept of service quality. More details can be shown in the image below:



Source: Parasuraman (2014)

**Figure 3: Customer Assessment of Service Quality**

Mowen and minor (2012) define service quality as a comprehensive customer evaluation of the goodness of goods and services. The main issue in assessing product performance is what dimension consumers use to evaluate it.

Parasuraman (2014) states that the concept of service quality is a complex understanding of quality, satisfying or unsatisfactory. The concept of service quality is said to be of quality if the expected



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service is smaller than the perceived service (quality). It is said that the concept of service quality meets expectations, if the expected service is the same as that which is felt (satisfying). Based on the above understanding, there are three levels of service quality concept, namely:

1. Quality (quality surprise), if the fact that the service received exceeds the service expected by the customer.
2. Satisfactory (satisfactory quality), when the fact that the service received is the same as the service expected by the customer.
3. Unacceptable quality, if in fact the service received is lower than the customer expected.

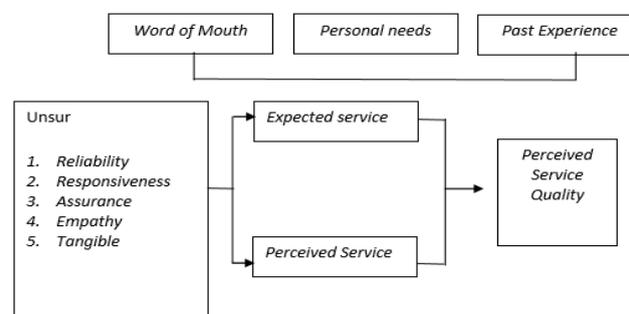
The description above becomes an assessment in determining various types of service quality measurement models. Kotler & Keller (2016) defines service (service) is all actions or performance offered by one party to another party which is essentially intangible (intangible) and does not result in any ownership.

First, services or services differ according to whether they are human-based or equipment-based. The accuracy of the service marketing strategy of a company is determined by the perceived service quality offered and measured by the service performance / perceived service and consumer expectation. The success or ability of a company's service quality is assessed in displaying the elements of service quality.

Parasuraman (2014) suggests five main dimensions of service quality, as follows:

1. Reliability, related to the company's ability to provide accurate service from the first time without making any mistakes and delivering its services according to the agreed time.
2. Responsiveness, with regard to the willingness and ability of employees to help customers and respond to their requests, and to reflect when services will be provided and then provide services quickly.
3. Assurance, namely the behavior of employees is able to foster customer trust in the company and the company can create a sense of security for its customers. Assurance also means that employees are always up to date with the knowledge and skills needed to handle any customer question or problem.
4. Empathy (empathy), means that the company understands the problems of its customers and acts in the interests of customers, as well as giving personal attention to customers and having comfortable operating hours.
5. Physical evidence (tangibles), relating to the attractiveness of physical facilities, equipment and materials used by the company, as well as the appearance of employees.

The success or ability of a company's service quality is assessed in displaying the elements of service quality. The dimensions of service quality that customers perceive are shown in the following figure:



Source: Tjiptono (2014)

**Figure 4: Dimensions of Service Quality Perceived by Customers**



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## Promotion

Promotion is one of the important variables in the marketing aspect, according to Kotler and Keller (2016) promotion is one of the variables of the marketing mix that is important for companies to market their products by advertising or other activities that aim to encourage demand for products.

The definition of promotion explains that promotional activities are used to provide information to consumers about products or services. Promotion has several types of media or promotional channels. Solomon and Stuart (2003) argue "advertising is a form of non-personal communication paid for by sponsors who use the mass media to tell or inform something to consumers". There are several types of advertising promotions that are commonly used, such as newspapers, direct mail television, radio, magazines, billboards or billboards, brochures, telephones, and the internet.

Kotler & Keller (2016) suggest that promotion has component components summarized in the promotional mix which consists of:

1. Advertising (advertising)  
Advertising is all forms of non-personal presentation and promotion of ideas, goods or services paid for by certain sponsors. Advertising is one of the four main tools a company uses to facilitate persuasive communication with buyers and the public. This persuasive communication is intended to create a satisfying exchange.
2. Sales promotion  
Sales promotion is a promotional activity other than advertising, personal selling, and publicity. Activities included in the sales promotion category include: demonstrations, exhibition performances, demonstrations and so on. Usually this activity is carried out in conjunction with other promotional activities and the cost is relatively cheaper than advertising and personal selling. In addition, sales promotions are also more flexible because they can be done at any time.
3. Face to face sales (personal selling)  
In personal selling, there is direct interaction, face to face meeting between the buyer and the seller. Communication made by both parties is individual and two-way, so that the seller can directly get feedback about the wishes of the buyer. Their delivery of news or conversations is very flexible because it can adapt to the current situation.
4. Publicity  
Publication is part of a broader function, namely public relations and maintaining a beneficial relationship between the organization and the community as well as potential buyers. The definition of publicity itself is a number of information about a person, goods or organization that is disseminated to the public through the media without being charged or supervised by sponsors.
5. Direct Marketing  
Direct Marketing is an interactive marketing system that uses one or more advertising media for measurable responses and / or transactions anywhere

## Customer satisfaction

The word satisfaction (satisfaction) comes from the Latin "satis" (meaning good enough, adequate) and "facio" (doing or making). Satisfaction can be defined as "fulfillment efforts". Satisfaction is a feeling of pleasure or disappointment for someone that arises because of comparing the perceived performance of a product or service against their expectations (Kotler and Amstrong, 2012).

According to Tjiptono (2014) customer satisfaction is an after-purchase evaluation in which the chosen alternatives at least give results (outcomes) equal to or exceed customer expectations, while dissatisfaction arises if the results obtained do not meet customer expectations.



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Yuliarmi and Riyasa (2014) state that customer satisfaction is a function of the difference between the performance produced and the expectations that performance has been compared.

Kotler and Keller (2016) explain that consumer satisfaction is a feeling of pleasure or disappointment that arises from comparing the product's perceived performance (or results) against their expectations.

Mardikawati and Farida (2013) argue that indicators of customer satisfaction in transportation services are:

1. The suitability of the service as expected, in this case related to the perception of the customer whether the quality of the service received is in accordance with what has been promised by the service provider against customer expectations.
2. The suitability of the service with the tariff paid, in this case, is related to the customer's perception of how they feel whether the service they receive is in accordance with the fee or rate they have paid to consume the service.
3. Customer satisfaction with the services offered, in this case related to the perception of whether or not the customer is satisfied with the services offered compared to other service providers

Understanding the needs and wants of consumers in this case is an important thing that affects customers. Consumers who use services, in this case, customers who have been satisfied are a very valuable asset because if they are satisfied, the service user will continue to use the service according to his choice, but if not satisfied the user will tell twice as badly about the experience he has experienced.

Basically, customer satisfaction and dissatisfaction with a product or service will affect the subsequent behavior patterns. If the service or service user is satisfied, then he will show the big possibility to return to using the same service or service, namely Go-Jek. Satisfied users of service programs are also likely to give good references to services or services.

According to Tjiptono (2014) several methods companies use to monitor customer satisfaction, including:

1. The complaint and suggestion system provides an opportunity for customers to submit suggestions, complaints and customer opinions regarding products or services. This method is passive, so it is rather difficult to get a complete picture of customer satisfaction or dissatisfaction. Not all dissatisfied customers will complain, customers may switch to other service providers and no longer use the service provider.
2. Customer satisfaction survey. Customer satisfaction surveys can be conducted by means of a questionnaire, either by post, telephone or by personal interview. Through a survey the company will get responses and feedback directly from customers as well as give a positive sign that the company is paying attention to its customers. Measuring customer satisfaction through this method can be done in various ways, including:
  - a. Directly Reported Satisfaction: Measurements are made directly to consumers through statements such as how satisfied you are with the company's services with the following scale: very dissatisfied, dissatisfied, unsatisfied, satisfied, very satisfied.
  - b. Derived dissatisfaction: the statement filed concerns two main things, namely the amount of consumer expectations for certain attributes, and the amount of performance they feel
  - c. Problem analysis: consumers who become respondents are asked to reveal two main points. First, the problems they face are related to the company's offerings. Second, suggestions for improvement.
  - d. Importance-performance analysis: in this technique, respondents are asked to rank the various elements / attributes.



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## Previous Research

Mar'ati (2016) The Effect of Service Quality and Price on Customer Satisfaction of Online Ojek Transportation Services (Study on Go-Jek Consumers in Surabaya). The results showed that service quality and price had a significant effect on customer satisfaction both simultaneously and partially

Aghnia Anumillah (2016) The Effect of Service Quality on Customer Satisfaction (Study on Go-Jek Consumers in DKI Jakarta). The results of this study indicate that the independent variables of service quality have an effect on customer satisfaction.

Sheng & Liu (2010) An empirical study on the effect of e-service quality on online customer satisfaction and loyalty. The results show that efficiency and fulfillment have a positive effect on customer satisfaction, and fulfillment and privacy have a positive effect on customer loyalty. However, besides that, customer loyalty is positively influenced by customer satisfaction.

Rehman (2012) Customer satisfaction and service quality in Islamic banking A comparative study in Pakistan, United Arab Emirates and United Kingdom. The results reveal that Pakistani and British Islamic banking customers consider assurance, reliability and empathy as significant factors for customer satisfaction, while customers of the Arab Emirates Unit consider assurance and tangibility as significant dimensions of satisfaction.

Joon & Sik (2013) The impact of outcome quality, interaction quality, and peer-to-peer quality on customer satisfaction with a hospital service. The results showed that the quality of the results, the quality of the interactions, and the quality of peer-to-peer perceptions significantly affected customer satisfaction, which, in turn, greatly affected customer loyalty.

## 3. RESEARCH METHODOLOGY

This research was conducted in Palembang City with the object of research being people who live in Palembang city at least 17 years old and people who have used Go-ride services at least 10 times in the last 3 months. This study uses descriptive quantitative regression data because it aims to determine the effect of two research variables, namely the independent variable on the dependent variable by using the sample testing formula. The sampling technique included in the non probability sampling technique in this study used accidental sampling.

The analysis technique in this study uses descriptive analysis techniques and hypothesis testing (multiple linear regression analysis) and data feasibility testing in the form of validity, reliability and classical assumptions. Descriptive analysis aims to describe or explain the description under study based on data from the variables obtained, and is not intended for hypothesis testing. Qualitative descriptive analysis aims to describe all research variables (Service Quality, Promotion and Customer Satisfaction). The presentation of the results of descriptive analysis is usually in the form of frequencies and percentages, cross tabulations, various forms of graphs and diagrams on categorical data, and in the form of group statistics such as mean values (Azwar, 2012). Simple linear regression analysis is used to measure the independent variable on the dependent variable, namely service quality on customer satisfaction and promotion on customer satisfaction. Data analysis using multiple regression methods was carried out by researchers using the SPSS program.

X1 and X2 as independent variables, Y as dependent variables. The relationship equation model in the moderated regression analysis is as follows:

$$Y_1 = a_0 + a_1X_{11} + a_2X_{12} + e_1$$

Where :



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- $Y_1$  : The dependent variable is Go-ride customer satisfaction  
 $a_0$  : constant  
 $a_1$  : regression coefficient of Go-ride service quality variable  
 $X_{11}$  : quality of Go-ride service  
 $a_2$  : Go-ride promotion variable regression coefficient  
 $X_{12}$  : Go-ride promotions  
 $e_1$  : error term

## 4. RESULTS AND DISCUSSIONS

### Data Instrument Test

Validity shows the extent to which measuring instruments are used to measure what is being measured. The method is to correlate the scores obtained on each question item with the individual's total score.

Validity testing was carried out with the help of a computer using the SPSS for Windows Version 22.0 program. In this study, the validity test was carried out on 100 respondents. Decision making is based on the value of rcount (Corrected Item-Total Correlation) > rtable of 0.1966, for  $df = 100 - 2 = 98$ ;  $\alpha = 0.05$  then the item / question is valid and vice versa.

Based on the results of the calculation of the validity test of the Gojek customer satisfaction variable with 8 question items, they are as follows:

**Table 2 Results of the Validity Test for Gojek Customer Satisfaction Variables ( $Y_1$ )**

No	Corrected Item Value		Criteria
	Total Correlation / $r_{hitung}$	$r_{table}$	
1	0,832	0,1966	Valid
2	0,893	0,1966	Valid
3	0,790	0,1966	Valid
4	0,848	0,1966	Valid
5	0,910	0,1966	Valid
6	0,849	0,1966	Valid
7	0,800	0,1966	Valid
8	0,740	0,1966	Valid

Source: Processed Data, 2020

Based on Table 2, it can be seen that all questions for the variable customer satisfaction method have a valid status, because the value of rcount (Corrected Item-Total Correlation) > r table is 0.1966. Based on the results of the calculation of the validity test of the service quality variable with 12 question items, it is as follows.

**Table 3 Results of the Validity Test of Service Quality Variables ( $X_{11}$ )**

No	Corrected Item Value		Criteria
	Total Correlation / $r_{hitung}$	$r_{table}$	
1	0,702	0,1966	Valid
2	0,697	0,1966	Valid
3	0,668	0,1966	Valid
4	0,638	0,1966	Valid
5	0,797	0,1966	Valid
6	0,808	0,1966	Valid



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7	0,628	0,1966	Valid
8	0,679	0,1966	Valid
9	0,785	0,1966	Valid
10	0,852	0,1966	Valid
11	0,583	0,1966	Valid
12	0,798	0,1966	Valid

Source: Processed Data, 2020

Based on Table 3, it can be seen that all questions for service quality variables that have 12 questions, have a valid status, because the value of  $r_{count}$  (Corrected Item-Total Correlation)  $>$   $r_{table}$  is 0.1966.

Based on the results of the calculation of the validity test of the promotional variables with 9 question items, they are as follows.

**Table 4 Results of the Validity Test of Promotion Variables ( $X_{12}$ )**

No	Corrected Item Value		Criteria
	Total Correlation / $r_{hitung}$	$r_{table}$	
1	0,600	0,1966	Valid
2	0,547	0,1966	Valid
3	0,541	0,1966	Valid
4	0,530	0,1966	Valid
5	0,685	0,1966	Valid
6	0,763	0,1966	Valid
7	0,683	0,1966	Valid
8	0,650	0,1966	Valid
9	0,790	0,1966	Valid

Source: Processed Data, 2020

Based on Table 4, it can be seen that all questions for the promotional variable are valid with  $r_{count}$  (Corrected Item-Total Correlation)  $>$   $r_{table}$  of 0.1966 or in other words, the value of  $r_{count}$  for the promotional variable is greater than  $r_{table}$ .

The reliability test was carried out on the question items which were declared valid. A variable is said to be reliable or reliable if the answers to the questions are always consistent.

The instrument reliability coefficient is intended to see the consistency of the answers to the statement items given by the respondent. The analysis tool uses the split half method by correlating the total odd vs even scores, then the reliability is calculated using the "Alpha Cronbach" formula. The calculation is carried out with the help of the SPSS program computer. The reliability for each of the result variables is presented in the following table:

**Table 5 Reliability Test Results**

No	Variable	$R_{alpha}$	r-critical	Criteria
1	Go-ride Customer Satisfaction ( $Y_1$ )	0,956	0,60	Reliable
2	Quality of Service ( $X_{11}$ )	0,937	0,60	Reliable
3	Promotion ( $X_{12}$ )	0,890	0,60	Reliable

Source: Processed Data, 2020

Based on Table 5, the reliability test was carried out on the question items which were declared valid. A variable is said to be reliable or reliable if the answers to the questions are always consistent. So the results of the reliability coefficient of the Go-ride customer satisfaction instrument are 0.956,

the service quality instrument is 0.937, and the promotional instrument is 0.890, it turns out to have a value of "Alpha Cronbach" greater than 0.60, which means that the three instruments are declared reliable or meet the requirements.

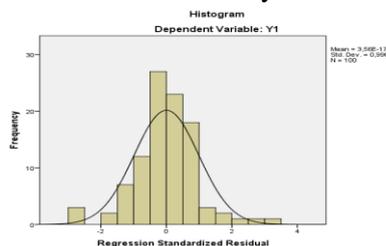
## DISCUSSION OF RESULTS

### Go-Ride Classic Assumption Test Results

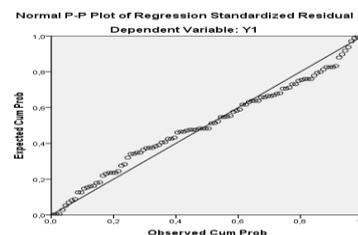
This classical assumption test aims to test the feasibility of the multiple regression model used in this study. This test is also intended to ensure that the regression model used is absent, multicollinearity and heteroscedasticity. The results of the assumption test are as follows:

### Go-Ride Normality Test Results

The Go-Ride normality test results based on the plots analysis are as follows:



**Figure 5 Normality Test**



**Figure 6 Normality Testing –Scatterplot**

From Figure 5 above shows the bar histogram from the Go-Ride normality test results, it can be seen that the data distribution is distributed according to the distribution of the normal curve. Thus, it can be said that the data in this study were normally distributed. This result is supported by the results of the scatterplot in Figure 6, which shows that the data used in the study has spread out on a diagonal axis. If the points move away or spread and do not follow the diagonal line, this indicates that the residual value is not normally distributed. Based on these results, the points resulting from the analysis still follow the diagonal line, so the data is normally distributed.

### Go-Ride Multicollinearity Test Results

The multicollinearity test aims to test whether the regression model found a high correlation between the independent variables. If there is a high correlation, then there is a multicollinearity problem. A good regression model should not have a high correlation between the independent variables.

Testing the presence or absence of multicollinearity symptoms is done by looking at the VIF (Variance Inflation Factor) and Tolerance values. If the VIF value is below 10, then the regression value does not have a multicollinearity problem. The multicollinearity test results of the marketing performance equation model are presented in table 10 below:

**Table 10 Multicollinearity Test on Go-Ride Customer Satisfaction Model Regression Coefficients<sup>a</sup>**

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1 Quality of Service (X <sub>11</sub> )	,682	1,467
Promotion (X <sub>12</sub> )	,682	1,467

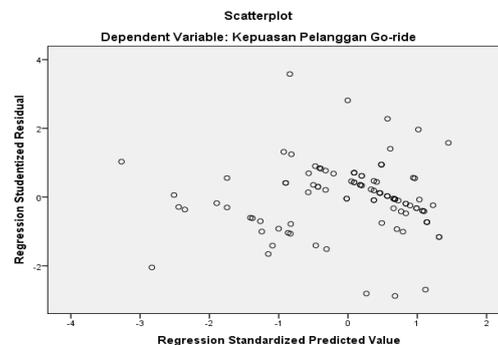
a. *Dependent Variable:* Go-ride Customer Satisfaction (Y<sub>1</sub>)

Source: Processed Data, 2020

Based on Table 10, it can be seen that the VIF value for the service quality variable for Go-Ride produces a value of 1.467, and the promotional variable is 1.467. The results of the multicollinearity test with the VIF value of each variable showed a value less than 10.00. For the results of the tolerance value for the service quality variable, the value is 0.682, and the promotion variable is 0.682. The tolerance value for each variable shows a value of more than 0.10, so it can be concluded that there is no multicollinearity relationship in the Go-ride customer satisfaction regression equation model.

### Go-Ride Heteroscedasticity Test

Heteroscedasticity test to detect the presence or absence of heteroscedasticity is by looking at the plot graph between the predicted value of the dependent variable, namely ZPRED and the residual SRESID. If there is a certain pattern such as dots that form a certain regular pattern, heteroscedasticity has occurred. Conversely, if it does not form a certain regular pattern, heteroscedasticity will not occur.



**Figure 9 Go-Ride Heteroscedasticity Test**

Based on the picture above, it can be concluded that the results of data analysis for the three variables, both go ride, do not form a certain regular pattern, so it can be said that heteroscedasticity does not occur.

### Estimation Results of the Go-Ride Research Models

The results of the regression equation for the variable marketing performance, special capabilities and customer demands of Go-Ride can be shown in table 12:

**Table 12 Go-Ride Multiple Linear Regression Results**

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	9,245	2,581		3,583	,001
Quality of Service (X <sub>1</sub> )	,260	,066	,375	3,965	,000
Promotion (X <sub>2</sub> )	,320	,087	,349	3,699	,000

*a. Dependent Variable: Go-ride Customer Satisfaction (Y<sub>1</sub>)*

Source: Processed Data, 2020

Based on the results of statistical calculations as in table 12, the multiple linear regression equation is obtained on the following consumptive behavior:



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$$Y = 9.245 + 0,260X_1 + 0,320 X_2 + e_i$$

Information :

- $X_{11}$  : Quality of Service  
 $X_{12}$  : Promotion  
 $Y_1$  : Go-ride Customer Satisfaction

The estimation results show that the coefficient value for the Service Quality variable ( $X_{11}$ ) is 0.260 and has a positive relationship, which means that when the service quality variable increases, the Go-ride customer satisfaction variable will also increase by 0.260 with a probability value of  $0.000 < 0,05$ , the degree of error is 5%, so it is statistically significant and has an effect on Go-ride customer satisfaction.

The coefficient value for the Promotion variable ( $X_{12}$ ) is 0.320 and has a positive relationship, which means that when the need for promotion increases, the Go-ride customer satisfaction variable will also increase by 0.320 with a probability value of  $0.000 < 0.05$  degrees of error of 5 % so it is statistically significant and affects Go-ride customer satisfaction.

### Significance Test Results (F Test, t Test, and Rsquared) Go-Ride

The F test is performed to see the effect of the independent variables on the dependent variable collectively or as a whole. The parameter is if the F-count value is greater than the F-table value or the F-count probability value is smaller than the alpha ( $\alpha$ ) value, it can be said that overall the independent variables in the model have a significant effect on the dependent variable. The following is a table of the results of the F Test below:

**Table 14 Go-Ride F Test Results**  
ANOVA<sup>a</sup>

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	864,583	2	432,291	33,707	,000 <sup>b</sup>
	Residual	1244,007	97	12,825		
	Total	2108,590	99			

a. Dependent Variable: Y

b. Predictors: (Constant), X1, X2

Source: Processed Data, 2020

Based on Table 14, it is obtained that the Fcount value is 33,707 and a significance value of 0,000 then Ftable is calculated with df 1 (the number of free variables is 2) and df 2 (the number of samples is  $100 - 2 - 1$ ) with a significance level of 0.05, the value is 3.09. Illustrates that  $F_{count} > F_{table}$  with a significance value below 0.05. Thus,  $H_0$  is rejected, which means that the variable quality of service and promotion has a significant effect on Go-ride customer satisfaction.

The t test is used to determine whether the independent variable partially affects the dependent variable or not. The t test results are shown in table 16:

**Table 16 Go-Ride t Test Results**

		Coefficients <sup>a</sup>				
		Unstdanardized Coefficients		Stdanardized Coefficients	T	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	9,245	2,581		3,583	,001
	Quality of Service ( $X_1$ )	,260	,066	,375	3,965	,000
	Promotion ( $X_2$ )	,320	,087	,349	3,699	,000



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a. *Dependent Variable: Go-ride Customer Satisfaction (Y)*

Source: Processed Data, 2020

Table 16 shows that the t count of the service quality variable on Go-ride customer satisfaction is 3,965 with a t-table value of 1.660, the significance of 0.000 is less than 0.05. Based on the decision criteria  $t_{count} > t_{table}$  ( $3,965 > 1,660$ ), it means that  $H_0$  is rejected, which means that service quality has a significant effect on Go-ride customer satisfaction. Meanwhile, the promotion variable on Go-ride customer satisfaction is 3,699 with a t-table value of 1,660, the significance of 0,000 is less than 0.05. Based on the decision criteria  $t_{count} > t_{table}$  ( $3,965 > 1,660$ ), it means that  $H_0$  is rejected, which means that promotion has a significant effect on Go-ride customer satisfaction.

The value of the coefficient of determination (R-squared) illustrates the ability of the regression model to explain variations in the dependent variable, while values outside the coefficient of determination ( $1 - R^2$ ) are explained by other factors outside the research analysis model. The following table below is the test results of the Determination Coefficient  $R^2$ :

**Table 18 Results of Testing the Coefficient of Determination of the Go-Ride Marketing Performance Model**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,640 <sup>a</sup>	,410	,398	3,581

a. Predictors: (Constant), X1, X2

Source: Processed Data, 2020

The R-square value in the regression equation is 0.410 or 41 percent, meaning that the variation of the independent variables used in the service quality and promotion model is able to explain 41 percent of the variation of Go-ride customer satisfaction variables, while the remaining 59 percent is explained by other variables that are not included in this research model.

### 5. CONCLUSION

Based on the analysis and discussion of the Comparative Study of Service Quality and Promotion on Customer Satisfaction of Go-Ride Online Transportation Services in Palembang City, the following conclusions can be drawn:

1. Quality of Go-ride Service has a significant effect on Customer Satisfaction of Online Transportation Services in Palembang City. This is evidenced by the t value of 3.965 with a significance value of 0.000 less than 0.05 ( $0.000 < 0.05$ ), and the variable regression coefficient of Go-ride service quality of 0.260.
2. Go-ride promotion has a significant effect on Customer Satisfaction of Online Transportation Services in Palembang City. This is evidenced by the t value of 3.699 with a significance value of 0.000 less than 0.05 ( $0.000 < 0.05$ ), and the regression coefficient of the Go-ride promotion variable of 0.320.

### LIMITATION AND STUDY FORWARD

Although this research has been attempted optimally, there are still limitations to this research. Limitations in this study include the number of variables involved is still very limited, namely service quality, promotion and customer satisfaction. The data collection method uses a questionnaire, so it is very possible that the data is subjective, it would be better if the interview method was added to the go-ride and customers so that the research results obtained were more complete.



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## ACKNOWLEDGEMENT

### Suggestion.

Based on the research results, discussion and conclusions obtained, the following suggestions can be given.

#### 1. For the Company

- a. Customer satisfaction in using go-ride services is reasonable because of the incessant promotions that have been carried out and supported by the good quality of service provided. Online transportation companies should pay more attention to the quality of services provided to consumers, both in terms of price and in terms of technology. Thus the goal of online transportation to increase income can be achieved.
- b. Sustainability in promotion is needed to remind consumers that this online transportation has an advantage and convenience for the users of this transportation.

#### 2. For Further Researchers

For future researchers who want to research or continue this research, it is advisable to continue or develop this research by looking for other factors such as advertisements, discounts, etc. that can affect customer satisfaction in using online transportation, both Go-ride in the City. Palembang.

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## THE EFFECT OF CAMEL RATIO ON FINANCIAL DISTRESS IN BANKING COMPANY IN INDONESIA

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### Abstract

The purpose of this study is to empirically prove the effect of the CAMEL ratio, namely CAR, NPL, NIM, ROA, ROE, BOPO, LDR on financial distress simultaneously and partially in banking institutions on the Indonesia Stock Exchange. The sample in this study amounted to 16 companies, sampling was done by using purposive sampling method. Hypothesis testing is done by logistic regression analysis and statistical test is done by using partial test and omnibus test of model coefficient. Where before this test is carried out, first it is done by assessing the feasibility of the regression model, testing the fit model and the summary or R<sup>2</sup> model. The results showed that simultaneously the CAR, NPL, NIM, ROA, ROE, BOPO, LDR variables had a significant effect on financial distress in banking companies, then partially the CAR variable had a significant negative effect on company financial distress, NPL and LDR variables partially. There is a significant positive influence on the company's financial distress, the NIM, ROA, ROE and BOPO variables have no effect on banking companies listed on the Indonesia Stock Exchange.

**Keywords:** *Camel, CAR, NPL, NIM, ROA, ROE, BOPO, LDR and financial distress.*

### 1. INTRODUCTION

Increased competition and changing market conditions make producers must carefully overcome and make decisions in matters relating to the company. The effect of company performance can be measured from the results of financial statement analysis. Financial reports issued by companies are one source of information about the company's financial position, performance and changes in financial position which are very useful to support the right decision making. Because the financial statements are a summary of the company's transactions and activities in one period, namely one financial year. Financial statement analysis that provides an overview of the company's performance can be used to project the financial aspects of the company in the future to avoid the company from bankruptcy and can determine policies and considerations for managers, investors and company owners.

Every company is founded with the hope that it will generate profits so that it can survive or grow in the long term and do not experience liquidation. In fact, these assumptions don't always turn out well as expected. Often companies that have been operating for a certain period of time are forced to dissolve or be liquidated due to financial difficulties that have led to bankruptcy. An analysis of the symptoms of bankruptcy must be carried out in order to anticipate future bankruptcies. The way this is done is by analyzing the company's financial ratios with a certain model as in this study. This is because there are many bankruptcy phenomena experienced by companies in Indonesia (Adriana, 2012).

A phenomenon that recently occurred in Indonesia was the delisting of several companies in 2015. Delisting is if a share listed on the Exchange has decreased the criteria so that it does not meet the listing requirements, the shares can be removed from the listing on the Exchange. In 2015 the Indonesia Stock Exchange (IDX) issued 3 companies from the Exchange, namely: PT. Davomas Abadi, Tbk (DAVO), PT. Bank Ekonomi Raharja, Tbk (BAEK), and PT. Unitex, Tbk (UNTX).



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In the DAVO case, the stock exchange imposed a process of forced delisting (Forced Delisting) because of the worrying business continuity and the search for addresses for its own company was not clear. Davo has been listing on the stock exchange since 1994 and was officially issued by the IDX in January 2015. In the recently delisted UNTX case in December 2015 due to operational losses suffered by the company over the last few years which resulted in negative equity on the balance sheet and not again can distribute dividends to shareholders.

The current condition of Indonesia is very prone to financial distress in several national companies. This is the result of the United States' recovery from the crisis, which affected developing countries such as Indonesia which resulted in the depreciation of the rupiah currency from 1 dollar to Rp. 13,000.00. This condition was exacerbated by falling exports and also the price of export commodities which also fell on world commodity markets. The bankruptcy of a company can be seen from the delisting of the company from the IDX. Although delisting does not only mean that the company does not have business continuity according to the IDX, there are also those who prefer to be a closed company (go private) for certain reasons. The following is a list of companies that were delisted and indicated bankruptcy from 2009-2015, either delisted because they did not have business continuity, or who chose to go private.

Financial distress in general is a condition in which a company experiences financial difficulties and is threatened with bankruptcy. Bankruptcy is generally defined as a condition in which a company experiences a failure to run the company's operations so that it cannot generate profits and pay their creditors. According to Ferbianasari (2012) financial distress is a very severe liquidity problem that cannot be solved without a change in the size of the company's operations or structure. This financial distress information can be used as an early warning of bankruptcy so that management can take quick action to prevent problems before the bankruptcy occurs.

To prove that financial reports are useful, research is necessary. One form of research is by using financial ratios to predict company performance such as bankruptcy and financial distress. Financial distress occurs before the bankruptcy of a company. Thus the financial distress model needs to be developed, because by knowing the company's financial distress from an early age, it is hoped that actions can be taken to anticipate conditions that lead to bankruptcy. Financial distress can be measured through financial reports by analyzing financial statements.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1. Grand Theory

Hartono (2005) states that signaling theory is a theory about information provided by a company about its future performance which the market will believe. A good company will provide good information (signal) to the market, so the market will be able to assess the quality of the company. There are 2 good signals according to Meggison (1997) in Hartono (2005): 1. The signal reaches potential investors 2. Not easily imitated by other companies. According to Arifin (2005) in Subalno (2009), signaling theory is developed in economics and finance to take into account the fact that company insiders generally have better and faster information regarding current conditions and company prospects compared to outside investors.

According to Subalno (2009), Signaling theory is an explanation of information asymmetry. The occurrence of information asymmetry is because the management has more information about the company's prospects. To avoid information asymmetry, companies must provide information as a signal to investors. Investors always need symmetrical information as monitoring in investing in a company, so it is very important for companies to provide information on each account (account) in the financial statements which is a signal to be informed to investors and potential investors. Wolk and Tearney (1997) in Rini (2010) stated that the positive thing in signaling theory is that companies



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that provide good information will differentiate them from companies that don't have “good news” by informing the market about their situation. The signal about future performance that is given by a company whose past performance was not good will not be trusted by the market. Symmetrical information is needed as monitoring in investing in a company.

### 2.2. Assessment of bank soundness in camel analysis

According to Bank Indonesia Regulation Article 6 13/1 / PBI / 2011 concerning the Rating System for Commercial Banks, the assessment of bank soundness includes the assessment in the CAMEL analysis as follows:

a. Capital (Capital)

The assessment of the capital factor includes an assessment of the following components: capital adequacy, composition, and projection ( future trend ). In addition, to determine the ability of Bank capital to cover problem assets; the ability of the Bank to maintain the need for additional capital from profits, the Bank's capital plan to support business growth, access to capital sources, and the financial performance of shareholders to increase Bank capital. The assessment is based on the capital owned by one of the banks. One of the assessments is the CAR ( capital adequacy ratio ) method, which is by comparing capital to risk-weighted assets (RWA).

b. Asset Quality (Quality of Assets)

Assessment of asset quality factor includes assessment of the components as follows: the quality of productive assets, concentration of credit risk exposure, development earning assets, and the adequacy of the allowance for uncollectible accounts (PPAP), the adequacy of policies and procedures, the system of the review ( review ) internally , documentation system, and performance of problem earning assets handling.

c. Management (Management)

Assessment of management factors includes an assessment of the following components: general management quality and risk management implementation; obedienceBank to the applicable regulations and commitments to Bank Indonesia and or other parties.

d. Earning

Assessment of the profitability factor includes an assessment of the following components: achievement of return on assets (ROA), return on equity (ROE), net interest margin (NIM), and the level of bank efficiency; development of operating profit, diversification of income, application of accounting principles in recognition of revenues and expenses, and prospects for operating profit.

e. Liquidity

Assessment of the liquidity factor includes an assessment of the following components: liquid asset / liability ratio, potential maturity mismatch , Loan to Deposit Ratio (LDR) conditions, cash flow projections , and funding concentration; adequacy of policies and liquidity management ( assets and liabilities management / ALMA), access to funding sources, and stability of funding.

### 2.3. Usefulness of financial information in financial distress

Kasmir (2014: 28 ) states the usefulness of information if a company experiences financial distress is:

1. Can speed up management action to prevent problems before bankruptcy.
2. Management can take merger or takeover actions so that the company is better able to pay debts and manage the company better.
3. Provide an early warning sign of bankruptcy in the future .



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The bankruptcy information is useful for several parties according to Mamduh M Hanafi (2009: 261) as follows:

1. The lender. Research related to the prediction of financial distress has relevance to lending institutions, both in deciding whether to provide a loan and determining policies to monitor loans that have been given.
2. Investors. Financial distress prediction models can help investors when assessing possible problems for a company in making repayments of principal and interest.
3. Regulators. Regulatory institutions have the responsibility to oversee the ability to pay debts and stabilize individual companies. This leads to the need for an applicable model to determine the ability of companies to pay debts and assess the stability of the company.
4. Government. Prediction of financial distress is also important for government and antitrust regulation .
5. Auditor. Financial distress prediction models can be a useful tool for auditors in making a company's going-concern assessment .
6. Management. When the company went bankrupt, the company will bear the direct costs ( fees of accountants and lawyers) and indirect costs (kerugan forced sale or loss as a result of a court decision). So that with the financial distress prediction model, it is expected that the company can avoid bankruptcy and automatically avoid direct and indirect costs of bankruptcy.

## 2.4. Hypothesis

Sugiyono (2011: 64) defines the hypothesis as follows: "Hypothesis is a temporary answer to the formulation of research problems , where the formulation of research problems has been stated in the form of a question sentence". Based on the formulation of the problem , theoretical studies and previous research reviews that have been stated at the beginning, the hypothesis of this study is as follows:

- H1= CAR, NPL, NIM, ROA, ROE, BOPO, LDR have an effect on the financial distress of banking institutions on the Indonesia Stock Exchange.
- H2= CAR affects the financial distress of banking institutions on the Indonesia Stock Exchange.
- H3= NPL effect on the financial distress of the institution of banking in Indonesia Stock Exchange.
- H4= NIM impact on the financial distress of the institution of banking in Indonesia Stock Exchange.
- H5= ROA effect on the financial distress of banking institutions in the Stock Exchange Indonesia .
- H6= ROE influence on the financial distress of banking institutions in the Stock Exchange Indonesia .
- H7 = BOPO has an effect on the financial distress of banking institutions on the Indonesia Stock Exchange .
- H8 = LDR effect on the financial distress of banking institutions in the Stock Exchange Indonesia

## 3. RESEARCH METHODOLOGY

The research design used associative research, where research was conducted to determine the influence and relationship between the independent variables ( Capital Adequacy Ratio (CAR), Non-Performing Loan (NPL), Net Interest Margin (NIM), Loan To Deposit Ratio (LDR), Return On Assets (ROA), Return On Equity (ROE), operating expenses operating income (BOPO) to the dependent variable ( financial distress)



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In this study, the authors use the technique of documentation, namely by recording or documenting the data contained in the financial statements of the banking corporation in [www.idx.co.id](http://www.idx.co.id).

The number of companies that were sampled was 16 companies with 5 years of research or from 2015-2019, so the total number or  $n = 16 \times 5 = 80$  observations. The dependent variable (Y), namely: financial distress. The independent variable (X) consists of: CAR, NPL, NIM, ROA, ROE, BOPO, LDR.

All research data that has been collected for processing will then be analyzed to obtain answers to problems that arise in this study. In analyzing the data, researchers used the SPSS version 23 software program.

In this study, a logistic regression model was used because the dependent variable model in the model was binary or dummy, giving a value of 1 for banks experiencing financial distress and a value of 0 for banks that did not experience financial distress.

### 4. RESULTS AND DISCUSSIONS

Based on the results of the research, it shows that there are three variables that were significant at  $\alpha = 5\%$ , namely CAR, NPL, and LDR. Hypothesis testing to determine the effect of CAR, NPL, NIM, ROA, ROE, and LDR against financial distress banks in Indonesia can be described as follows:

- 1. Effect of CAR, NPL, NIM, BOPO, ROA, ROE and LDR on Financial Distress.**  
The results of the omnibus test showed that the chi square value was 44,102 with a significance of 0,000. With a significance value smaller than 0.05, it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted, that the financial ratios of CAR, NPL, NIM, BOPO, ROA, ROE and LDR have a joint influence on financial distress.
- 2. The Effect of CAR on Financial Distress**  
The test results with logistic regression showed that CAR has a significance level of 0.032 which is smaller than  $\alpha = 5\%$  and a coefficient of -0.395, which means that CAR has a significant negative effect on bank financial distress, the higher the CAR value, the lower the occurrence of financial distress.
- 3. The Effect of NPL on Financial Distress**  
The logistic regression test results showed that the NPL variable has a significance level of 0.046 which is smaller than  $\alpha = 5\%$  and the regression coefficient shows a positive relationship of 1.358, which means that NPL has a significant positive effect on bank financial distress, the higher the NPL ratio the higher also the credit risk borne by the bank or financial distress occurs.
- 4. The Effect of NIM on Financial Distress**  
The test results logistic regression, namely the significance value of 0.350 more than  $\alpha = 5\%$  and the regression coefficient -0.351, which means NIM is not an influence on the financial distress.
- 5. The Effect of ROA on Financial Distress**  
The ROA variable is used to measure the ability of bank management in obtaining overall profits. The test results of logistic regression showed that ROA coefficient 2,552 and significance of 0.231 is greater than 0.05. The meaning ROA is not an influence on the financial distress.
- 6. The Effect of ROE on Financial Distress**  
Output regression showed ROE has a beta coefficient -0.181 and a significance value of 0.371 more substantial than 0.05, which means that ROE has no effect on the financial distress.



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### 7. The Effect of BOPO on Financial Distress

BOPO variables used to measure the performance of the bank's management to be more efficient in menggunakan resource yang ada yang ada di perusahaan (Riyadi, 2009). The test results of logistic regression showed that the variables ROA coefficient 0.183 and the significance of 0.238 is more substantial than  $\alpha = 5\%$ , which means BOPO no effect on the financial distress that indicated.

### 8. The Effect of LDR on Financial Distress

The test results of logistic regression showed that the variables LDR has no incidence of significance of 0.10 much smaller than  $\alpha = 5\%$ , while koefisien regression menunjukkan positive relationship 0.208, which means LDR influence positively significant to the financial distress of the bank, the higher the ratio LDR

## 5. CONCLUSION

The conclusions from the results of the analysis in this study using the logistic regression test are as follows:

1. There is an effect of CAR NPL NIM ROA ROE BOPO LDR on financial distress in banking institutions in Indonesia for the period 2015-2019
2. There is a negative effect of CAR on financial distress in banking institutions in Indonesia for the period 2015-2019
3. There is a positive effect of NPL on financial distress in banking institutions in Indonesia for the period 2015-2019
4. There is no effect of NIM on financial distress in banking institutions in Indonesia for the period 2015-2019
5. There is no effect of ROA on financial distress in banking institutions in Indonesia for the period 2015-2019
6. There is no effect of ROE on financial distress in banking institutions in Indonesia for the period 2015-2019
7. There is no effect of BOPO on financial distress in banking institutions in Indonesia for the period 2015-2019
8. There is a positive effect of LDR on financial distress in banking institutions in Indonesia for the period 2015-2019

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## COVID-19: THE INFLUENCE AND GOVERNMENT POLICY ON INDONESIAN CAPITAL MARKET BY INDUSTRY

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### Abstract

**Purpose:** This study aims to find the impact of the spread of COVID-19 on the Indonesian capital market's reaction based on the type of industry. This study also aims to determine the difference in government policies, namely large-scale social restrictions (PSBB) in each industry during two implementations.

**Research Methodology:** In this study, the research model used to estimate the expected return value is the Market Model as a statistical model. The method used in this research is the event study methodology. The events observed were the first cases of corona's spread in Indonesia, the first and second large-scale social restrictions (PSBB) in Jakarta.

**Results:** This study indicates a significant difference in market reactions between before and after the spread of the first case of the COVID-19 virus in Indonesia. The sectors affected by this event are agriculture, basic industry and chemicals, consumer goods industry, finance, and mining. This study also proves that there are significant differences when the first and second large-scale social restrictions are applied, especially in the Basic Industry and Chemicals, Finance, and Infrastructure, Utilities and Transportation sectors.

**Limitations:** The data used in this study is the stock price data for the industrial sector in Indonesia, excluding the trading volume activity.

**Contribution:** For stockholders, this research can be used as additional literature in making investment decisions related to the spread of the COVID-19 virus. For academics, this research can be used as a reference for observing stock price movements on the Indonesia Stock Exchange

**Keywords:** *COVID-19, large-scale social restrictions, the Indonesian stock market, abnormal returns, event study analysis, and the Industrial Sector in Indonesia*

## 1. INTRODUCTION

Susilo et al (2020) stated that COVID-19 is a new disease that has become a pandemic with the relatively fast transmission. Following the statement of the World Health Organization (WHO) on March 12, 2020, which announced COVID-19 as a pandemic. The impact of COVID-19 not only affects changes in the social order of life but also reduces the performance of the world economy, including Indonesia. Hanoatubun (2020) stated that the spread of the Coronavirus had had an impact on the Indonesian economy. The decline in Indonesia's economic performance has occurred since the first quarter of 2020, which is reflected in the rate of economic growth which only reached 2.97% and again decreased significantly in the second quarter of 2020 which grew at minus 5.32% (BPS, 2020).

Quoted from the official website of the Indonesian government, two cases of the spread of COVID-19 in Indonesia were reported on March 2, 2020. The Indonesian government itself has set various policies to prevent the spread of the coronavirus, one of which is by implementing Large-Scale Social Restrictions (PSBB) in various cities. PSBB as regulated in the Government Regulation of the Republic of Indonesia Number 21 of 2020 concerning Large-Scale Social Restrictions includes:

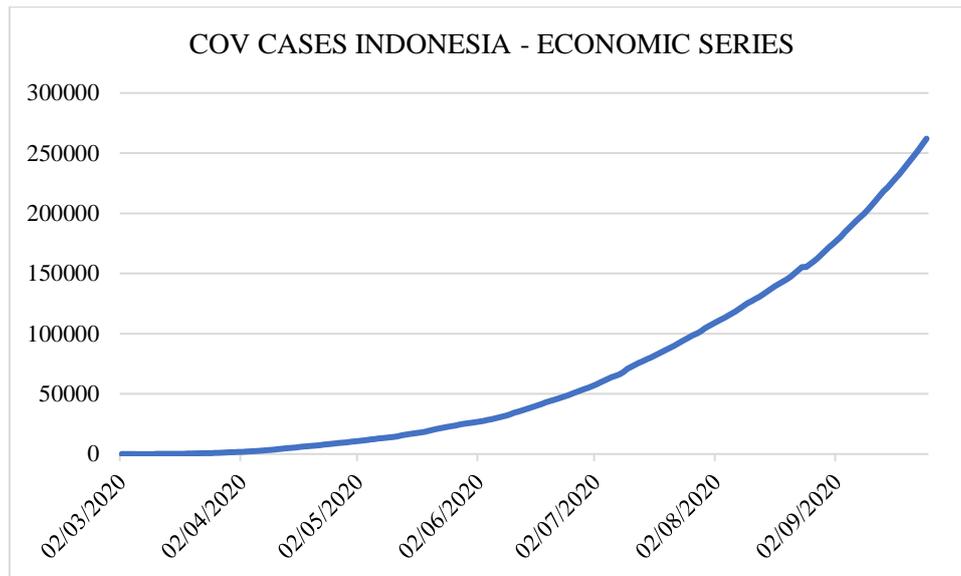
- a) School and work vacations;
- b) Restriction of religious activities; and/or;
- c) Restrictions on activities in public places or facilities.



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The implementation of PSBB in several regions in Indonesia has affected the company's operations due to restrictions on activities and the imposition of physical distancing. PSBB is carried out for two weeks or 14 days. Referring to the Regulation of the Governor of DKI Jakarta Number 33 Year 2020 concerning PSBB in Handling Covid-19, PSBB was first implemented in Jakarta on April 10, 2020. Then due to the increase in COVID-19 cases, PSBB was re-enforced in the second phase on September 14, 2020, based on the Regulation Governor of DKI Jakarta Number 88 Year 2020.

Data on the increase in the number of cases of the spread of COVID-19 from March 2, 2020, to September 25, 2020, in Indonesia, is in the chart below.



**Figure 1. COVID-19 Cases in Indonesia (source: thomson reuters eikon, 2020)**

In the conditions of the COVID-19 pandemic where there is a significant increase as it is today, economic resilience is an expected issue. Economic resilience is defined as the ability of an entity or system to maintain function (for example, continuity) when a shock occurs (Coaffee, 2008). Investors will usually shift their investment to stronger and more stable industrial stocks when bad news occurs (Saputri & Ekaputra, 2020). Investors in making decisions use public information, including macroeconomic and non-macroeconomic factors that occur (Utama & Hapsari, 2012). The case of the spread of COVID-19, which can hinder economic growth is one of the macroeconomic factors of concern in this study. This research wants to see how the impact of the spread of COVID-19 on the reaction of the Indonesian capital market. Previous research has been carried out by (Chen et al., 2007) when the SARS (Severe Acute Respiratory Syndrome) outbreak occurred in Asian countries. Chen et al. (2007) found that the type of industry also determined the market reaction to the publication of the SARS disease outbreak. Wherefrom the results of this study, the tourism industry had the worst prospects due to the SARS outbreak, as evidenced by a decrease in hotel performance and share prices in the capital market. Saputri & Ekaputra (2020) states that changes in the price of equity reflect new information received by the market.

This study tries to determine the impact of the spread of COVID-19 on the reaction of the Indonesian capital market based on the type of industry. How the news of the spread of COVID-19 affects stock price changes is done by looking at the reaction after the announcement of the first case of COVID-19 in Indonesia. This study also aims to determine differences in government policies, namely large-scale social restrictions (PSBB) in each industry for two times of implementation.



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## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *Efficient market*

Efficient market hypothesis (EMH) is a condition in which stock prices reflect all available information (Bodie et al., 2014). Utama & Hapsari (2012) state that information has a very important role in the capital market, where prices are a reflection of all relevant information. The efficient market hypothesis is grouped into three groups, namely:

1. Weak-form hypothesis in which the stock price is assumed to be a reflection of all information contained in historical data regarding the price of the security, such as historical prices and share buying and selling volume. In a market with this hypothesis, investors cannot perform technical analysis to get an abnormal return.
2. Semi strong-form hypothesis where stock prices are assumed to be a reflection of all published information, including financial reports, announcements of dividend distribution, announcements of mergers and acquisitions, government policies that have an impact on stock prices, and others. In a market with this hypothesis, investors cannot perform fundamental analysis to obtain abnormal returns.
3. Strong-form hypothesis where the stock price is assumed to be a reflection of all information related to the company, both published information and private information. In a market with this hypothesis, even though investors cannot get abnormal returns even though they have private information.

### **Market Model**

The market model assumes that the return of a security is influenced by the level of market profit (as indicated by the available market index). The calculation of the expected return with the market model is carried out in two stages, first forming an expectation model with the realization data during the estimation period and then using the expected model to estimate the return in the event period. This expectation model is formed using the OLS (Ordinary Least Square) technique which is formulated as follows:

$$E(R_{it}) = a + b_i R_{mt}$$

Where:

$E(R_{it})$  = the expected return for stock  $i$  on day  $t$

$a$  = The share of security  $i$  return that is not affected by market changes (constant)

$b_i$  = beta coefficient which measures systematic risk as well as shows the sensitivity of changes in stock returns  $i$  due to changes in market returns

$R_{mt}$  = Market portfolio return represented by the composite stock price index (in this case using IDX Composite Indeks)

### **Event Study**

Brown & Warner (1980) stated that the Event study focuses on the specific impact of corporate risk that affects the price of the securities that are affected at the time of the incident. In measuring the impact of an event by estimating the abnormal return on stocks (or groups of shares) when the information on the incident is known (Bodie et al., 2014).

Estimation of abnormal returns can be done by finding the difference between the actual return and the expected return with the following formulation:



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$$AR_{it} = R_{it} - E(R_{it})$$

Where:

$AR_{it}$  = abnormal return for stock  $I$  on day  $t$

$R_{it}$  = actual return for stock  $i$  on day  $t$

$E(R_{it})$  = Expected return for stock  $i$  on day  $t$  using the market model

If an announcement of an event is good news, AR to be positive, indicating that the market believes that the event will increase the firm's value. On the contrary, a negative AR signals bad news and the market believes that the event would decrease the firm's future profitability (Chen et al., 2007).

A good indicator of assessing abnormal returns is to use the cumulative abnormal return measure, which is the sum of all abnormal returns at the time of the event. Cumulative abnormal return (CAR) captures the total movement of specific company stocks in all periods when the market may respond to new information (Bodie, Kane, & Marcus, 2014). This study calculates the average abnormal return (AAR) value in the event period used, then estimates the cumulative average abnormal return with the following formula:

$$CAAR_t = \frac{\sum CAR_{it}}{n}$$

### 3. RESEARCH METHODOLOGY

#### Data

The data used in this study are daily data on stock prices before and after the spread of COVID-19 in Indonesia. The study period was divided into three estimation periods and three event periods. Peterson (1989) uses the 100 days estimation period, so this study also uses the same estimation period. The 100 days estimation period is carried out to limit the existence of other events that may occur and may affect the market reaction, whereby the day used is 100 stock trading days.

This study uses the Indonesian Composite Stock Price Index (IDX), daily data on Indonesian stocks for all industries in Indonesia. List of industrial stocks based on shares listed on the Indonesia Stock Exchange is nine industrial sectors.

**Table 1. List of Industries in Indonesia**

List of Industries in Indonesia
Agriculture
Basic Industry and Chemicals
Consumer Goods Industry
Finance
Infrastructure, Utilities and Transportation
Mining
Miscellaneous Industry
Property, Real Estate and Building Construction
Trade, Service, and Investment

In this study, the selection of company stock samples was carried out using a purposive sampling method, namely companies that were sampled were companies that had certain criteria:



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1. The company was listed on the Indonesia Stock Exchange from 7 October 2019 to 25 September 2020.
2. Companies with available daily data.
3. Companies sampled are grouped based on the type of industry.

The total number of companies sampled in this study were 566 company shares which were then divided into nine sectors based on their industry.

### Research Model

According to Bhagat & Romano (2002), there are two models in determining prices, namely statistical models and economic models. The statistical model is a simple model in determining prices which is not based on a specific economic theory. The economic model derives from a specific economic theory of asset price formation which is considered as placing certain restrictions on the statistical model. In this study, the research model used to estimate the value of the expected return is the Market Model as a statistical model.

### Market Model

This expectation model is formed using the OLS (Ordinary Least Square) technique which is formulated as follows:

$$E(R_{it}) = a + b_i R_{mt}$$

Where the Beta value reflects the sensitivity of the company's stock price due to changes in market prices. The  $a$  and  $b_i$  coefficients were estimated using the regression method.  $R_{mt}$  represents the market shares in the event period which here uses the Composite Stock Price Index (IHSG). IHSG is an index of price movements of all stocks listed on an exchange where this index is calculated from a year defined as the base year.

### Data analysis method

The method used in this research is the event study methodology, which can be used to analyze many interesting issues, both law and economics or in general public policy analysis (Bhagat & Romano, 2002).

The research steps carried out are as follows:

1. Determine the events to be analyzed. In this case, three incidents were analyzed, namely the first case of the spread of COVID-19 in Indonesia and the government policy in the form of large-scale social restrictions (PSBB) in two stages in Jakarta.
2. Determine the time of an event as day 0 (zero), namely the day it occurred. The first event that saw the effect of the spread of COVID-19 was taken on March 2, 2020. The second event was the implementation of the PSBB in Jakarta on April 10, 2020, and the third event was the implementation of the second PSBB in Jakarta on September 14, 2020
3. Determine the event period (event windows) and the estimated period which aims to capture all the effects that affect the stock price which is the period to estimate the expected return. The period used for the spread of COVID-19 uses five days (-5, +5) five days consisting of 5 days before the incident and five days after the event (five days of stock trading), the span of five days is used to limit other events that may affect the share price. Then for the second and third events, the policy for the implementation of the PSBB uses 14 days. This is because the PSBB is enforced for two weeks. However, after further investigation, there were only nine days of stock trading after 14 days of implementation.



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The estimation period used refers to research (Peterson, 1989) which limits the estimation period to reduce the influence of other events that may occur. The estimated period in this study is 100 stock trading days.

### First Case Incidence of the Spread of COVID-19 in Indonesia (2 March 2020) for five days

Estimation Window		Event Window	
$T_{-105}$	$T_{-5}$	0	$T_{+5}$
07/10/2019	24/02/2020	02/03/2020	09/03/2020

### The event of the first PSBB enforcement (10 April 2020) for 14 days for nine days of stock trading

Estimation Window		Event Window	
$T_{-109}$	$T_{-9}$	0	$T_{+9}$
11/11/2019	30/03/2020	10/04/2020	23/04/2020

### The second PSBB enforcement event (14 September 2020) for 14 days for nine days of stock trading

Estimation Window		Event Window	
$T_{-109}$	$T_{-9}$	0	$T_{+9}$
14/04/2019	01/09/2020	14/09/2020	25/09/2020

4. Calculate the actual return value (actual return) for each period. The calculation of actual return uses the formula  $[(P_1 - P_0) / P_0]$  where  $P_1$  is the closing price of shares on day t. Then group them based on the order of the shares with their respective market capitalization values.
5. calculating the expected return with two predetermined pricing methods with the length of the period being 100 days before the event period. This is done to ensure that the expected return on shares does not contain the impact of previous events.
6. Calculating abnormal return by subtracting the actual value of return with the value of the expected return.
7. Calculates the Average Abnormal Return (AAR) by averaging all the abnormal return values of all samples and dividing by the number of samples used.
8. Calculate the Cumulative Average abnormal return (CAAR) to get a clearer picture of the movement of shares during the event period.
9. Performed hypothesis testing with paired sample t-test.
10. Analyze and interpret research results.

These steps are taken for all days of estimation and for all samples including groups of stocks that have been differentiated by industry type.

## 4. RESULTS AND DISCUSSIONS

This study takes the event of the spread of COVID-19 in Indonesia and the influence of policies taken by the Indonesian government. In this case, three events were analyzed, namely the first case of the spread of COVID-19 in Indonesia which was reported on March 2, 2020, Government policy in the form of large-scale social restrictions (PSBB) for two stages in Jakarta where the first stage took effect on April 10, 2020 and the second phase comes into effect on September 14, 2020. To determine the impact of the spread of COVID-19 on the reaction of the Indonesian capital market based on the

type of industry and to find out differences in government policies, namely large-scale social restrictions (PSBB) in each industry during the two times of implementation, tests were carried out with the event study methodology.

The indicator used in assessing abnormal returns in this study uses the cumulative average abnormal return (CAAR) measure to capture the total average movement of specific company stocks in all periods. The results of AAR and CAAR calculations for the first case of the spread of COVID-19 for five days before and five days after the incident for each industrial sector in Indonesia are shown in table 2 and table 3.

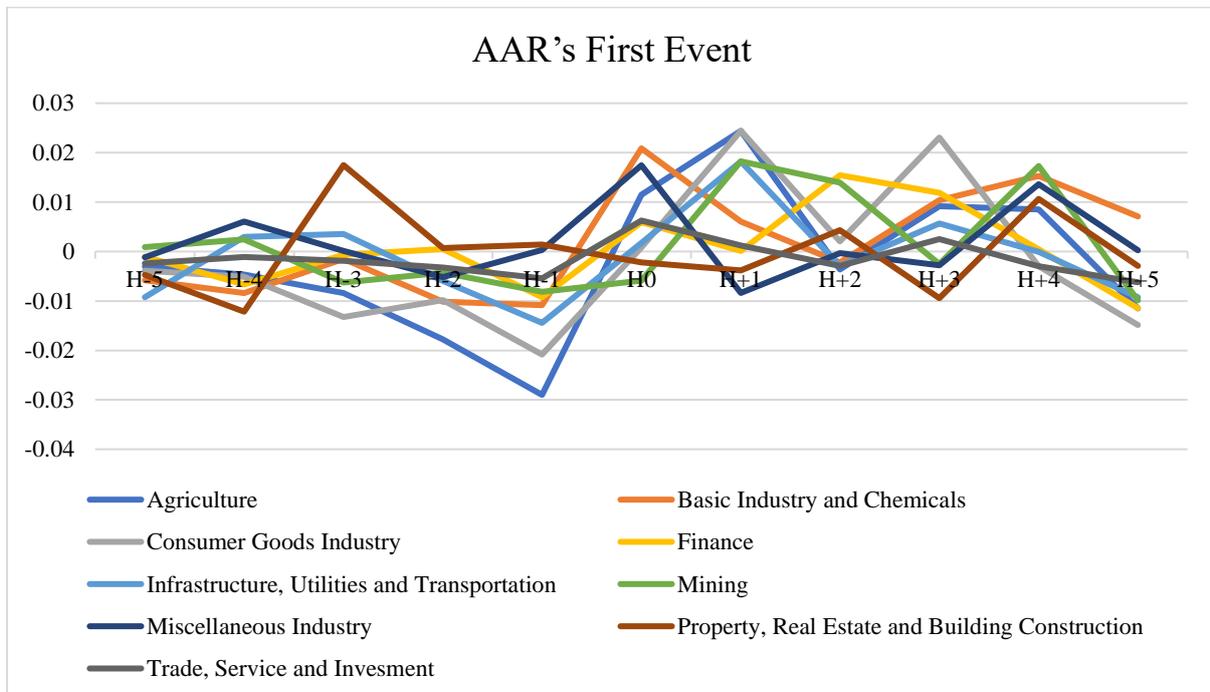
**Table 2. AAR's first event**

AAR	H-5	H-4	H-3	H-2	H-1	H0	H+1	H+2	H+3	H+4	H+5
Agriculture	-0,0030488	-0,0046368	-0,0083818	-0,0177513	-0,0289996	0,01150471	0,02439665	-0,0036445	0,00918901	0,00854414	-0,0115315
Basic Industry and Chemicals	-0,0057981	-0,0084177	-0,001472	-0,010154	-0,0108488	0,02085667	0,00603997	-0,0022352	0,01039406	0,01527408	0,00709622
Consumer Goods Industry	-0,0038578	-0,0050924	-0,0132734	-0,0098033	-0,0208415	0,00082676	0,02441256	0,00206505	0,02304892	-0,0029524	-0,0148466
Finance	-0,0010741	-0,0066673	-0,000636	0,00052704	-0,0092643	0,00592751	0,00011499	0,01542498	0,01186223	0,00045446	-0,0114633
Infrastructure, Utilities and Transportation	-0,0092567	0,00297862	0,00356173	-0,0059433	-0,0144362	0,00170916	0,01819782	-0,0029007	0,00565467	-9,829E-05	-0,0092721
Mining	0,00087361	0,00244173	-0,0062998	-0,004274	-0,0081584	-0,0058941	0,01823921	0,0139243	-0,002524	0,01731075	-0,0098866
Miscellaneous Industry	-0,0011906	0,00602927	0,00013474	-0,0051821	0,00029355	0,0174404	-0,0083782	-0,0003626	-0,0028174	0,01364017	0,00027354
Property, Real Estate and Building Construction	-0,0047564	-0,0121692	0,01747959	0,00072543	0,00143571	-0,0022371	-0,0038461	0,00429784	-0,0094586	0,01065823	-0,002915
Trade, Service and Investment	-0,0023943	-0,0010857	-0,0018562	-0,0032469	-0,0054323	0,00626211	0,00119139	-0,0029269	0,00250792	-0,0029554	-0,0062218

**Table 3. CAAR's first event**

CAAR	H-5	H-4	H-3	H-2	H-1	H0	H+1	H+2	H+3	H+4	H+5
Agriculture	-0,0030488	-0,0076855	-0,0160673	-0,0338186	-0,0628182	-0,0513135	-0,0269168	-0,0305614	-0,0213723	-0,0128282	-0,0243597
Basic Industry and Chemicals	-0,0057981	-0,0142158	-0,0156877	-0,0258418	-0,0366905	-0,0158339	-0,0097939	-0,0120291	-0,001635	0,01363906	0,02073528
Consumer Goods Industry	-0,0038578	-0,0089501	-0,0222235	-0,0320268	-0,0528684	-0,0520416	-0,027629	-0,025564	-0,0025151	-0,0054675	-0,0203141
Finance	-0,0010741	-0,0077415	-0,0083775	-0,0078504	-0,0171147	-0,0111872	-0,0110722	0,00435275	0,01621498	0,01666944	0,00520619
Infrastructure, Utilities and Transportation	-0,0092567	-0,0062781	-0,0027163	-0,0086596	-0,0230959	-0,0213867	-0,0031889	-0,0060896	-0,0004349	-0,0005332	-0,0098052
Mining	0,00087361	0,00331534	-0,0029845	-0,0072584	-0,0154169	-0,021311	-0,0030718	0,01085251	0,00832848	0,02563923	0,01575262
Miscellaneous Industry	-0,0011906	0,00483862	0,00497336	-0,0002088	8,4794E-05	0,01752519	0,00914697	0,00878435	0,00596697	0,01960714	0,01988068
Property, Real Estate and Building Construction	-0,0047564	-0,0169255	0,00055405	0,00127947	0,00271518	0,00047807	-0,003368	0,00092981	-0,0085288	0,0021294	-0,0007856
Trade, Service and Investment	-0,0023943	-0,00348	-0,0053362	-0,0085831	-0,0140154	-0,0077533	-0,0065619	-0,0094888	-0,0069809	-0,0099362	-0,016158

The table above shows the abnormal return for each industry. To see the average abnormal return movement is displayed in graph two below.



**Figure 2. AAR's First Event**



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Then, after calculating the AAR to test whether there is an influence on the incidence of the spread of COVID-19 in Indonesia, the average difference test shown in table 4 is carried out.

**Table 4. Summary First Event: paired sample t test**

INDUSTRY SECTOR	Mean (before)	Mean (after)	t hitung	Sign. (2-tailed)	conclusion
Agriculture	-0,012563637	0,005390762	-3,794613994	0,019192436	Signifikan**
Basic Industry and Chemicals	-0,007338106	0,007313829	-4,475244166	0,011030096	Signifikan**
Consumer Goods Industry	-0,01057367	0,006345492	-2,640182753	0,05756937	signifikan***
Finance	-0,003422945	0,003278682	-1,452128958	0,220108182	Tidak Signifikan
Infrastructure, Utilities and Transportation	-0,00461917	0,002316289	-1,252710768	0,278549485	Tidak Signifikan
Mining	-0,003083378	0,007412724	-2,454542342	0,070101715	signifikan***
Miscellaneous Industry	1,69588E-05	0,000471097	-0,09526761	0,928684071	Tidak signifikan
Property, Real Estate and Building Construction	0,000543037	-0,000252738	0,106717791	0,920150993	Tidak signifikan
Trade, Service and Investment	-0,002803081	-0,001680946	-0,92075042	0,409285983	Tidak Signifikan

The results of the average difference between the days before the first case of the spread of COVID-19 in Indonesia and after the incident show significant differences for several industries. Industries that have significant differences are Agriculture, Basic Industry and Chemicals, Consumer Goods Industry, and Mining, which can be concluded that the spread of COVID-19 has a significant effect on stock prices in the industry.

The next step is to see the difference in the influence of government policies in the form of PSBB on stock price movements in Indonesia for nine industrial sectors. Table 5 shows the AAR and CAAR for the two stages of the implementation of the PSBB in Jakarta.

**Table 5. AAR PSBB Event**

Sector	PSBB 1		PSBB 2	
	AAR	CAAR	AAR	CAAR
Agriculture	0,00091	0,02639	0,00188	0,01149
Basic Industry and Chemicals	0,00142	0,04088	-0,00199	-0,03875
Consumer Goods Industry	-0,00007	0,03139	0,01066	-0,01611
Finance	0,00065	0,03441	-0,00432	-0,03409
Infrastructure, Utilities and Transportation	0,00161	0,04527	0,00168	-0,01700
Mining	0,00136	0,05756	0,00185	-0,01288
Miscellaneous Industry	0,00124	0,01641	0,00536	-0,01801
Property, Real Estate and Building Construction	0,00243	0,00581	0,01123	0,03240
Trade, Service and Investment	0,00153	0,02581	0,00115	-0,00832

From the table above, it can be seen that there are a decrease and an increase in the abnormal return value depending on the industry. To see which sectors have undergone changes with the impact of the implementation of the PSBB, the data is presented in the following average difference test:



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Tabel 6. paired sample t test (PSBB Event)

INDUSTRY SECTOR	Mean (before)	Mean (after)	t hitung	Sign. (2-tailed)	conclusion
Agriculture	-0,00096	-0,00011	-0,23036	0,82041	Tidak Signifikan
Basic Industry and Chemicals	-0,00235	0,00389	-2,64637	0,01641	Signifikan**
Consumer Goods Industry	-0,00171	0,00275	-1,58550	0,13026	Tidak Signifikan
Finance	-0,00280	0,00158	-3,22551	0,00469	Signifikan*
Infrastructure, Utilities and Transportation	-0,00027	0,00342	-1,99733	0,06113	Signifikan***
Mining	0,00008	0,00332	-0,90029	0,37985	Tidak Signifikan
Miscellaneous Industry	-0,00137	0,00055	-1,16482	0,25930	Tidak Signifikan
Property, Real Estate and Building Construction	0,00249	-0,00038	1,25627	0,22508	Tidak Signifikan
Trade, Service and Investment	-0,00044	0,00105	-1,28838	0,21393	Tidak Signifikan

The results of the average difference test show that the implementation of the second PSBB has a different effect from the implementation of the first PSBB for the Basic Industry and Chemicals, Finance, Infrastructure, Utilities and Transportation Sectors. A contagion effect prevails in case that unpredictability concerning some stocks is transferred to other stocks in the same or related industry (Chen et al., 2007).

## 5. CONCLUSION

This study indicates a significant difference in market reactions between before and after the spread of the first case of the COVID-19 virus in Indonesia. The sectors affected by this event are agriculture, basic industry and chemicals, consumer goods industry, finance, and mining. This study also proves that there are significant differences when the first and second large-scale social restrictions are applied, especially in the Basic Industry and Chemicals, Finance, and Infrastructure, Utilities and Transportation sectors

## LIMITATION AND STUDY FORWARD

The data used in this study is data on stock prices in the industrial sector in Indonesia, excluding trading volume activity. Further research can be done by testing trading volume activity and stock price volatility to strengthen the research results.

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## Concept To Market

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### Abstract

**Purpose:** The purpose of this article is to discuss how market research and practice may benefit from a microfoundation perspective and molecular thinking that are intertwined from the previous researchers.

**Research Methodology:** The study utilizes a theoretical review of the extant literature.

**Results:** This study found that theoretical study of the link between market knowledge, Customer Engagement, Employee Engagement, Supply Chain Engagement, and Business Performance have produced a new concept as a response to the disparity in the role of marketing functions.

**Limitations:** This study had restrictiveness in the body of this article, there is still a debate between views and theories on the revitalization of Resource Base View (RBV) and Resource-Based Theory (RBT) Practice-Based View (PBV), and Organizational Engagement in the whole aspects.

**Contribution:** The originality of this paper lies in the theoretical view of addressing a volatile market.

**Keywords:** *dynamic capability, market knowledge, multi actor, business performance*

## 1. INTRODUCTION

Sissors (1966) statement states that markets are people and the answer is: those segments in which most sales have been concentrated. So what's the definition of the market?, Rosenbaum (2010) argues that whatever definition of a market we choose, it is neither true nor false, only appropriate for the purpose at hand and as indicated in the preceding section, a definition of the market may have various purposes. So defining a market is essentially a normative enterprise that has to be judged by its usefulness for the chosen purpose rather than its truth or falsity. Therefore, what needs to be addressed is how does the market change? (Giesler & Fischer, 2017), what must be done to keep exist in the market? these questions do not mean they do not have an answer. Our review, provides solutions to the company's strategy in dealing with a changing market. Accurate market knowledge in two different markets (offline and online) will answer that question. However, to continue the existance in competitive competition, it is necessary to engage multi-actors (customers, employees and supply chains) to dominate markets that can improve business performance. Based on this, the purpose of this study is to provide a new perspective on the concept of marketing in a volatile market.

## 2. LITERATURE REVIEW

### 1. Market Knowledge

The essence of market knowledge is the mechanism that enables, supports, facilitates and mobilizes, shares or exchanges information and knowledge between providers and users. This knowledge about customers and competitors (Marinova (2004). Basically market knowledge refers to the magnitude of



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changes in knowledge in decision making between two circumstances at one time which separates the effect of the accuracy of knowledge from the magnitude of changes in market knowledge (Simard, 2006). The main focus of the market is to connect the two things to formulate solutions of problems that occur with the right people, and this is a transactional approach that assumes knowledge-based products or services are available for distribution to someone who wants to use them (D Tapscott & Williams, 2008). In this perspective, social networking providers and users have a goal to succeed in the digital market (Don Tapscott, Ticoll, & Lowy, 2000). Rapid changes in the competitive landscape and global competition also require companies to develop dynamic capabilities by creating, and combining resources that are difficult to emulate globally as competitive advantages (Griffit & Harve, 2001).

Empirically Hou & Chien (2010) supports the relationship between dynamic capabilities, market knowledge management competencies and business performance which has an effect to mediate management competence in market knowledge related to dynamic capabilities and financial performance. In online markets, utilizing market knowledge can motivate sellers to improve their performance with intermediaries (Jooryang, Jai-Yeol, & Kil-Soo (2010). However, trust enhancement does not always improve the quality of knowledge to continue learning (Zhang & Sundaresan, 2010). The findings of Zhou & Li (2012) show that the effect of the depth of knowledge depends on the acquisition of knowledge, and sharing knowledge in the opposite way will have an adverse effect on product innovation (Bao, Sheng, & Zhou, 2012). Having market knowledge and integrating it into technology can lead to further business opportunities and increase the absorption of employee market knowledge (Siegel & Renko, 2012; Jiménez-Castillo & Sánchez-Pérez, 2013; Musteen, Datta, & Butts, 2014; Åkerman, 2015). Then it can be postulated that market knowledge can improve the company's performance and market adaptation.

### 2. Multi Actor Engagement

#### a. Customer Engagement

Marketing in the network world in the COVID-19 era took a leading role, the enactment of lockdown and social distancing in all human activities raises and enhances the role of the internet as a platform that creates dependence on customer needs. Although in the view of researchers from some literature about customer engagement still has differences in customer contributions to the company (Bowden, 2009; Doorn van et al., 2010; Verhoef et al., 2010). However, it is recognized that customer engagement is very important for the company. Customer engagement can help companies attract other customers who are not interested. The traditional marketing channels that were paralyzed in the pandemic era had a strong influence on customer engagement. The role of social media greatly influences activities that create chain reactions of various types of customers and have an effect on companies' profits (Trusov, Bucklin, & Pauwels, 2009; Hogan, Lemon, & Libai, 2003; Lee & Grewal, 2004). Much earlier, Kumar et al., (2010) have revealed that to measure customer value is not enough based on the number of transactions, it is very important to appreciate the appearance of new customers to create attachments and avoid the over-value unappreciate evaluations (Barth, 2007). The globalization of technology with sophisticated customers certainly has excessive demands. With an unhealthy health condition and a bad competitive climate and a financial crisis that has struck almost every country in the world is one of the few shifts in the business environment. The speed of information, responsiveness, management innovation and opportunities created by diverse choices, will certainly cause new problems for companies to retain (Carter, 2008). White, Harrison, & Turner (2010) show that the introduction of internet-based services is positively correlated with accelerated adoption behavior. Customers who use the internet for company service innovation are twice as likely to adopt the company's new product offerings during the beginning of the first year.

Literature in the marketing domain and cognitive psychology has provided a way to process varies information from customers according to the level of customer experience with product services



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offered by the company (J. Bowden, 2009). Customer acquisition, development and retention are customer life cycles (Bijmolt et al., 2010). Brodie, Ilic, Juric, & Hollebeek (2011) found customer engagement can increase customer loyalty, satisfaction, empowerment, connections, emotional ties, trust and commitment. Although the results of an exploratory study and focus group conducted by Javornik & Mandelli (2012) found that customers are not willing to bond with a brand if the customer is not offered to a unique value proposition. However, customer behavior is now increasingly active in the process of consumption, and this has caused excitement (Gummerus et al, 2012).. Psychological effects from customers can stimulate customer spending (Cheung, Shen, Lee, & Chan, 2015). This is no longer about trust, personal issues, age and gender but self-interaction that influences customer behavior as stated by Bitter, Kräuter, & Breitenecker (2014).

Digital space forces companies to engage with customers, explore customer roles, increase trust. The effect of WOM on brands through the social media community, can undermine the brand that has been consumed by community members. Although this opinion does not agree with Islam & Rahman,(2016b) and Ángeles Oviedo-García, Muñoz-Expósito, Castellanos-Verdugo, & Sancho-Mejías (2014), as well as So, King, & Sparks (2012) which states that academic research has no clear conceptualization and the absence of strict measurements of the customer engagement constructs. However, it should be noted that customer attachment arises from an emotional connection to the brand that is cognitively and these actions effectively change behavior outside the buying situation (Hollebeek, 2013; Verhagen, Swen, Feldberg, & Merikivi, 2015). Customer commitment to spreading positive word-of-mouth can lead to manifestations of engagement and certainly can improve company performance to encourage non-transactional behavior between customers (Cambra-Fierro, Melero-Polo, & Vázquez-Carrasco, 2013). A global economic order that has shifted from its axis and with a high level of competitive pressure, companies must be able to anticipate by investing more time and resources to continue innovating (Kumar et al., 2010; Doorn van et al., 2010). Thus the company must change its approach to customer portfolio management and start investing with an analysis model on non-transactional behavior towards business performance (J. Cambra-Fierro, Melero-Polo, & Javier Sese, 2015). Especially in the current situation, application users on smartphones feel the better values of emotional (Dovaliene, Masiulyte, & Piligrimiene, 2015).

The concept offered by Wirtz J., Ambtman A.D, Bloemer J. (2013) on four dimensions that are; brand orientation, internet use, funding and governance as well as three antecedents, namely; related to brands, social and functional which was then continued by Kandampully, Jay, & Bilgihan (2015), emphasizing the importance of engaging customers to encourage customer attachment to brand equity, a sense of togetherness and financial incentives (Hammedi, Jay, Zhang, & Bouquiaux, 2015). Stone & Woodcock (2013) have explained that the use of social media effectively supports customer management strategies in marketing that require an approach to social intelligence in four customer management strategies that are; win, carry on, development and cost. This shows that the social approach does not only depend on technology but there are elements of its business basis. Therefore, the strategy, structure and organizational culture of the company need to be re-innovated due to the effect of the inharmony between individual competencies and organizational commitment thus inhibiting the customer engagement successfully (Chathoth et al, 2014; Guesalaga, 2015). Because it is still vague, marketing and service development research that highlights the gaps between companies and customers who has lack understanding about how customers engage with respect for shared creation, it would be nice, suggestions from the findings of Jaakkola & Alexander (2014) on the wheel of customer engagement behavior with four types of behavior customer engagement is followed up on further empirical research. Although this has been done by So et al., (2014), it does not represent all the rudder offered, as well as Chathoth, Ungson, Harrington, & Chan (2016) who find modalities in service transactions based on the changes of attitude, technology is the one that allow and logic or ideology is what supports change. So far, it can be seen that researchers have sought to understand empirically engagement that goes beyond the purchase and level of interaction of the prospective and customer connected with the company's brand by involving others in the social



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networks created by the brand, offers and individual activities involved from customers and customer candidates.

The discussion presented by Vivek, Beatty, Dalela, & Morgan (2014) explains that engagement can be seen as a way to create customer interaction and participation. Customer engagement is an interactive, mutual relationship experienced by customers with focal agents / objects that are meaningful and maintained in a network of social relationships. There are three dimensions of customer engagement offered, they are; attention awareness, enthusiastic participation and social relations that support participation, meaningfulness, connectedness and temporality relative to customer relations with the brand. The discussion was strengthened by the findings of Islam & Rahman (2016) which showed that brand image significantly affected customer engagement and customer engagement loyalty also affected customers. Need to be considered in insight; like the opinion of Maslowska, Malthouse, & Collinger (2016) which defines customer engagement is to change the dynamics of decisions historically informed by marketing, even though the steering of customer engagement outside of purchase is very important for customer satisfaction, loyalty and lifetime value. Thus it can be postulated that understanding personality traits and knowing the value which customers received by online method can increase customer attachment

### **b. Employee Engagement**

Kahn (1990) argues, there are three psychological conditions associated with attachment at work, they are; meaningfulness, safety and availability. In other words, workers are more attached to the workplace in psychological situations that offer more meaningfulness, psychological security and psychologically considered. Employee engagement is the responsibility of management (Piersol, 2007). Management must create a strong open communication system and provide the tools needed to get the job done. Employee empowerment gives the organization an agility and competitive advantage (Christensen Hughes & Rog, 2008). In the work process, Avery, McKay, & Wilson (2007) revealed that satisfaction with coworkers' performance affects engagement and the findings of Bhatnagar (2007) revealed that the low load factor showed a low attachment result at the beginning of a 16-month career with the organization. Whereas the high load factor at the work transition stage shows a high level of attachment with the possibility of high loyalty, but has limited time. Both factors have a high friction indication and identification for the third factor which is different from organizational culture, career planning with incentives and organizational support.

While in practice, to achieve the goals of engagement McBain (2007) states the organization must empower managers to communicate with people on his team and organizational recognition is needed to understand employee engagement and commitment from various groups, types of roles, different generations and the needs and expectations that are also different. (Wildermuth & Pauken, 2008a; Simpson, 2009). Therefore, it is very important to recognize the diversity of ages among employees (James, Mckechnie, & Swanberg, 2010). Wildermuth & Pauken (2008b) added; logically, attachment will not be affected by training programs, increasing engagement is the proposition in the long period. The success barometer of an employee engagement in an organization is the result of the team's attachment which is under a manager (Pugh & Dietz, 2008; Papalexandris & Galanaki, 2009). Companies will be difficult to imitate by competitors, if the engagement of employees has been owned by the company and that is the key to the company's competitive advantage (Macey & Schneider, 2008; Sundaray, 2011). In the current difficult situation, many companies lay off their employees. This happens because the company only looks at the practice side and does not ensure the philosophical side (Devi, 2009) and managers should be able to retain their employees. The bounded labor is a sign of a healthy organization, whatever its size, geographical location and economic sector. Therefore the company must emphasize managers to be able to identify the engagement starting on the first day of the recruitment orientation program. Ensure employees have the resources needed, provide appropriate training to improve knowledge and skills, establish appropriate reward mechanisms with financial and non-financial incentives, build organizational culture to encourage



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hard work and encourage life success (Markos & Sridevi, 2010; Kunerth & Mosley, 2011). According to Rothmann & Rothmann Jr (2010), there are two psychological conditions that make employees bound, namely the psychology of meaningfulness and availability based on the role of a fit job and positive job resources (B. Shuck, Reio, & Rocco, 2011). So that organizational growth becomes passionate, has a dedication and absorption ability of attachment (Stander & Rothmann, 2010). In addition to the need for employee development, leadership development is also needed to demonstrate empowerment behavior (Van Schalkwyk, Du Toit, Bothma, & Rothmann, 2010; Romanou et al., 2010). The manager's direct role is needed in shaping the interpretation of employees bound to work (M. B. Shuck, Rocco, & Albornoz, 2011; J. Xu & Thomas, 2011; Andrew & Sofian, 2012; Saks & Gruman, 2011; Mone, Eisinger, Guggenheim, Price, & Stine, 2011). Whereas to achieve full engagement in organizations, Robertson & Cooper (2010) findings state the need to integrate well-being and the basis of commitment to sustainability as a better basis for building the benefits of sustained engagement for individuals and organizations (Wollard & Shuck, 2011). Therefore it is very necessary for companies to broadcast engagement strategies with effective communication within the company (Welch, 2011). Symbols of attachment should be announced by the company owner so that there is no psychological disturbance with the program which done by managers at the company (Ghafoor, Qureshi, Khan, & Hijazi, 2011). This relates to the credibility, perceptions and reputation of an organization that impacts engagement (Men, 2012; B. Shuck & Herd, 2012).

The importance of strengthening internal communication with employees to build a culture transparency between management and employees in organizational priorities. (Mishra, Boynton, & Mishra, 2014). Millar (2012) said to get employees committed to the company, loyal pledges, it is not easy and Sonenshein & Dholakia (2012) found there are efficacy of changes that theoretically in the cognitive pathway explain the change in implementation by focusing on the relationship between strategic views. Whereas combining affective approaches and psychological sources explains both of them as important pathways in employee behavior during the implementation of strategy changes; and the benefits of initiation find both important in a broader **process** for employees to adapt to change (Albdour & Altarawneh, 2014). Then it can be positioned that marketing can play an important role in the engagement of employees.

### c. Supply Chain Engagement

Leadership has a strong influence to facilitate and foster a climate of management relations to achieve business success (Y. K. F. Cheung & Rowlinson, 2007; Berning & Venter, 2015; Kirkwood & Walton, 2010; Saunders et al, 2015). Supplier attachment to financial performance also influences the development of new products (Ragatz, Handfield, & Scannell, 1997; Primo & Amundson, 2002; Petersen, Handfield, & Ragatz, 2005) and influences business sustainability (Hong C. Zhang, Kuo, Lu, & Huang, 1997; Walton & Handfield, 1998; Hong C. Zhang et al., 1997). Engagement is also connected and involves stakeholders (Rantavaara et al., 2005). However, the benefits of strong engagement from stakeholders represent a different perspective. This was revealed by Umar & Chawaguta (2014) on the types of expertise and health of supply chain management.

Environmental management becomes an important topic in supply chain management, with only a little practice and theoretical understanding that addresses how companies provide supervisory, reward and training support for dealing with employee engagement in environmental behavior. David & Paula (2012) argues that it is very important to know employees' perceptions of the level of attachment to environmental behavior; and how organizations can modify the infrastructure of internal environmental behavior through the effects and commitment of employees (Sharma, 2014). Most of the management research in the supply chain only focuses on the ideal situation of producer engagement with all downstream partners. That is due to high costs, lack of trust or incompatibility of electronic data processing systems to help small and medium-sized companies. Disclosure of possible strengths and weaknesses does not appear in the reorder process. Likewise with the number and types of customers in the management system of inventory management or cooperation in planning,



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deepening and refilling is also not stated in the value of the goal. Whereas producers and consumers substantially benefit partially on increasing demand visibility (Thron, Nagy, & Wassan, 2006). Support from several customers will be valuable in the engagement process, but it is important to note the frequent delays in delivery and decreased service levels. It is possible to use the internet to facilitate services and create interactive work for users. The Increase of e-Business transactions become significant in sharing information and collaborative management practices in the supply chain in planning, deepening and refilling, becoming a successful and sustainable business operations strategy (Attaran & Attaran, 2007). Improving supply chain effectiveness through demand planning, production scheduling synchronization, production planning, logistics planning and new product design can force suppliers to innovate and build strong relationships with one another. Encourage smarter ways to do things with various actions (Kannabiran, 2009). Thus it can be positioned that management and a dynamic environment can increase engagement with sustainable supply chains.

### **d. Business Performance**

There are two different aspects of business performance namely product-market performance and financial performance (Morgan, 2012). The discussion in this study is the concept of product-market performance. According to Morgan (2012) that product-market performance concerns the response of customer buying behavior and prospects in the target market to realize the company's position in customer excellence. Furthermore, perception is improved by changing customer buying behavior in a way that is profitable for the company. If everything is the same, this improves the performance of market products in ways that can be captured by indicators, such as; greater sales volume, increase customer satisfaction and loyalty behavior, lower price sensitivity and growth in the company's market share. Or, the company realizes profit costs by choosing to offer offers equivalent to the value of shares offered and trying to maintain existing perceptions of buying behavior patterns in achieving customer targets while enjoying bigger profits than receiving the same selling price from competitors. Other research from Morgan, Clark, & Gooner (2002) explains that market performance concerns awareness of the markets and reactions to profits aware of the position achieved. This can be seen from customers, competitors and internal perspectives. From a customer perspective, market performance concerns cognitive and effective responses (for example; brand awareness and perceived quality) and the subsequent consequences of behavior (for example; purchasing decision making and actions) from customers prospect in the target market to realize the position advantage achieved by the company. From the perspective of internal orientation, market performance is manifested in subsequent effects on customer behavior in units and sales revenue. From a competitor's perspective, market performance indicators can be seen in the mind and market share. Whereas from the normative perspective, evaluating marketing performance can involve evaluating marketing resources and capabilities as a source of profit and financial position achieved. Market performance resulting from customer perceptions and behavior can be seen from the post-purchase of customers in the sales unit and increasing market share. The time needed between obtaining a source of profit and achieving an advantage position and market performance, as well as the main financial impact may differ among types of industries. Moya & Alemán (2012) argues that knowledge is needed to play this important role in improving product performance, both directly and indirectly through new product creativity and speed to market that depends on market competition (Kotabe, Jiang, & Murray, 2011).

The changes of competitive maps based on environmental concerns such as pandemic or ongoing natural disasters, a change in strategy in top management is needed to avoid risks due to the effects arising from the company's assets and finances (Leonidou, Katsikeas, & Morgan (2013). Strategy requires a dual ability to influence the external environment so that market performance and new products can run based on the changes (Chen, Li, & Liu, 2015), because the wealth of shareholders has an effect on the average competitor of the company (Aslan & Kumar, 2016). The effect on market performance in competing products is equal with post-activism improvements in productivity, cost and capital allocation efficiency targets, and product differences. These effects can be observed on the market performance of competing products which measured by profit margins (raising or lowering



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prices) and the types of market shares, operations and capital investment of competing companies. Conversely, to deal with competitors in responding to activism, it is necessary to cut the prices with efficiency and improve with product differences, so that the effect of overflowing the distribution of investment management activism can be equal with the improvement of company distribution. In addition to this, to deal with a competitor's finances, it is necessary to place restrictions by accommodating targets for improvement and competitors' business partners who are threatened by intervention. The description of the explanation on business performance raises the proposition that investment management activism can improve business performance

### 3. THEORETICAL PERSPECTIVE METHODOLOGY

The study utilizes a theoretical review of the extant literature. Theoretical studies and explanations about the engagement between market knowledge (Hou & Chien, 2010; Musteen et al., 2014; Barrales-Molina, Martínez-López, & Gázquez-Abad, 2014; H. Xu, Feng, & Zhou, 2016), Customer Engagement (Kumar et al., 2010; Brodie, Hollebeek, Juric', & Ilic', 2011; Vivek et al., 2014), Employee Engagement (Macey & Schneider, 2008; Kumar & Pansari, 2014), Supply Chain Engagement (Attaran & Attaran, 2007; Saunders et al., 2015) and Business Performance (Morgan, 2012; Leonidou et al., 2013) have been justified and stated as new concepts in market research by Sarkum, Pramuka, & Suroso (2017) the new concept is called Dynamic Marketing Engagement.

The derivation of the concept begins with the RBV view of concept Wernerfelt (1984), regarding "resource position barrier" which inspires many researchers to consider and differentiate company resources as a source of sustainable competitive advantage. However, after eleven years of view of the RBV, Wernerfelt (1995) states it is not important for the coming year based on a strategy of differences between companies. This is also different from the view of the RBV after eleven years from 1991 for further research agendas, but not according to Barney, Wright, & Ketchen (2001) who say, it is indeed not important, but instead working on dynamic capabilities is true and consistent with logic early RBV. The ability to learn and change possibilities, becomes one of the most important abilities a company has. The ability to get and produce profits is much worthy to be the concern of researchers. The affirmation came from Cho & Pucik (2005) who in the view of the RBV were the result of imitating sustainable, rare, and not competitive power from intangible resources (Barney, 1991). Therefore, companies which have intangible resources can gain competitive advantage from the market.

Responding to this, Newbert (2007) sees that there is a shift of view using the view of the RBV in the future. The dominance of the heterogeneity resource approach will move to a dynamic capability approach. The dynamic capability theory better reflects the ongoing situation than using the original RBV model from Barney (1991). Seen in the last 25 years, the view of the RBV as a strategic theory remains questionable for the nature and accuracy of the methodological approach in empirical research (Lockett, Thompson, & Morgenstern, 2009). Multicollinearity and endogeneity problems in complex, unobservable and difficult to measure resources. Although the core message of the RBV is very interesting, easy to understand, and easy to teach, but the other RBV's unspecified nature of the two basic concepts of resources and RBV's excess value is of concern, because of the RBV's narrow explanation of competitive advantage. Regarding to this, Kraaijenbrink, Spender, & Groen (2010) proposed the moving RBV into inherently dynamics preferably with a subjective and tightly clarified framework by J. B. Barney, Jr, & Wright (2011) which states one of the theories implicating maturity and declared critical when followed by revitalization or decline. Although the revitalization of RBV and Resource Based Theory (RBT) raises questions on both views in operations management research (Ketokivi 2016); and refuted by Hitt, Xu, & Carnes (2016) who claim that resource-based views are indeed a theory that can be used in operations management research rather than RBT because of conceptual clarity and validity of measurements from RBT. Then the claim was refuted again by Bromiley & Rau (2016) which stated that empirical operations management research was not explained by the RBV. This refusal is mediated by Bromiley & Rau (2016) who provide solutions to Practice Based View (PBV). Beyond the RBV, RBT and PBV debates, dynamic capabilities can



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integrate, build and configure internal and external competencies of companies to cope with a rapidly changing environment (Helfat et al, 2007; D. J. Teece, Pisano, & Shuen, 1997). The view of resources, dynamic is in capability, as the capacity of organizational learning which produces additional opportunities over time, complementing each other. The definition of capability is the simultaneous creation of resources and factors of production in productive activities (Teece, Pisano, & Shuen, 1997; Helfat & Peteraf, 2003). According to Teece (2007) companies need a dynamic ability to adapt to the changes in the environment and shape the ecosystem which is occupied. Dynamic capabilities enable companies to renew competencies to respond to changing market needs, learn about integration, reconfigure internal and external skills through company resources (D. J. Teece et al., 1997).

The dynamic capability approach also provides a coherent framework for integrating existing concepts into empirical knowledge and facilitating what has been recommended by decision makers (D. Teece & Pisano, 2003). This is the mean of Newbert (2007) discussion and the subsequent directions proposed by Kraaijenbrink, Spender, & Groen (2010) beforehand. The dynamic capability framework mentioned by Augier & Teece (2007) has touched "Penrose" as one of the main intellectual foundations for a modern resource theory based on business strategy, organizational routines and the ability to place entrepreneurial management in multinational corporate theory as a dynamic capability framework. The Penrose touch helps explain the essence of a company's business that escapes the absence of the profit trap, as explained by Augier & Teece (2009) that companies are formed by products of their own history and therefore management should not be trapped by investment decisions which they call design evolution. Basically, the dynamic ability paradigm sees companies as incubators and repositories to replicate technological assets and other intangible assets to improve company performance (Augier & Teece, 2009; D. J. Teece, 2010b). Dynamic abilities are also able to feel and seize various forms of opportunities that arise. Being able to maintain competitiveness by increasing, combining, protecting, and reconfiguring intangible and intangible assets (Wu, 2010).

It needs to be understood that dynamic capability (Schumpeter) is a competition arising from products and innovation processes in a competitive market by bringing injustice, price competition and anti-trust to the product and the company, thus impacting on the cancellation of purchases by customers (Gregory Sidak & Teece, 2009).. To deal with this, D. J. Teece (2010) argues, a business model is needed that illustrates the design of value creation, delivery and job taking mechanisms that can provide value to customers, persuade customers to pay value and convert these payments into profits. In practice, Leih, Linden, & Teece (2015) state that dynamic abilities can be broken down into three parts of activities, they are, opportunities to feel, use them, and change organizations to do so. The business model of innovation, implementation, and renewal is the main outcome of these activities and shows that the dynamic capability framework can better understand the role of the business model for long-term performance. The dynamic capability framework points to the importance of high level internal cooperation supported by a culture of openness and knowledge sharing. It also shows that activities such as sensing can be supported by decentralization combined with internal communication. Whereas for different innovation business models in management requires different leadership intervention, so that the model can be implemented to achieve success (Foss & Stieglitz, 2015). Furthermore, at the same position in the real world, D. J. Teece (2015) stated that the manager's role is needed to fill entrepreneurship and the leadership role explaining the allocation of resources and diversity in order to feel opportunities, develop and implement a proper business model, the ability to build and guide organizations through transformation. The understanding of management and the entrepreneurial capabilities of the organization will contribute to a more realistic economic model and a better understanding by policy makers of industrial dynamics as a requirement of innovation. Therefore, it is very important to do a critical evaluation of the company's ability to adapt and change subscription-based capabilities into multiplatform multi-product (Oliver, 2016). Dynamic capability theory makes a valuable contribution to the debate on how companies can maintain high-level performance in the face of rapid market changes. In a dynamic market, companies



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must be able to adapt and refresh existing resource bases to develop new capabilities with competencies which provide sustainable competitive advantage over time.

This recent time, the theory of dynamic capability is strongly influenced by the view of the economic evolution of Helfat & Peteraf (2003); technological views by Lavie (2006); and the view of management innovation by Teece, Pisano, & Shuen (1997). And lately there has been much discussion by researchers on marketing perspectives, such as Barrales-Molina, Martínez-López, & Gázquez-Abad (2014) which states that one significant problem occurs is how the role of marketing functions in the development of dynamic capabilities (Bruni & Verona, 2009; Fang & Zou, 2009; Oliver, 2016). Although, Wang, Hu, & Hu (2013) have stated that Dynamic Marketing Capabilities allow companies to identify market signals, evaluate the process of goods or services, design and implement effective responses to the market changes. Similar to Tan & Sousa (2015) which states that the principle of dynamic capability theory is marketing ability (Fang & Zou, 2009). Dynamic marketing capabilities enable companies to meet changing customer needs and respond to competitive pressures in the market, appropriate to adapt, integrate and reconfigure the organization's internal and external skills, resources, and functional competencies including product development, pricing, distribution, and communication (Teece, Pisano, & Shuen, 1997; Griffith, Yalcinkaya, & Calantone, 2010). Dynamic marketing capabilities are deeply attached to organizations and have a higher level of value, rare, difficult to replicate and irreplaceable. This is the lack of explanation from the views and theories on RBT, RBV and PBV. One element is the crucial role of social media as a marketing tool that bridges companies to compensate for managing customer relationships; change assessment metrics to be easily detected; evaluating the performance of each element that supports the overall marketing strategy so that it affects decisions, acquisitions and retention (Malthouse, Haenlein, Skiera, Wege, & Zhang, 2013). Social network users find it very difficult to provide support, attention and spend time enthusiastically with the company. Companies must compete with extremes to integrate customer relationship management in social media networks to obtain and develop data, because customers and virtual networks are very influential in driving conversations (Baird & Parasnis, 2011). The role of media in Covid-19 and virtual methods are the main tools in carrying out the company's strategy (Ang, 2011). Integration can be obtained from the mood, attitude and behavior of customers to help getting the benefits of the entire value chain. The integration according to Rishika, Kumar, Janakiraman, & Bezawada (2013) will have an impact on forecasting and demand and shape promotion (Woodcock, Green, & Starkey, 2011).

Kotler, Brady, Goodman, & Hansen, (2009) stated that, it is very important for companies to notify buyers, communicate, promote and sell through the internet because it can create satisfying exchanges between individuals and organizations (Eid & El-Gohary, 2013; Barwise & Farley, 2005; Brodie, Winklhofer, Coviello, & Johnston, 2007). Beside that, it can also increase competitive performance, Efficiency in the value chain, reduce costs, get word of mouth promotions, increase the number of subscribers and sustainable channel relationships (Tsiotsou & Vlachopoulou, 2011). Lahuerta Otero, Muñoz Gallego, & Pratt (2014) added, utilizing social media links connected to company websites can improve Search Engine Optimization (Gajendra Sharma & Wang (2015). According to Constantinides (2014), social media has changed the structure of power in the market with the emergence of a new generation of customers who are strong and sophisticated, difficult to influence, seduced and defended. This is about customer empowerment agents (Stelzner, 2015; Crager, Ayres, Nelson, Herndon, & Stay, 2014; Carlota, Efthymios, & María-del-Carmen, 2013; Ellison, Steinfield, & Lampe, 2007; Chu, 2011). Social media aims to establish relationships with customers in a system that has an effect on management and business. It's about corporate strategy, how to establish relationships in the public sphere (Askool & Nakata, 2011; Heidemann, Klier, & Probst, 2012). With e-mail, PDA technology (Personal Digital Assistant) and smartphone devices customers can receive facilities from sales, service, and marketing vendors and interact among customers. At this stage, the most severe focus the company's facing is the implementation assessment of the customer relationship management on customer value, satisfaction, loyalty and retention. Kim, Suh, & Hwang (2003) explain that there are four components of centralized customer evaluation in first customer



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relationship management; lifetime customer value and loyalty; second, customer satisfaction, retention and acquisition; third, customer interaction; and fourth, customer knowledge, profile and understanding. This component results in the implementation of e-CRM in businesses on the internet that require continuous improvement based on an assessment from the customer's perspective.

Two different understandings require a comprehensive effort from the company to still exist so as not to fail in integrating customer relationship management using internet technology (Kimiloglu & Zarali, 2009; Greenberg, 2010; Jayachandran, Sharma, Kaufman, & Raman, 2005). Several studies on social CRM explain that social CRM aims at the customer relationship performance (Maklan & Knox, 2009; Keramati, Mehrabi, & Mojir, 2010; Rapp, Trainor, & Agnihotri, 2010; Trainor, 2012; Lehmkuhl & Jung, 2013; Trainor, Andzulis, Rapp, & Agnihotri, 2014; Choudhury & Harrigan, 2014; Harrigan & Miles, 2014). Once the strategic engagement of customers in relationship marketing, Vivek, Beatty, & Morgan (2012) argues that customer engagement as an intensity of individual participation in offering relationships with organizations consists of cognitive, emotional, behavioral, and social elements. While Bowden (2009) provides a deeper and more complete understanding of the nature of customer and brand relationships in the engagement process that can be developed and fostered between different customer segments. Customer attachment relates to behavior, attitude, ethics, style, mood and others that are attached to an individual's person in seeing, responding, supporting and interpreting a company from products or services offered to be used by the customers or to be traded with the starting point of movement from mouth to mouth to recommend to other individuals.

Previously, Doorn van et al., (2010) had defined customer engagement behavior as a manifestation of customer behavior towards a brand or company outside of purchases that resulted from motivational steering (Verhoef, Reinartz, & Krafft, 2010). In an interactive and dynamic business environment, the role of customer engagement in creating creation is really needed. Brodie, Hollebeek, Juric´, & Ilic´ (2011) explain that customer attachment is a psychological state that occurs based on interactive, creative customer experience experiences with voice / object intermediaries (for example, brands) as the focus of relationships in services. This occurs under a specific entity depending on the context of conditions which results in different levels of customer engagement; and it is an iterative dynamic process in service relationships to evaluate creation. Customer engagement also plays a central role in nomological government relations network services, where other relational concepts are antecedents and / or consequences in re-processing customer engagement. This is the subject of multidimensional concepts for the context and / or expressions of certain cognitive stakeholders that are relevant to the emotional and / or behavioral dimensions. More specifically explained by Sashi (2012) that there are four types of relationships arising from the development of customer attachments, they are: customer transactions, happy customers, loyal customers, and fans. But to get the stage, first through the circle of customer attachment that starts from connection, satisfaction, retention, commitment, advocacy and then is attachment (Halloc, Roggeveen, & Crittenden, 2016). Marbach, Lages, & Nunan (2016) explained that there are seven personality traits associated with online customer engagement, namely introversion / extroversion, friendliness, awareness, openness to experience, need for activities, need for learning and altruism. The concept of attachment actually starts with Kahn (1990) socio-psychological approach which states that people are personally bound in psychological situations and willing to break away in situations that are less willing to be bound. In the context, customer engagement has a close relationship with employee engagement (Kumar & Pansari, 2014). Engagement can improve company service, customer satisfaction and company performance results. In addition, employee engagement can increase customer satisfaction and increase sales turnover and benefit short-term financial goals (Harter, Schmidt, & Hayes, 2002).

There are differences in attachment between employee and company linkages, where employee engagement is predicted by job characteristics, and the company is predicted from procedural fairness (Saks, 2006). Companies that have done procedural fairly and have engaged employees in their operations are certain to be very difficult to surpass by competitors because they have the key to competitive advantage (Macey & Schneider, 2008; He, Zhu, & Zheng, 2014). Employee consistency



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in attachment to the company is always influenced by demands caused by fatigue which tends to be seen as a negative hurdle and vice versa (Crawford, Lepine, & Rich, 2010). In engagement management, according to Gruman & Saks (2011), performance agreements and engagement facilities must be found that provide input as a continuous process, have psychological significance, guarantee safety and be respected (psychological availability). Furthermore, at the stage of facilitating attachment; the main focus is to identify and provide the needs of the employee's resources to become attached. At this stage, it involves job design, leadership, training, coaching and social support. While the foundation of the process is the assessment and evaluation of employee performance. In addition to management performance, this process also includes assessing employee engagement behaviors as a basis for evaluating performance and feedback. The aim of increasing employee engagement, trust and fairness is expected to have a direct effect in improving job performance. The focus and energy which attached to work engagement enable employees to fully devote the potential and quality of responsibility to the core work, have the capacity and motivation to concentrate. To achieve success Bal, Kooij, & De Jong (2013) suggest that companies meet the specific needs of employees, selection, optimization of strategies and compensation. In addition, transformational leadership that respects unity, contributes, professional and plays the role of PR (Public Relations) is needed to build a culture of transparency with management (Breevaart et al., 2014; Mishra et al., 2014).

The success of the company's business does not necessarily come from two aspects of engagement, there is one attitude from actors for the competitive advantage of sustainability. This involves the value chain of the retailers collaboration and suppliers The success of the company's business does not necessarily come from two aspects of engagement, there is one attitude from actors for the competitive advantage of sustainability. This involves the value chain of the collaboration of retailers and suppliers (Berning & Venter, 2015). The role of suppliers in the supply chain is very important to be involved to bridge the relationship between buyers and suppliers as the process of customer relationship management (Duffy, Fearne, Hornibrook, Hutchinson, & Reid, 2013). For this reason supplier selection is needed to achieve success in managing relationship performance in competitive markets to improve purchasing performance (Kannan & Choon Tan, 2006). Although Cherin (2000) argues that the concepts and practices of organizational engagement do not yet exist in language or understanding of management; More subtly stated Juhdi, Pa'wan, & Hansaram (2013), rarely studied. Until finally Barrick, Thurgood, Smith, & Courtright (2015) answered that and stated that engagement can be considered as a construct at the organizational level that is influenced by organizational practices that focus on motivation and represent the level of company resources. The whole member of the organization are physical, cognitive, and emotional invested in the workplace. Full attachment is needed for psychological meaningfulness, security, and availability; and a pleasant workplace to create enjoyment that stimulates overall engagement with units, teams and or organizations (Plester & Hutchison, 2016). Based on the explanation and understanding of dynamic capabilities and attachments that previously have been stated, it can be summarized as a basis for drawing conclusions that dynamic marketing capabilities are a portfolio of dynamic capabilities that are tied to social relations to customer, employee and supply chain management. this is about the role of multi actors in the context of competitive advantage as a performance goal in the company's business; and claims, the new concept of Dynamic Marketing Engagement (DME) already has a strong theoretical basis. Sumitro Sarkum et al.(2017) explained the concept of DME is a strategy of the ability and skills of company knowledge in two different markets (offline to online). The findings in this article describe the process of implementing a dynamic marketing engagement, marketing and operational collaboration, which involves multi-actor engagement (customers, employees and supply chains) in it. The company's internal and external involvement in the collaboration knit is the relationship of an engagement in facing, entering and maintaining and continuing in a competitive, broad and volatile market.



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### 4. RESULTS AND DISCUSSIONS

In the process of dynamic marketing capabilities, knowledge is needed in managing the market as a skill to maintain the company's competitiveness and competitive advantage. In addition, market management knowledge also plays a role in integrating and configuring the company's internal and external competencies in order to cope with a rapidly changing environment. To achieve success in a competitive market, a company must be able to deal with changing trends that occur among customers. Furthermore, corporate responsibility is needed to empower employees with a more open system so that competitive advantage can run successfully. After that, companies need to involve the supply chain in the process of managing customer relationship management to meet the buyers and suppliers in the company's marketing strategy. Therefore, substantive directions for future research on the development of empirical models based on the concept of Dynamic Marketing Engagement are scheduled as follows: first, future research should begin by proving the four propositions outlined and reducing them to empirical variables as a basis for testing in further research; second, the collection of research sample data should be taken from populations who have implemented and conducted online marketing systems from offline to online in the pandemic era; third, proving marginal DME concepts with indicators of concepts and theories that underlie the formation of DME or generate new indicators through the longitudinal

### 5. CONCLUSION

The originality of the concept in this study discusses the location and order of theory as an explanation of the concept of Dynamic Marketing Engagement (DME) in addressing a changing market. Whatever the reason is, DME is a new concept that has gone through a process of revitalization and synthesis of theories that support the findings of the microfoundation perspective. The emphasis on organizational competitive advantage stems from relationships, engagement and ability for sustainability is the basis of microfoundation. This concept has an important role in the discovery of new theories or constructs which strengthen dynamic capability theory and other marketing theories at the level of marketing strategy management. The contribution of DME to marketing records as a new perspective strengthen the theoretical basis of dynamic marketing capabilities and multi-actor engagement as a sustainable competitive advantage.

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## THE EFFECT OF ORGANIZATIONAL CULTURE AND JOB SATISFACTION ON TURNOVER INTENTION” AT BNI 46 JAKARTA

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### Abstract

The background of this research was an employee who feels satisfied in his work, will show an overall good attitude in the workplace and lead to increased commitment to the organization that eventually will lead to lower intentions to exit from the company . The objective of this research is to analyze the influence of organizational culture ( BO) and job satisfaction on Turnover Intention The design of this research applies Confirmatory Factor Analysis ( CFA) which will result in the factor loading of each item is on though with the help of SPSS, structural equation modelling ( SEM), and the overall fit model. Data analysis applied measuring method on primary data that was obtained from respondents in though with the help of a computer program package SPSS 10 ( Statistical Package for Social Science ) for Windows and AMOS 7 ( Analysis of Moment Structure). The result of research indicated that there is a significant influence of organizational culture on job satisfaction, there is a significant negative influence of organizational culture to Work Moving intentions, there is a significant negative influence of organizational culture to Work Moving intentions.

**Keywords:** *organizational culture, job satisfaction, and turnover intention*

### 1. INTRODUCTION

In the field of organizational behavior, the researchers argue that organizational performance is greatly influenced by the performance of its employees and researchers suggest that employee performance is influenced by job satisfaction.

Rus and Mc Neilly (2005). suggest that employees are dissatisfied, have no commitment and intend to change jobs and are busy looking for outside work opportunities, and will actively seek them out and if they get better opportunities they will move, vice versa if the opportunity is not available or less attractive, then emotionally and mentally they will leave the company, namely by often skipping work, less enthusiasm and less effort.

Someone who has high job satisfaction will show a positive attitude towards his job, while someone who is not satisfied will show a negative attitude towards the job itself(Robbins and Judge, 2009). Carsten and Spector (2007) found a relationship between job satisfaction and turnover and intention to quit. Similar research was conducted by Arnold and Feldman (2012) argue that the higher the level of employee job satisfaction, the higher the level of intention to stay in the company. An employee who is satisfied with his job will show an overall good attitude at work and lead to increased commitment to the organization which will eventually lead to low intention to leave the company (intention to quit) (Raabe and Beehr, 2013; Ramaswami and Singh, 2013).

Busch et al. (2008) in Hwang and Huei Kuo (2016) explain that someone who is relatively satisfied with his job will stay in the company longer, and can reduce employee turnover and reduce absenteeism.

The new identity PT BNI is redesigned to create an identity that looks more fresh, more modern, dynamic, and describe the position and direction of the new organization. The identity of the new brand expression composed of symbols "46" and the word "PT BNI" which subsequently combined in a form of a new logo PT BNI. The letters "PT BNI" made in the new turquoise color, to reflect the



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power, authority, robustness, uniqueness and a more modern image. The letter was made specifically to produce an original and unique structure. Figures 46 is a symbol of the date of birth of PT BNI, and reflects its heritage as a first bank in Indonesia. In this logo, the number "46" is placed diagonally penetrate the orange box to describe the new, modern BNI. Corporate color palette has been redesigned, but still retain the old corporate colors, the turquoise and orange. Turquoise color that is used in this new logo darker, stronger reflect the image of a more stable and sturdy. New orange color brighter and stronger, reflecting the image of confidence and fresh. Logo "46" and "PT BNI" reflects a modern and dynamic appearance. While the use of the new corporate colors reinforce the identity. This will help PT BNI perform differentiation in the banking market through its unique identity, fresh and modern.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

According to Robbins and Judge (2009), organizational culture is "a system of shared meaning held by members that distinguishes the organization from other organizations" or a system of sharing meanings carried out by organizational members that differentiates between one organization and another. Meanwhile, Jones (2014) suggests that organizational culture is "the set of shared values and norms that controls organizational members interactions with each other and with suppliers, customers and other people outside the organization."

Organizational culture is viewed as a combination of values and norms that control the interaction of one organizational member with other organizational members, as well as with suppliers, buyers, and others outside the organization.

Meanwhile Kapella (2010) states that the organizational culture environment is very important in creating values aimed at building organizational characteristics and values to be carried out by all elements of the company. To support this research, the dimensions of organizational culture used in the organizational culture measurement scale are the five dimensions of culture from Zeitz et.al. (in Carmeli, 2005). The dimensions of organizational culture are job challenges, communication, trust, innovation and social cohesion.

Job satisfaction is basically something that is individual. Each individual has a different level of satisfaction, according to the value system that applies to him. In general, it is said that job satisfaction is a person's feelings about their job (Novliadi, 2017). Job satisfaction is an important thing that every individual has at work. With a high level of job satisfaction they will work in earnest, so that organizational goals are well achieved.

Adam as quoted by Novliadi (2017) argues that the satisfaction and dissatisfaction that a person feels depends on whether he feels there is justice (equity) or not for the situation. This feeling is obtained by comparing himself with other people at the same level, at work or elsewhere. This opinion is the basic principle of "Equity Theory" which was developed by Adam. According to this theory, there are three elements of equity, namely: input, outcomes, comparison person, and the existence of equity-inequity situation.

Ancok, as quoted by Novliadi (2017), says that intention is a person's intention to perform certain behaviors. The intention to perform this behavior is closely related to belief about something, attitude towards it, and the behavior itself as a concrete manifestation of the intention. Michaels and Spector (2011) argue that intention is the single best predictor of a person's behavior, so turnover intention is the best predictor of symptoms or behavior intention to move work. This is supported by Azjen and Fishbein (in Tuzun, 2007) stating



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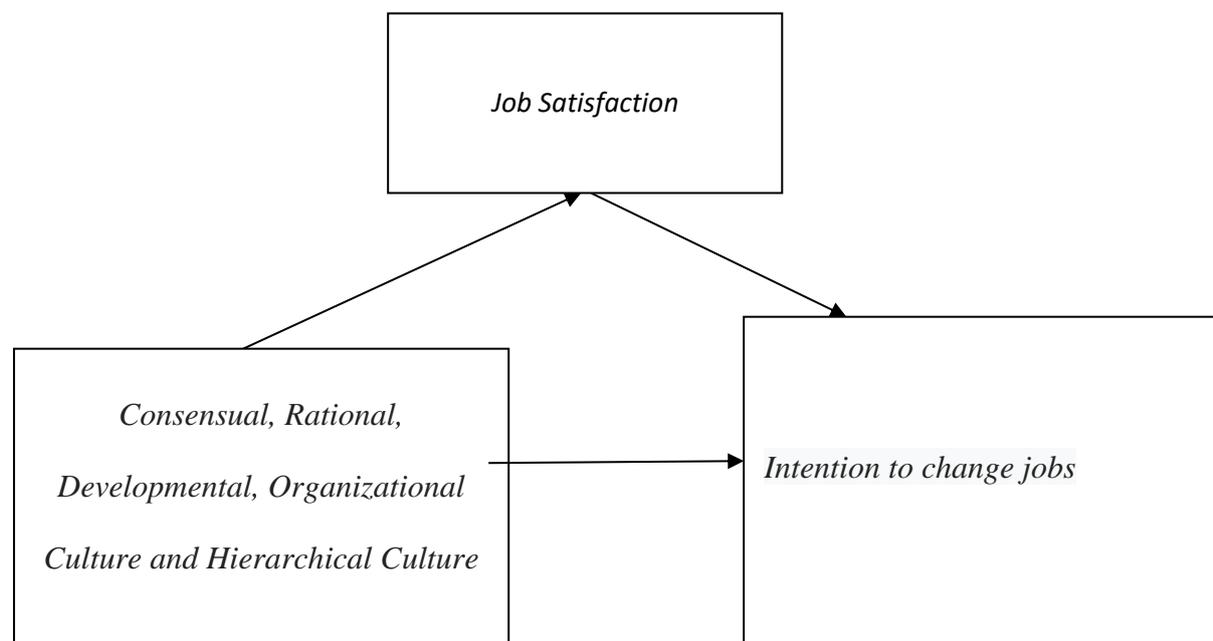
that "intention is the most immediate determinants of actual behavior. The organization must have values that have been believed, upheld, and become the driving force of most members of the organization as valid rules of the game to achieve the desired goals, making those values the organizational culture. There are seven characteristics that make up an organizational culture:

- (1). innovation and risk taking;
- (2) attention to detail;
- (3). results oriented;
- (4). human-oriented;
- (5). team oriented;
- (6). aggressiveness;
- (7). stability (Robbins, 2008: 248).

There are five factors that shape employee job satisfaction, namely:

- (1) payment;
- (2) the work itself;
- (3) promotion of position;
- (4) supervisory
- (5). co-workers
- (6). working conditions.

The figure below explains the conceptual framework of the influence of organizational culture and employee job satisfaction.



### HYPOTHESIS DEVELOPMENT

From the results of the above research, it can be concluded that job satisfaction has a negative effect on the intention to move jobs, so the hypothesis that can be proposed in this study is as follows:

- H1. Organizational culture has a significant positive effect on job satisfaction
- H2. Organizational culture has an effect on turnover intention



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H3. Job satisfaction will have a negative relationship with turnover intention.

### **Organizational Culture and Employee Job Satisfaction**

Organizational culture has a positive effect on job satisfaction

Hypothesis testing conducted proves that there is a positive influence between organizational culture and job satisfaction. This shows that a good organizational culture can increase employee job satisfaction and can reduce the intention to move or in other words the more conducive the organizational culture will be, the more satisfied employees will be with their work.

From the research results, it is found that the indicator of the level of mutual trust among organizational members has the greatest contribution compared to other indicators on the dimensions of job satisfaction. By looking at the influence of the highest level of mutual trust between members of the organization on job satisfaction, in order to increase employee job satisfaction, continuous efforts are needed so that the level of mutual trust between members of the organization is always well maintained. Concrete efforts that can be made to foster good mutual trust between employees are that employees must know each other, there is a high responsibility for the duties and responsibilities of each employee, management needs to hold events that can create togetherness and cohesiveness and regular inter-departmental briefings are needed.

In addition to the level of trust among members of the organization, another factor that must be considered by the company is the management control method, because this indicator still contributes to a high enough influence on employee job satisfaction. Competency-based management control methods that are not forced on individual employees can increase employee job satisfaction.

Other indicators in a row based on the level of influence on increasing job satisfaction are the indicators of mutual support, utilization of personnel, communication within the organization, and the following other indicators.

### **Organizational Culture and Turnover Intention**

According to Mobley (2009) in Lum et al., (2011) organizational culture is defined as a definite desire to maintain its participation in the organization. Individuals who have a low organizational culture tend to seek better job opportunities and leave their jobs because they have a desire to leave the organization.

The desire to move is the tendency or degree to which an employee has the possibility to leave the organization (Bluedorn, 2012 in Grant et al. 2015). Mobley Horner, and Holiingsworth, 2009 in Grant et al., 2011), the higher Job Satisfaction and Organizational culture is expected to reduce the intention or purpose of employees to leave the organization. Furthermore, employees who are dissatisfied with aspects of their work and have no commitment to their organization are more likely to seek employment in other organizations.

### **Job Satisfaction and Turnover Intention**

In order to strengthen research on job satisfaction, Herzberg in Dessler (2010) and Djati and Khusaini (2013) argue that everyone wants two kinds of need factors, namely: first the need for maintenance. This has to do with the nature of humans who want to find outward peace.



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Maintenance factors include remuneration, physical working conditions, job security, pleasant supervision, official cars, official housing and various other benefits.

The loss of this maintenance factor can cause dissatisfaction and increase employee absenteeism and turnover. These maintenance factors need proper attention from the leadership so that employee satisfaction and morale can be increased.

According to Mobley (2009), organizational culture is defined as a definite desire to maintain its participation in the organization. The desire to move is the tendency or degree to which an employee has the possibility to leave the organization (Bluedorn, 2002 in Grant et al. 2013)

Further according to Mobley Horner, and Hollingsworth, 1978 in Grant et al., 2001), the higher Job Satisfaction and Organizational culture is expected to reduce the intention or purpose of employees to leave the organization.

### 3. RESEARCH METHODOLOGY

This chapter describes the research methodology which consists of research design, namely survey; variable and measurement scales, operational variable / measurement definitions, namely the dependent and independent variable; data collection methods and data analysis methods used to investigate the relationship between leadership style, organizational culture, job satisfaction, desire to change jobs, and work performance.

#### Instrument Test

Before the primary data is processed, first an instrument test is carried out consisting of validity and reliability tests on the collected data. A tool to test the validity of the constructs used in the study is Confirmatory Factor Analysis (CFA) which will produce the loading factor value of each item processed with the help of the SPSS program. If the loading factor value is above 0.30 then the statement items can meet the measurement criteria for each construct used. The results of the factor weight significance test of the model above can be seen from the table below:

**Table 1: Validity Test Result**

No	Item	Variabel	Loading Factor	Decision
1	Com5	Organization Culture	0.707	Valid
2	Com6	Organization Culture	0.689	Valid
3	Com7	Organization Culture	0.650	Valid
4	Com8	Organization Culture	0.612	Valid
5	Inn13	Organization Culture	0.705	Valid
6	Inn14	Organization Culture	0.684	Valid
7	Inn15	Organization Culture	0.675	Valid
8	Inn16	Organization Culture	0.651	Valid
9	Job1	Organization Culture	0.719	Valid
10	Job2	Organization Culture	0.741	Valid
11	Job3	Organization Culture	0.779	Valid
12	Job4	Organization Culture	0.723	Valid
13	Soc17	Organization Culture	0.678	Valid
14	Soc18	Organization Culture	0.784	Valid
15	Soc19	Organization Culture	0.769	Valid
16	Soc20	Organization Culture	0.765	Valid



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17	Trs10	Organization Culture	0.701	Valid
18	Trs11	Organization Culture	0.760	Valid
19	Trs12	Organization Culture	0.755	Valid
20	Trs9	Organization Culture	0.668	Valid
21	Gaji1	Job Satisfaction	0.777	Valid
22	Gaji2	Job Satisfaction	0.796	Valid
23	Gaji3	Job Satisfaction	0.803	Valid
24	Gaji4	Job Satisfaction	0.780	Valid
25	Gaji5	Job Satisfaction	0.793	Valid
26	Gaji6	Job Satisfaction	0.780	Valid
27	Gaji7	Job Satisfaction	0.832	Valid
28	Kon10	Job Satisfaction	0.819	Valid
29	Kon11	Job Satisfaction	0.880	Valid
30	Kon12	Job Satisfaction	0.868	Valid
31	Kon13	Job Satisfaction	0.840	Valid
32	Kon14	Job Satisfaction	0.844	Valid
33	Kon8	Job Satisfaction	0.816	Valid
34	Kon9	Job Satisfaction	0.814	Valid
35	Pek37	Job Satisfaction	0.809	Valid
36	Pek38	Job Satisfaction	0.804	Valid
37	Pek39	Job Satisfaction	0.820	Valid
38	Pek40	Job Satisfaction	0.773	Valid
39	Pim30	Job Satisfaction	0.664	Valid
40	Pim31	Job Satisfaction	0.702	Valid
41	Pim32	Job Satisfaction	0.821	Valid
42	Pim33	Job Satisfaction	0.860	Valid
43	Pim34	Job Satisfaction	0.834	Valid
44	Pim35	Job Satisfaction	0.783	Valid
45	Pim36	Job Satisfaction	0.832	Valid
46	Pro15	Job Satisfaction	0.836	Valid
47	Pro16	Job Satisfaction	0.844	Valid
48	Pro17	Job Satisfaction	0.770	Valid
49	Pro18	Job Satisfaction	0.759	Valid
50	Pro19	Job Satisfaction	0.774	Valid
51	Pro20	Job Satisfaction	0.728	Valid
52	Pro21	Job Satisfaction	0.776	Valid
53	Rek22	Job Satisfaction	0.739	Valid
54	Rek23	Job Satisfaction	0.758	Valid
55	Rek24	Job Satisfaction	0.705	Valid
56	Rek25	Job Satisfaction	0.724	Valid
57	Rek26	Job Satisfaction	0.643	Valid
58	Rek27	Job Satisfaction	0.703	Valid
59	Rek28	Job Satisfaction	0.710	Valid
60	Rek29	Job Satisfaction	0.683	Valid
61	Turn1	Turnover Intention	0.745	Valid
62	Turn2	Turnover Intention	0.842	Valid
63	Turn3	Turnover Intention	0.768	Valid



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64	Turn4	Turnover Intention	0.747	Valid
65	Turn5	Turnover Intention	0.674	Valid

Sources: Zeith et al. (2007); Chockalingan Viswesvaran (2008); Chen, Zhen Xiong, and Anne Marie Francesco (2000) in Fuad Mas'ud (2014)

\*) The value of these indicators is obtained from the mean value of the sub-sub indicators or questions contained in the questionnaire

Based on the table above, it can be seen that all indicators (items) have a loading, factor value greater than 0.5 so it can be said that all indicators can be said to be valid

The data used in this study were collected from self survey reports by employees at two banks in Jakarta, namely Bank BNI 46 and the Bank Mandiri area in Jakarta.

### 4. RESULTS AND DISCUSSIONS

Descriptive data analysis is used to describe the condition of the respondent's answer for each variable. The questionnaires distributed by respondents were 100 questionnaires. The questionnaires that returned and met the sample criteria were 100 questionnaires. The results of the answers from the questionnaire are then used to obtain the tendency of respondents' answers regarding the conditions of each research variable.

The data analysis used in this research is Structural Equation Modeling (SEM) by first testing its dimensions with confirmatory factor analysis. Evaluation of the SEM model will also be analyzed to obtain and evaluate the suitability of the proposed model. After all the data processing results are known, the next one will be discussed and the last one is to draw conclusions based on the results of the analysis of these results.

Descriptive data describing the state or condition of the respondent is necessary considered as additional information for understanding the results research.

Respondents in this study were employees of the marketing department Bank BNI. The respondents of this research can then be broken down by type gender, age, and last education. The three demographic aspects has an important role in assessing the intention to move a part employee marketing of Bank BNI

### 5. CONCLUSION

There are three hypotheses proposed in this study. The conclusions of the three hypotheses are as follows:

#### 1. Conclusion regarding Hypothesis 1

H1: Organizational culture has a positive effect on job satisfaction

Hypothesis testing conducted proves that organizational culture has a positive influence on job satisfaction. Thus the higher the level of employee organizational culture in the workplace, the higher the level of job satisfaction which can increase the intention to move employees.

From the research results, it is found that indicators of rational culture and consensual culture have a greater influence than other types of culture on the dimensions of job satisfaction. By looking at the influence of rational culture on job satisfaction which is quite high, the supporting factors of a rational culture such as the role of the manager in work relations with subordinates, cooperation between parts of the organization, communication between employees in the organization, the fulfillment of adequate work infrastructure, the adequacy of a labor in one part, the importance of managing rest time and time for work as well as other indicators of rational culture are factors that must be considered by companies in order to increase employee job satisfaction in order to reduce the intention to move.



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Besides the rational culture and consensual culture are indicators that must also be considered by the company because this indicator also contributes a significant influence on employee job satisfaction and affects the intention to move.

### 2. Conclusion regarding Hypothesis 2

H2 : Organizational culture has a negative effect on the intention to move jobs

Hypothesis testing conducted proves that there is a negative influence between organizational culture and intention to move jobs. This shows that the organizational culture is both can reduce the intention to move work in other words, the more conductive the organizational culture, the more satisfied employees will be with their work. From the research results, it is found that the indicator of the level of mutual trust between members of the organization has the greatest contribution compared to other indicators on the dimension of intention to move work. By looking at the influence of the level of mutual trust between members of the organization with the highest intention to change jobs. Concrete efforts that can be made to foster good mutual trust between employees are that employees must know each other, there is a high responsibility for the duties and responsibility of each employee, management needs to hold events that can create togetherness and cohesiveness and regular inter departmental briefings are needed.

### 3. Conclusion regarding Hypothesis 3

H3: Job satisfaction has a negative effect on turnover intention

Hypothesis testing conducted proves that there is a negative influence between job satisfaction and turnover intention. This shows that low job satisfaction can increase turnover intention. The lower the employee job satisfaction, the higher the intention to move the employee.

From the research results, it is found that the indicators of satisfaction with promotion have the greatest contribution compared to other indicators on the dimension of turnover intention. By looking at the effect of satisfaction with promotion on the highest intention to move employees, in order to reduce the intention to move employees, a transparent and competency-based promotion system is needed to suppress the intention to move employees.

The existence of a promotion system that is only based on closeness to superiors, the lack of opportunities for employees from internal companies to occupy certain managerial positions or in other words always recruit from external companies to occupy managerial positions and other important positions are things that must be avoided by the taker. decisions within the company in order to suppress the intention to move employees. Besides the satisfaction factor with the promotion, another indicator that follows the company must pay attention to is satisfaction with supervisors or managers, because this indicator contributes a large enough influence on the intention to move employees.

The existence of good support by managers for subordinates, the emergence of a mindset and behavior of managers who are willing to hear suggestions and opinions of subordinates, honest management of employees and also supported by high work motivation, the managers themselves can reduce the intention to move employees. Satisfaction with salary or reward in this study ranks second and last after the indicator of satisfaction with colleagues. This proves that satisfaction with salary is not the main reason for the intention to move marketing personnel to the National Bank of Indonesia

### LIMITATION AND STUDY FORWARD

The limitations of this study include:

1. The study only analyzes the problem of turnover intention from one dimension or one point of view, namely from the perspective of marketing employees only, but does not explore from other perspectives such as bank owners / top management or from the point of view of managers in charge of marketing personnel so that it can be produced. a research result that describes the many dimensions of the factors that cause high intention to move for marketing employees.



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2. This study only analyzes the turnover intention of salespeople in one company (bank) so that it is not sufficient to represent or describe the problem of turnover intention of marketers in one industry, namely the banking sector in general.
3. There is still a lack of a number of variables to describe or predictors of turnover intention. Many other variables can be added to predict the emergence of turnover intention, for example work motivation, leadership style, organizational commitment, role ambiguity, and organizational culture.
4. This study has not analyzed the direct effect between organizational culture and job satisfaction and between organizational culture and turnover intention.

### ACKNOWLEDGEMENT

This study found a structural relationship between organizational culture felt by bank employees and organizational effectiveness variables such as job satisfaction and intention to move jobs at the bank. In the analysis of the effect of organizational culture on job satisfaction and intention to change jobs, rational culture and consensual culture appear to have a greater effect on job satisfaction than other types of culture. In addition, consensual culture has the highest impact on intention to change jobs than other types of culture.

The results of this study may be useful for health administrators who want to reduce the intention to move employees. Increasing employee job satisfaction in the work environment can reduce the intention to move jobs and help ensure a stable and quality workforce. It is especially important that monitoring working conditions and improving organizational climate is likely to improve the quality of banking services by assisting in the retention of qualified employees.

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## ANALYSIS OF POTENTIAL INFORMAL ENTREPRENEURS USING THE FORMALIZATION MODEL

### (Case Study: Informal Sector Entrepreneurs in Palembang City)

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#### ABSTRACT

**Purpose:** This study aims to identify potential informal sector entrepreneurs through the formalization model and explain the reasons for their existence.

**Research Methodology:** The method used is mixed method with quantitative data collection using a survey on 302 respondents who were selected by the Krecjie & Morgan sample technique, while the qualitative data used the indept interview technique on 12 informants who were selected by purposive sampling technique. Survey data analysis used descriptive frequencies, crosstabs and scoring designs, while qualitative data analysis used reduction, display, and conclusion stages.

**Results:** The results of this study indicate that 22 percent of informal sector entrepreneurs in Palembang City belong to the potential informal sector and 78 percent are non-potential. The reasons behind the existence of informal sector businesses in Palembang City are avoiding retribution, limited information, and avoiding more competitive market competition in the formal sector.

**Limitations:** This study uses a unit of analysis for informal business actors in Palembang City. The research location was only conducted in one sub-district in Palembang City. This research lacks information on formalization from the government's perspective.

**Contribution:** The results of this study are able to identify the existence of the potential informal sector, so that it is useful for the government, private sector or business actors in an effort to run targeted empowerment programs in the informal sector.

**Keywords:** *The informal sector, Formalization, Employment.*

## 1. INTRODUCTION

In the era of disruption, job competition is increasingly competitive due to the transformation of companies / industries from conventional to digital. Work that was originally done by humans was replaced by smart machines / technology (Savitri, 2019). In addition, the enactment of the ASEAN Economic Community (MEA) policy has made the flow of mobility of skilled labor, capital and investment higher in the ASEAN region (Armansyah & Aryaningrum, 2017). This condition makes the informal sector again a popular livelihood strategy for people who live in the middle to lower class, especially job seekers who are unable to compete and enter formal employment (Armansyah, Sukamdi, & Pitoyo, 2019).

In some developing countries, the informal sector absorbs more labor than the formal sector, such as in India 73.7 percent; Philippines 66.9 percent; Pakistan 67.1; percent; and Thailand 51.4 percent (Brata, 2010). In the Indonesian context, the absorption of workers in the informal sector also tends to be high. Based on data from BPS Indonesia in August 2017, the number of informal sector workers reached 57.03 percent (BPS, 2017b). The high absorption of labor in the informal sector also occurs at the provincial level in Indonesia, especially South Sumatra Province, where the number of workers in the informal sector reaches 62.4 percent (BPS, 2017a). This data illustrates the enormous potential of the informal sector in absorbing labor, even according to Chirisa (2014) the informal sector is able to accommodate the needs of job seekers in a progressive and positive form.



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Based on developmentalist notions, the informal sector is a type of work that is able to provide life for the middle to lower economic population (Pitoyo, 1999). When the government has not been able to provide decent work, the informal sector is the most rational choice for job seekers. Likewise, during disruption conditions and the current AEC, the informal sector is the alternative work that is most likely to be carried out.

Different from before the disruption era and the MEA, informal sector workers are synonymous with education and low wages (Reich et al., 1973) and subsistence. Currently, the informal sector tends to be in demand by educated workers and includes jobs with high income opportunities. The adaptation of informal workers to technology results in technological innovations in the informal sector, and these innovations have the potential to drive economic growth (Sesay et al., 2018; Pandey & Banwet, 2018; Arshi & Burns, 2019). This innovation makes the income earned by informal sector workers sometimes far exceeding the income earned in the formal sector (Soebyakto & Armansyah, 2016; Armansyah & Aryaningrum, 2017; Armansyah & Mirna, 2018). High income allows informal sector business actors to accumulate capital and then improve their economy, as stated in the neoclassical growth theory model (Muyambiri & Odhiambo, 2018).

Seeing the potential of the informal sector, destructive actions and marginalist views that consider the informal sector unable to develop like the formal sector must begin to be eliminated. Business actors in the informal sector must be noticed and supported, so that they have the ability to develop and be competitive or even become part of a development program (Papola, 1980). This effort can also be an application of the rights of the lower middle class as contained in the 1945 Indonesian Constitution, Article 34 which reads "The poor and neglected children are cared for by the state". Based on the description of the article, one of the rights possessed by the lower middle class is to get a job and business opportunities (Hutomo, 2018).

Various intervention efforts on informal sector workers have been carried out, such as restructuring the built environment (McGee, 2002), the 'Zero Tolerance' policy on informal activities (Saitta, 2013; Barsoum, 2016), integration of informal workers into formal institutions (Aparcana, 2017), improve services for informal sector workers by utilizing corporate CSR (Ramdan, 2012), and so on. The interventions carried out have an impact on the transition of characteristics of informal sector entrepreneurs, either directly or indirectly. This transitional process is then used as the basis for a research entitled "Analysis of Potential Informal Sector Business Actors through the Formalization Model (Case Study: Informal Sector Business Actors in Palembang City)". In the context of this research, the process of transitioning the characteristics of the informal sector is called formalization, which is then divided into three stages (informal, transitional, and formal stages) by calculating the total score.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Informal Sector Development

The informal sector in Indonesia is estimated to have existed since 1724, this information is obtained from the results of a study by Bappeda Kota Pontianak (2007) in (Bappenas, 2009). At that time, the informal sector was in the form of mobile traders and hawkers selling vegetables, cloth, porcelain, handicrafts, tea, bread, drinking water and others. During the 1998 crisis, the informal sector became the alternative work most often done by victims of layoffs and unemployment (Pitoyo, 1999). Even in the 1998-2006 period, BPS noted that the number of informal sector workers was more than 57 percent or close to 60 percent (Brata, 2010). This figure continued until August 2017, with a total of 57.03 percent. This means that labor issues in Indonesia are still discussed by the large number of informal sector workers and the limited number of formal employment opportunities.



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There have been many policies related to the existence of the informal sector, both supportive and eradicating in nature. Several policies that support such as improving services for informal sector workers through CSR (Ramdan, 2012), relocation and arrangement of informal sector workers (Brotosunaryo & Wahyono, 2013) and (Wildaniyati, 2016), while those that are eradicating, such as illegal punggutan (Roever, 2016), evictions (Rukmana, 2009; Chirisa, 2014), and so on.

### Formalization of the Informal Sector

Formalization comes from the word 'formal' which means official. In the context of this research, formalization is a process of transitioning the characteristics of informal business actors from informal to formal. Formalization can also be interpreted as a process carried out on something so that it runs according to the prescribed rules (Rahmatunnair, 2012). Formalization efforts can be carried out in two ways, namely: 1) changing the characteristics of the informal sector to formal; 2) ending or eradicating informal sector practices (Smart & Smart, 2017).

Formalization is assumed to bring benefits to informal sector entrepreneurs. Business actors who carry out their activities formally will find it easier to get access to social services and facilities as well as capital assistance from the government / private sector. In addition, informal business actors who have undergone a formalization process will receive increased workers' rights, such as: civil, political and social rights (Olmedo & Murray, 2002).

In the context of this research, formalization is the change in the characteristics of informal business actors from informal to formal. These changes are identified through the formalization stages that have been designed by the researcher based on the scoring method. The formalization stages are made based on Lewis's economic growth theory (Todaro & Smith, 2011), which states that there is a process of change from a traditional economic sector to a modern economic sector.

### 3. RESEARCH METHODOLOGY

The research method used is mixed methods, with a sequential explanatory model, this model is used sequentially, with the collection and analysis of quantitative data in the first stage, and the collection and analysis of qualitative data in the second stage (Sugiyono, 2016). The quantitative method is used to obtain data and information related to changes in the characteristics of informal business actors to become formal, while the qualitative method aims to explore the opinions and reasons for the existence of an informal sector at the formalization stage.

Collecting quantitative data using a survey technique which was conducted on 302 respondents. Determination of respondents using the Krecjie & Morgan table. Based on the Krejcie & Morgan table, if the research population is more than 100,000, then the sample is 384 (Pitoyo, Eddy, Pande, & Sumini, 2017), thus from the research population of 1,498 people, the sample was 302 people. Meanwhile, to determine qualitative research informants using purposive sampling technique, using special criteria. This study used 12 informants who are informal sector entrepreneurs in Palembang City. Quantitative data analysis used descriptive frequency and crosstabs. The formalization stages are made based on scoring with the following guidelines:

**Table 1. Classification of Formalization Stages**

Dimensi	Variabel	Klasifikasi	Label	Skor
Law	1) Business license; 2) certificate; 3) work standards; 4) retribution; 5) legality of business location; and 6) security.	Rank 1	Informal	0
		Rank 2	Transisi	1-3
		Rank 3	Formal	$\geq 4$
Social	1) Education level; 2) skills; 3) sources of skills; 4) social security; and 5) access to banking.	Rank 1	Infomal	0
		Rank 2	Transisi	1-3
		Rank 3	Formal	$\geq 4$



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Economic	1) Total capital; 2) sources of capital; 3) capital loan; 4) source of raw materials; 5) income; 6) savings; 7) investment; 8) form of business place; and 9) the status of the place of business.	Rank 1	Informal	0
		Rank 2	Transisi	1-4
		Rank 3	Formal	≥ 5
Management	1) Planning; 2) work consultation; 3) bookkeeping; 4) stock items; 5) quality of goods; 6) cooperation with other sectors; 7) use of technology; 8) marketing media; 9) marketing targets; and 10) evaluation.	Rank 1	Informal	0
		Rank 2	Transisi	1-5
		Rank 3	Formal	≥ 6
Employment	1) Number of workers; 2) recruitment system; 3) employment status; 4) relations with workers; and 5) workers wage payment system	Rank 1	Informal	0
		Rank 2	Transisi	1-3
		Rank 3	Formal	≥ 4
Formalization Stages	Combination of variable dimensions of legal, social, economic, management, and employment.	Rank 1	Informal	≤ 10
		Rank 2	Transisi	11-20
		Rank 3	Formal	≥ 21

Source: Researcher, 2019

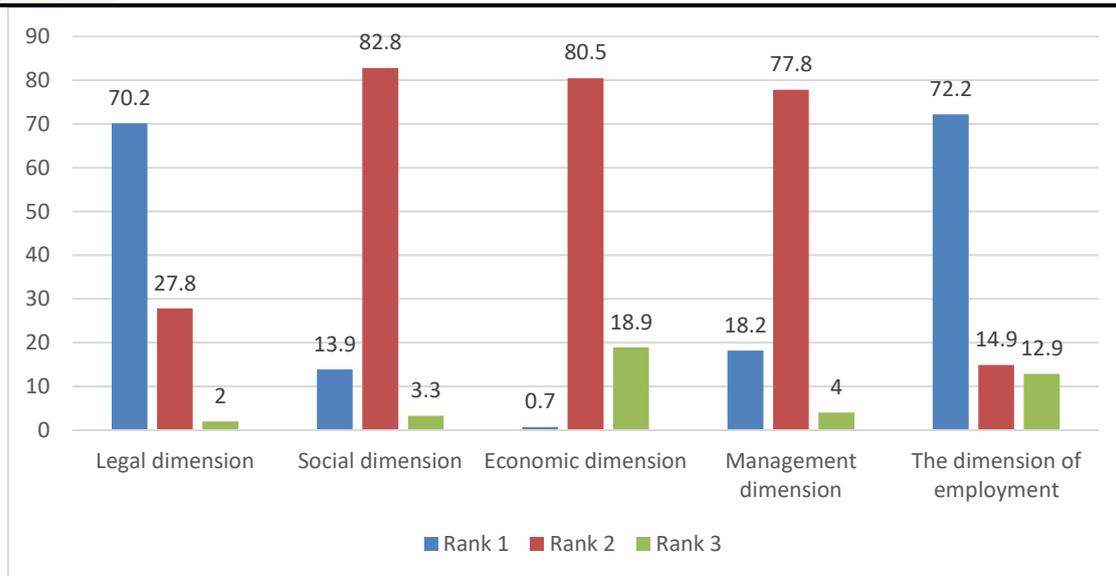
Based on table 1, it can be identified the position of informal sector business actors in the predetermined stages of formalization, whether it is included in the informal, transitional, and formal stages. Furthermore, qualitative data analysis was carried out using reduction, display, and conclusion Creswell (2016). Then the data is presented in the form of descriptions, tables, pie charts, theoretical dialogues and some interview quotes.

#### 4. RESULTS AND DISCUSSIONS

##### **Classification of The Stages of Formalization of The Informal Sector and Identification of Potential Informal Sectors**

Based on the results of the frequency table analysis using the SPSS program, it shows that in the legal, social, economic, management and employment dimensions there is a formalization process for informal sector business actors. This is indicated by the presence of informal sector business actors who are in the transitional and formal stages. This means that the informal sector entrepreneurs in Palembang City are not entirely informal but have shifted to a formal characteristic through the transition process (formalization).

Partially, in the social, economic and management dimensions, informal sector entrepreneurs who are in rank 2 (transition stage) have a greater percentage than rank 1 (formal stage). For example, in the social dimension 82.8 percent of informal sector entrepreneurs are at the transitional stage and 3.3 percent are formal. In the economic dimension 80.5 percent is at the transitional stage and 18.9 percent is formal. Even in the economic dimension, business actors who are at the informal stage have the lowest percentage (0.7 percent). Meanwhile, in the management dimension 77.8 percent of informal sector business actors are in the transitional stage and 4 percent are formal.

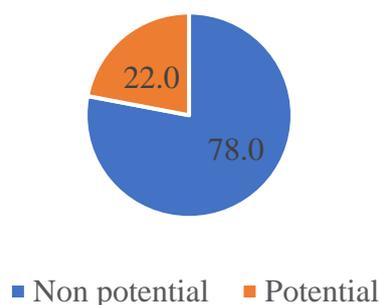


**Figure 1. Percentage of Informal Sector Business Actors Based on Classification in Each Dimension**

Source: Primary Data, 2019

Meanwhile, in the legal dimension, there are 27.8 percent of informal sector business actors who are in the transitional stage and 2 percent are formal, and in the labor dimension, 14.9 percent are at the transition stage and 12.9 percent are formal. In the legal and labor dimensions, the number of informal sector entrepreneurs who are at the informal stage is still more than at the transitional and formal stages. However, in general the results of this study indicate that the informal sector business actors in Palembang City have undergone a formalization process through a characteristic transition from informal-formal.

From the formalization stage it can be concluded that the transitional and formal stages constitute the 'potential informal sector' group. In general, there are 22 percent potential informal sector business actors and 78 percent non-potential. This means that informal sector business actors who are already in the transition and formal stages have a greater opportunity to transform into formal business actors.



**Figure 2. Potential and Non-Potential Informal Sector Business Actors**

Source: Primary Data Processing, 2019

Most of the business actors who are included in the potential informal sector group have run their businesses such as the formal sector, such as having business permits, paying levies, having access to loans to banks, have the ability to save and invest, have high education, have an income that exceeds the city minimum wage / province, have work standards, bookkeeping, marketing media, marketing targets, have employees, and so on.



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There is a tendency for informal sector businesses in Palembang City to be in demand by educated workers (SMA and above) (58.3 percent). Thus, educated informal sector business actors are expected to be able to increase the informal sector to become more potential, because according to Malthus in (Samet, Yahyaoui, Saidi, & Saggaf, 2019) increasing education will create a certain maturity and awareness in educated humans. The same case was found in PKL in Yogyakarta, where Brata (2010), through his research revealed that of the majority of PKL, only 11.5 percent did not have formal education. Not only in Indonesia, but even in Egypt there are many educated workers who enter informal jobs (Barsoum, 2016). In addition, the opportunity to earn high income also provides the ability of informal sector entrepreneurs to develop financial management which has an impact on their ability to save (Adioetomo, et al: Kuncoro & Harmadi, 2016), so that in the end it will lead to the ability to invest (Muyambiri & Odhiambo, 2018 ).

Furthermore, the findings of this study indicate that the use of technology and marketing media in informal sector entrepreneurs in Palembang City is still low, where only 9.9 percent of informal business operators use technology. The technology referred to is the use of smartphones, the internet or other simple technology. Likewise with marketing media, the results of this study show that there are only 16.6 percent of informal sector business actors who use marketing media such as social media, Facebook, Instagram, or market places in marketing their products. Even though Nafziger (1997) in (Seran, 2019) revealed from the results of his study that technological factors were able to contribute between 10 and 50 percent of economic growth.

Adaptation of informal sector entrepreneurs to technology can actually be done by establishing partners through the Gojek, Grab, Tokopedia or other applications to expand the marketing area from offline to online. However, all of that returns to the respective business actors, because the methods and requirements for partnering with online applications are very easy and simple. Nevertheless, the existence of informal sector business actors who have used technology and marketing media really needs to be appreciated and improved. These findings generally show that the adaptation of informal sector business actors in the era of disruption is still low, so that more intensive guidance and training is needed so that informal sector entrepreneurs can take advantage and benefit from the era of disruption.

### **Reasons for Doing Business in the Informal Sector**

Based on information provided by several informal business actors in Palembang City, the reasons for doing informal work include: 1) Avoiding levies and taxes; 2) Limited information; and 3) Avoiding competitive job competition, here is the description.

#### **Avoiding levies and taxes**

One of the reasons for business actors to carry out informal jobs is to avoid retribution fees that must be incurred when the business becomes formal, such as; cleaning costs, water, electricity, security and so on. Retribution has an impact on increasing the amount of expenditure that is burdensome for informal business actors, because the income earned by informal business actors is uncertain (Wildaniyati, 2016). Several informants stated that with unstable income conditions they found it difficult to fulfill these obligations.

“The income I get from my business results is not stable. Therefore, I have not thought about how to apply for a business license, because it costs money to take care of a business license”(I\_01-2019).

Based on information from I\_01-2019, let alone paying retribution, even preparing money for processing a business license cannot afford it, whereas according to I\_02-2019, the reason for running a business informally is because it avoids paying taxes, along with an interview quote.



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"I don't have a plan to register a business yet, because if the business is registered, I have to pay taxes" (I\_02-2019).

Based on information from I\_02-2019, he stated that he had no plans to register a business. Because, once registered he has to pay taxes. Information from these two informants indicates that most informal sector entrepreneurs in Palembang City are still at the informal stage because they avoid the fees that are generated when their business is registered. Informal sector entrepreneurs in Palembang City still think that the taxes that must be issued are burdensome (Barsoum, 2016). This is because the stability of the income earned is not yet at a safe point. In fact, one of the requirements to take care of business administration, including loans in banks, is business stability (Ritonga & Sari, 2015). Therefore, informal sector entrepreneurs in Palembang City do not yet have a plan to formalize their business if the business conditions they are doing are not yet stable.

### Information Limitations

Even though socialization media has spread massively in online and offline systems, however, the information or knowledge of informal sector entrepreneurs about the mechanism for registering a business is still very low. Informal sector entrepreneurs in Palembang City still have low knowledge regarding how to register their business, including what benefits or benefits will be obtained when the business is registered.

"I don't understand how to register a business, if I have obtained information about these things, I probably have the intention to register a business" (I\_03-2019), the same information was also stated by I\_03-2019.

"What are the benefits of registering a business? I don't know, what I know is that if I have registered I have to pay taxes, and I can't afford it". (I\_05-2019).

Based on the statements of the two informants above, the level of knowledge of informal sector entrepreneurs in Palembang City about business registration mechanisms is still very low. This finding strengthens the reason that most of the informal sector entrepreneurs in Palembang City are still at the informal stage. This finding is in fact somewhat contradicting the characteristics of the educational level of informal sector entrepreneurs in Palembang City. This is because the findings on the education level indicator show that most informal sector entrepreneurs in Palembang City have higher education, however, their level of knowledge regarding information on business registration mechanisms is still low. The same case also occurs in the level of knowledge of informal sector workers about the AEC. According to Armansyah & Aryaningrum (2017), 94 percent of informal sector workers in Palembang City do not know information about the ASEAN Economic Community. This means that there are other indications that can be learned from these findings, where informal sector entrepreneurs in Palembang City have low reading interest or curiosity, however, this statement needs to be followed up with further research. Pragmatically, it can be justified because the busyness of running informal businesses with unstable income and time can be the reason for the limited reading time of informal sector entrepreneurs in Palembang City.

### Avoiding Competitive Job Competition

The larger the scale of the business being carried out, the higher the level of competition will be. Based on the statements of several informants, most of the informal sector business actors in Palembang City are still at the informal stage due to avoiding more competitive work competition. The research findings on the work standard indicator amounted to 3.3 percent, which means that only 3.3 percent of informal sector business actors have working standards, such as the use of gloves, masks, and others. Even then, it does not yet have a standard set by an official institution, meaning that it is only improvisation by informal sector business actors, while 96.7 percent do not have a work standard.



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This finding illustrates the low ability of informal sector entrepreneurs in Palembang City to compete with formal entrepreneurs when viewed from work standards. Therefore, it is rational if the informal sector business actors in Palembang City still choose to run their business informally, because the scale of competition in the informal sector is not as competitive as in the formal sector.

"I am comfortable with the business that is being carried out at this time, because if it is registered it requires a large fee" (I\_02-2019).

The informant above stated that he was comfortable working in informal conditions, because in addition to avoiding large fees when a business was registered, he also felt comfortable because he had regular customers who would continue to be a source of income. Some informants are aware that the quality of the goods they sell is modest, so they are considered less able to compete if they are marketed on a larger market scale, while in the formal market, competition will be more competitive, both in terms of products, human resources, and quality. Because, the better the human quality, the better the business management that is carried out (Safkaur & Sagrim, 2019).

"I run a small business. I don't know how to increase my business yet. So, for the time being, I can only run my existing business" (I\_06-2019).

That is the statement from I\_06-2019, He stated that it is better to run an existing business with a makeshift condition, because, he does not know how to increase his business. The statements of several informants again reinforce why most of the informal sector entrepreneurs in Palembang City are still at the informal stage.

### 5. CONCLUSION

Based on the model of the formalization stages of the informal sector, 22 percent of informal sector business actors in Palembang City are classified into the potential informal sector and 78 percent are non-potential. The reason for the existence of informal sector businesses in Palembang City is because informal sector business actors have the perception of avoiding retribution that will be generated if the business is registered, such as taxes, cleaning, security, and others. Another reason is due to the lack of information and knowledge regarding the business registration mechanism and avoiding more competitive market competition.

The government must increase the socialization and promotion of business registration mechanisms. In addition, it is necessary to convey the benefits and benefits that will be obtained if the business is registered. Training programs, capital assistance, sustainable mentoring are still recommended programs to empower informal sector entrepreneurs. Future researchers are expected to be able to examine efforts to improve informal sector businesses so that they have the potential to become formal.

### LIMITATION AND STUDY FORWARD

This research has several weaknesses, including: 1) This research does not explore formalization information from the government's perspective. Therefore, it is hoped that further researchers will be able to involve the government in answering the formalization problems of the informal sector; 2) The research location was only conducted in one district. Therefore, further researchers should take samples from each sub-district in Palembang City. 3) The business actors involved in this research are all informal. Therefore, further researchers are expected to involve formal business actors to explain the formalization process that has occurred.



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## INVESTMENT DECISION, FUNDING DECISION, DIVIDEND POLICY AND FIRM VALUE IN INDONESIAN BANK

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### Abstract

The purpose of this study is to prove whether investment decisions, funding decisions, dividend policies affect firm value. eight banks listed on the Indonesian stock exchange were used as research samples. Structured Equation Modeling is used in analyzing research data. The results showed that investment decisions and dividend policy had a significant positive effect on firm value, while funding decisions had no significant effect on firm value. The limitation of this study is that the data used is still small. This research can be used as a reference for further research related to financial decisions and firm value.

**Keywords:** *Investment Decision, Funding Decision, Dividend Policy, Firm Value*

### 1. INTRODUCTION

The development of the Indonesian banking world continues to experience erratic changes. Deposit Insurance Agency (OJ) noted that bank lending in 2019 experienced a slowdown with the growth of 6.08% or decreased compared to 2018 which grew by 11.7%. This is due to the high-interest rates in 2018 and the economic slowdown due to the trade war.

Rachmawati (2006) states that trust in the banking sector has experienced ups and downs, starting during the economic crisis in 1997-1998 where many banks experienced bankruptcy due to an unfavorable economic situation that made people not trust to save their funds in the banking sector. This led several banks to merge with other banks to overcome these problems, such as the merger of Bank Bumi Daya, Bank Dagang Negara, Bank Export-Import Indonesia, Bank Pembangunan Indonesia merged into Bank Mandiri in July 1999.

The publication issued by the LPS explains that the public began to trust Indonesian banking again after the crisis that hit in 1997-1998. This public trust is formed due to the guarantee of customer deposits with the establishment of the LPS on September 22, 2005, where people feel confident about the funds they deposit in the bank. The trust that has been formed was once again disturbed when the world economy was hit by the economic crisis in 2008 which started in Greece, which also affected the economy in Indonesia, where Century Bank on November 13, 2008, experienced a clearing failure, causing massive withdrawals of funds owned by customers or better known as rush, caused Bank Indonesia to establish Century bank as a failed bank because Century bank had a Capital Adequacy Ratio (CAR) of minus 3.52 percent. This can have a negative impact on public confidence in the performance of banks in Indonesia.

Loans disbursed to the public are expected to eventually increase the profit generated by the company so that it can provide an alternative for Bank management to expand the Bank they manage through various alternative investment options and can generate high dividends for shareholders. The high share dividend distribution is an indicator of the success of management in managing the assets entrusted by the owners to them.

Darmawati (2005) states that agency theory assumes that all individuals act on their interests. Shareholders as principals are assumed to be only interested in increasing financial results or their investment in the company. Meanwhile, agents are assumed to receive satisfaction in the form of financial compensation and the conditions that accompany the relationship.



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In agency theory, bank management will take maximum action to get high profits to provide high dividends to shareholders. The right investment made by management is the right start in getting a good profit for the company. Management must also pay attention to the source of funding to be used so that management will not experience problems in its operational implementation

Wahyudi and Pawestri (2006) reveal that managers as agents will try to increase their company value as a long-term goal to be achieved. Where according to Fama (1978) the value of the company can be seen through its share price. Hasnawati (2005) describes stock prices in the capital market formed based on an agreement between investor demand and supply so that the stock price is a fair price that can be used as a proxy for firm value.

Optimization of company value can be achieved through the implementation of the financial management function, where one financial decision is taken will affect other financial decisions and have an impact on company value (Fama, 1978). Financial management involves the settlement of important decisions taken by companies, including investment decisions and funding decisions maximizing the results to be achieved must be decided carefully by the manager to increase the company's value to the maximum

According to Lihan et al (2010), capital investment is one of the main aspects of investment decisions in addition to determining the composition of assets. The decision to allocate capital to investment proposals must be evaluated and linked to the risks and expected returns. According to the signaling theory, expressed by Wahyudi and Pawestri (2006) investment spending provides a positive signal about the company's future growth, so that it can increase the stock price which is used as an indicator of company value.

Lihan et al (2010) explain that decisions concerning investment will determine the source and form of funds for financing. Problems that must be answered in funding decisions related to the source of funds are whether the source is internal or external, the amount of debt and equity itself, and how the type of debt and capital will be used, considering that the financing structure will determine the cost of capital which will be the basis for determining the required return. which are desired.

According to Prihantoro (2003), investors have the main objective to improve welfare by expecting returns in the form of dividends and capital gains, while companies expect continuous growth to maintain their survival while providing welfare to their shareholders, so dividend policy is important to meet the expectations of shareholders. shares against dividends by not hindering the company's growth on the other. Dividends received at this time will have a higher value than the capital gains that will be received in the future, so investors who are not willing to speculate will prefer dividends over capital gains.

Financial leverage describes the use of debt in the company's operations. Research related to financial leverage, among others, has been conducted by Pasternack & Rosenberg (2003) which in their research found that leverage has a negative and significant effect on incentives, leverage has a positive but not significant effect on investment, and leverage has a negative but insignificant effect on firm value (Tobin's Q).

Anuchitworawong (2004) conducted a study in Thailand by comparing two periods, namely the period after the crisis in 2000 and the period before the crisis in 1996. The findings were that after the crisis period, leverage had a negative and significant effect on company performance (ROA), and before the crisis period. The crisis shows that leverage has a negative but insignificant effect on company performance (ROA). The results of this study are consistent with the results of the research found by Aivazian et al (2005) who found that leverage has a negative and significant effect on investment. In contrast to the results obtained by Uchida (2006) in his research, he found that leverage (debt) has a positive and significant effect on firm value (Tobin's Q).



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Research related to investment (capital expenditure) has also been carried out, including by Aggarwal, et al (2003). The results of his research found a positive influence on investment and company performance. In contrast to the results of research conducted by Pasternack & Rosenberg (2003) in their research, they found (a) investment has a negative but insignificant effect on incentives, (b) investment affects Tobin's Q, (c) investment has a positive and significant effect, (d) leverage-positive but not significant effect on investment. The research of Yeh et al (2008) shows that firm equity investment decisions have a negative effect on firm value. Research conducted by Hutchinson and Gul (2004) shows that investment decisions proxied by IOS have a negative and significant effect on firm performance proxied by ROI.

Many company values with various approaches have been carried out, including McConnell & Servaes (1990), Biddle, Bauen, and Wallace (1996), Stulz (2000), Syahib (2000), Pasternack & Rosenberg (2003), Aivazian, et al (2005). ), and Uchida (2006).

The company's internal factors in the capital market analysis are often referred to as the company's fundamental factors, these factors are controllable so that the company can control them. The company's internal factors can be grouped into company policy factors and company performance factors. The company policy factors in this study emphasize financial management policies, which include investment policies and funding policies (Weston and Copeland, 1992). Funding policies are proxied by financial leverage and investment policies are proxied by the investment opportunity set, and dividend policies are proxied by the Dividend Payout Ratio. and Dividend Yield Ratio

Banking is an industry that has different characteristics from other industries. Banking is an industry that is full of various regulations. Nasution and Setiawan (2007) state that banks are required to meet the minimum CAR criteria set by Bank Indonesia whether a bank is healthy or not. Banking is a "trust" industry, where if investors lose confidence in the bank's performance, they will withdraw funds together which can cause a rush. Iman and Hartono (2006) state that banking is currently experiencing changes both in terms of competition and regulations that force it to adapt to this new environment.

Company policy regarding financial decisions taken by the company will determine the value of the company. In the banking sector, every financial decision taken by managers is focused on improving company performance to produce a good performance, so that this achievement is expected to increase investor confidence to increase company value. The purpose of this study is to prove whether investment decisions, funding decisions, dividend policies affect firm value

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Signaling Theory

Myers and Mjuf (1984) suggest that companies with large leverage can be used by managers as an optimistic signal for the company's future. This signaling theory arises because of the problem of information asymmetry. Due to the asymmetric condition of information from time to time, companies must maintain loan reserve capacity by keeping loan rates low. The existence of these reserves allows managers to take advantage of investment opportunities without having to sell shares at low prices. Thus, it will send signals that affect the stock price

The signaling model developed is a combination of investment decisions, funding decisions, and dividend policies. Managers are better than anyone, assumed to know the "true" value of the company in the future. Besides, managers are also assumed to act by the interests of the old shareholders, namely people owning shares in the company when decisions are made. These old shareholders are also assumed to be passive or do nothing to change their portfolio

According to Wolk, et al. (2001) signal theory explains the reasons firms present information to the capital market. Signal theory shows the existence of information asymmetry between company



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management and the parties with an interest in the information. Signal theory suggests how companies should provide signals to users of financial statements

In this theory, banking managers are required to make the right financial decisions in terms of investment decisions, funding policies, and dividend policies. These policies will provide positive signals to investors that the company will provide promising returns in the future

### **Investment Decision, Funding Decision, Dividend Policy, and Firm Value**

Management is an agent that is trusted by the owners of capital to run the company's operations. Agency theory states that management runs company operations by expecting maximum compensation from the results they have done. The success of managers in managing the company stems from precisely the decisions made by these managers. The decisions taken are how the company's operations are funded and how the investments are made by management to get maximum profit.

Investment decisions and funding decisions made by management will affect the value of the companies they lead. The results of research conducted by Wahyudi and Pawestri (2006), Haruman (2008) and Lihan, Bandi and Wibawa (2010) indicate that funding decisions made by companies proxied by the Debt Equity Ratio (DER) affect firm value, which in this study This shows that the funding made by management in the company's operations has a role in increasing the value of the company. Increased funding by management provides a signal to investors that the company is in good shape if the amount of funding made is still within reasonable limits.

Banking management is also required to be able to invest the customer funds they collect, customer funds in the bank will then be channeled back to the public in the form of credit, and will be used by management to expand through investing both in capital investment and investing in opening new branches. The investment made is expected to be able to increase the company's income which in turn will attract investors to invest in the bank.

Research on the effect of investment decisions has been conducted by several researchers such as Lihan, Bandi, and Wibawa (2010), Rachmawati, and Triatmoko (2007) showing that investment decisions are made by management have a positive and significant effect on firm value. This investment decision gives a signal to investors that the company is in a state of expansion to increase revenue in the future. The resulting investment decisions will increase the assets (Asset Growth) owned by the company (Cooper et al, 2008) wherein their research shows that investment decisions explained through asset growth affect the company's stock price. This investment decision causes investors to be interested in joining the company, where investors will buy shares which will indirectly increase the market value of the shares and the value of the company.

Based on the theoretical basis, the hypothesis proposed by the author is as follows

Hypothesis 1: Investment decisions have a positive effect on firm value

Hypothesis 2: Funding decisions have a negative effect on firm value

Hypothesis 3: Dividend policy has a positive effect on firm value

### **3. RESEARCH METHODOLOGY**

The research to be carried out will examine the effect of financial decisions on firm value in banks listed on the Indonesia Stock Exchange in 2015–2019

#### **Population and Sample**

The population used in this study are all banking companies listed on the Indonesia Stock Exchange from January 2015 to December 2019. The population used in this study are banks because banks have a high risk inherent in the industry concerned (Jensen and Meckling, 1976) so that management will think carefully about investment decisions, funding, and dividend policies to be made



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The population of this study amounted to 45 banks that have been listed on the IDX, consisting of banks owned by the central government (BUMN), banks owned by local governments (BUMD), and banks owned by national and international private companies.

The sample used was started in 2015, because based on the sampling results, the largest sample that can be used was started in 2015. The sampling technique used is to use the purposive sampling method with the following conditions:

1. Bank who have gone public from 2015 to 2019
2. Bank that successively publishes their annual financial reports from 2015 to 2019 on the official website of Bank Indonesia, the official website of the Indonesia Stock Exchange, and the official website of each bank
3. Banks that distribute dividends consecutively every year starting from 2015 to 2019 based on the above criteria, 8 banks meet the requirements

### The operational definition of a variable

#### Investment Decision

Investment decisions are defined as a combination of assets in place and investment choices in the future with a positive net present value (Myers, 1977). IOS cannot be observed directly (latent), so the calculation uses a proxy (Kallapur and Trombley, 1999). The IOS proxy used in this study is Asset Growth (AssetG). Asset growth in this study is measured using the percentage increase or decrease in assets from one period to the next

$$\text{AssetGt} = \frac{\text{Asset } t - \text{Asset } t - 1}{\text{Asset } t - 1}$$

In addition to using asset growth, in this study, to proxies investment decisions, market capitalization variables are used.

$$\text{Market Capitalization} = \text{Total Outstanding Stock} \times \text{Stock Price}$$

#### Funding Decision

A funding decision is defined as a decision regarding the composition of funding chosen by the company (Hasnawati, 2005). The funding decision in this study is confirmed through the Debt to Equity Ratio (DER). This ratio shows the comparison between financing and financing through debt with funding through equity (Brigham and Houston, 2001).

DER has been used and can consistently be used as a proxy for funding decisions made by companies such as research conducted by Lihan, Bandi, and Wibawa (2010) and Wahyudi and Pawestri (2006).

$$\text{DERt} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

In addition to using DER as a proxy for funding decisions, this study also uses the Debt to Asset Ratio (DAR). This ratio shows the comparison between financing and financing through debt with funding through assets owned by the company (Brigham and Houston, 2001)

$$\text{DARt} = \frac{\text{Total Liabilities}}{\text{Total Asset}}$$

#### Dividend Policy

Dividend policy decisions are decisions about how much current profit will be paid out as dividends rather than being held to be reinvested in the company (Brigham and Houston, 2001). The dividend policy used in this study will be proxied by the dividend payout ratio (DPR). This ratio shows how much the ratio of payments received by shareholders for dividends to be distributed. The magnitude of this ratio can be a signal to shareholders and investors that the company is in good shape.

$$\text{DPRt} = \frac{\text{Total Dividend}}{\text{Total Share}}$$



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Apart from using the dividend payout ratio in proxies for dividend policy, this study also uses the Dividend Yield Ratio (DYR). According to Brigham and Houston (2001), the dividend payout ratio is the percentage of profit paid to shareholders in cash.

$$DYR_t = \frac{\text{Dividend Per Share}}{\text{Earning Per Share}}$$

### Firm Value

Firm value in this study is defined as a market value because the firm value can provide maximum prosperity for shareholders if the company's stock price increases (Hasnawati, 2005). The firm value in this study was confirmed through the Price Book Value (PBV). PBV measures the value that financial markets provide to corporate management and organizations as a company that continues to grow (Brigham and Houston, 2001).

$$PBV = \frac{\text{Stock Price}}{\text{Book Value}}$$

Tobin's Q value is also used to proximate firm value. Where to find the Tobin Q value is as follows

$$\text{Tobin Q} = \frac{\text{Markey Capitalization} + \text{Total Debt}}{\text{Total Assets}}$$

### Data analysis technique

This study was analyzed using the structured equation modeling (SEM) method using a variant approach using the Partial Least Square (PLS) technique, where this approach is suitable for predictive research (Ghozali, 2008) which is by the purpose of this study, namely predicting whether investment decisions, funding decisions, and dividend policies affect firm value.

The use of the Partial Least Square method is also based on the limited number of samples owned and the ability of PLS to analyze data that are not normally distributed, as expressed by Wold in Ghozali (2008) which states that PLS is a good method of analysis because it is not based lots of assumptions. The data does not have to have a normal multivariate distribution (indicators with a category scale, ordinal, interval to ratio can be used in the same model) and the sample used does not have to be large.

The parameter estimates obtained by PLS can be categorized into three parts. The first category is the weight estimate that is used to create a score for the latent variable. The second reflects the path estimate (path estimate) that connects the latent variable with the latent variable and its indicator block (loading), the third category is related to the means and location of the parameters (regression constant values) for indicators and latent variables, which in the first stage produces a weight estimate. , in the second stage, it produces an estimate for the inner model and outer model, and in the third stage, it produces a means estimate.

To evaluate the model used, the measurement model (outer model) is evaluated using formative indicators with the validity test of using. The structural model (inner model) is evaluated by looking at the percentage of variance described by looking at the R<sup>2</sup> value for the dependent latent construct.

**Table 1 - model evaluation criteria**

Evaluation	Criteria
Measurement Model Construct Validity Test - Convergent Validity Loading Factor	The loading factor value must be above 0.7



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<i>Average Variance Extracted</i>	The AVE value must be above 0,5
- Reliability Test	The Cronbach Alpha Value must be above 0,7
Structural Model <i>R Square</i>	R Square value must be above 0,5
Hypothesis Test	Testing by comparing the calculated t value obtained from the t value of the inner model compared to the t table value with an alpha of 5%

#### 4. RESULTS AND DISCUSSIONS

##### Measurement Model Test (Outer Model)

This test is conducted to determine construct variables that can reflect the latent variables used in this study. According to Ghozali (2008) measurement models can be tested using the loading factor of the resulting outer loadings, where a constructed variable can be used if it has a loading value greater than 0.7. The results of the loading factor test can be seen in the table below

**Table 2 – Outer Loading**

	<b>Dividend Policy</b>	<b>Firm Value</b>	<b>Funding Decision</b>	<b>Investment Decision</b>
<b>ASSET GROWTH</b>				0,796199
<b>DAR</b>			0,942558	
<b>DER</b>			0,965514	
<b>DPR</b>	0,934091			
<b>DYR</b>	0,938844			
<b>PBV</b>		0,966906		
<b>Market Capitalization</b>				0,955583
<b>TOBIN</b>		0,978082		

Based on the outer loading above, all the construct variable indicators meet all the specified criteria

Furthermore, to measure the model used the Discriminant Validity method using the Average Variance Extracted (AVE) value where a good model is a model that has an AVE value of more than 0.5, wherefrom the calculation results the AVE value is obtained as follows



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**Table 3 – Average Variance Extracted**

	AVE
Investment Decision	0,5796
Funding Decision	0,9103
Dividend Policy	0,8769

Based on the results of processed data, it is found that the AVE values obtained for the proposed measurement model are 0.5796, 0.9103, and 0.8769 or greater than 0.5 so that it can be said that the measurement model used has passed the discriminant validity test.

Reliability test is used to measure the internal consistency of measuring instruments used, reliability shows the accuracy, consistency, and accuracy of a measuring instrument in making measurements. The reliability test is carried out using the Cronbach alpha value, where the model is said to have a good measuring instrument if the Cronbach alpha value is greater than 0.7. The results of the test are as follows

**Table 4 – Cronbach Alpha**

	Cronbach's Alpha
Investment Decision	0,7320
Funding Decision	0,9029
Dividend Policy	0,8597

Based on the results of the above calculations, the Cronbach Alpha value is above 0.7, this indicates that the measuring instrument used in this study shows accuracy, consistency, and accuracy in explaining the research phenomenon.

### **Structural Model Test (Inner Model)**

Next is to see whether the model used has a good goodness-fit, which means whether the variability of firm value can be explained properly by each of the latent variables, namely financial decisions and banking health ratios by looking at the R square value, where a good R square value is above 0.5 or able to explain endogenous variables by 50%. The results of calculations using SmartPLS show that the R square value is as follows

**Table 5 – R Square**

	R Square
Firm Value	0,5895



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Based on the results of the resulting calculations, it is found that the R square value for the latent variable of financial decisions is 0.5895 or the latent variable of investment decisions, funding decisions and dividend policies can explain the firm value of 58.95%.

### Hypothesis Test

Testing the research hypothesis proposed by the author, then the test will be used using the t-test, where the t value obtained from the research results will be compared with the t-table. Where the t value is obtained from the inner model t statistic, where the results are as follows:

**Table 6 – Inner Model t Statistic**

	<b>Firm Value</b>
<b>Dividend Policy</b>	2,38
<b>Funding Decision</b>	1,11
<b>Investment Decision</b>	4,43

With the number of samples used is as many as 40 samples, the value for t table is 1.90 so that for (Ha1) which states that investment decisions have a positive effect on firm value, where the t-count value of 4.43 is greater than the t-table which is 1.90, then the hypothesis put forward by the author which states that financial decisions affect firm value is accepted.

The second research hypothesis (Ha2) which states that funding decisions have an effect on company value with a t-count value of 1.11 smaller than t table of 1.90, so the hypothesis proposed by the author which states that funding decisions affect firm value cannot be accepted empirically

The third research hypothesis (H3a3) which states that dividend policy has a significant positive effect on firm value with a t-value of 2.38 greater than the t-table value of 1.90, so the hypothesis can be accepted empirically.

### Path Coefficient

In this path analysis, the path coefficients for each exogenous latent variable (financial decisions, financial decisions, and dividend policies) will be tested against endogenous variables (firm value).

**Table 7 – Path Coefficient**

	<b>Original Sample (O)</b>	<b>Standard Deviation (STDEV)</b>	<b>Standard Error (STERR)</b>	<b>T Statistics ( O/STERR )</b>
<b>Dividend Policy -&gt; Firm Value</b>	0,206896	0,086637	0,086637	2,388091
<b>Funding Decision -&gt; Firm Value</b>	-0,125558	0,112541	0,112541	1,115670
<b>Investment Decision -&gt; Firm Value</b>	0,586107	0,132072	0,132072	4,437785



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With a path coefficient value of 0.586, it shows that every investment policy made by management will be responded positively by investors. The investment decision provides a positive signal to investors that the funds they place in the banking sector provide the expected profit. The increase in assets owned by the company is a separate calculation for investors in determining the value of the company.

The path coefficient of -0.125 indicates that both investors and stakeholders have a negative response to the increase in the amount of debt held by the bank. The increase in the amount of debt held increases the risk of default by banks. However, based on the results of the research, the impact given was not significant because investors still trusted the security system implemented in Indonesia, especially those run by Bank Indonesia and the Financial Services Authority.

The path coefficient of 0.206 indicates that investors respond positively to dividend policies given by banks, both in the form of cash dividends and non-cash dividends. The distribution of dividends provides a signal to investors that the funds placed in the bank are producing the desired results by both investors and stakeholders.

### 5. CONCLUSION

After testing, a conclusion is drawn that clearly describes the results of the effect of investment decisions, funding decisions, and dividend policies on firm value

1. Investment decisions have a significant effect on firm value
2. Funding decisions have no significant effect on firm value
3. Dividend policy has a significant effect on firm value

### LIMITATION AND STUDY FORWARD

The research produced by this author has several limitations including the data used is still relatively small, and the scope of the sample used is still limited to companies engaged in the banking sector that have strict rules in carrying out investment policies and funding policies.

The author hopes that further research can add more data used to be even longer, and research samples can be developed not only related to banking companies but also companies engaged in financial services and banking so that better results can be obtained. to reflect the effect of financial decisions on firm value in the banking and financial services sector

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## Do Islamic Rural Banks Support Regional Economic Growth In Indonesia?

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### Abstract

**Purpose:** This study aims to investigate the effect of Deposit Ratio and Financing Ratio on Gross Regional Domestic Product.

**Research Methodology:** Secondary data from the Financial Services Authority and the Central Bureau of Statistics for 2017-2019. Analysis techniques using regression and correlation tests.

**Results:** Based on the partial regression test results, only Dep\_ratio has a positive effect on GRDP. The F test results show that the financing ratio and dep\_ratio have a positive and significant impact on GDRP. The one-way correlation test (sig 1-tailed) also shows a relationship between the two independent variables and the GRDP.

**Limitations:** The limitation of this study is the availability of Islamic Rural Bank data for various regions.

**Contribution:** The research method can be used for national and regional microfinance institutions.

**Keywords:** *Islamic, Rural Banking, Deposit, financing, Economic, Growth*

## 1. INTRODUCTION

Economic growth is one of the many indicators to measure the success of a country's economic development. One way of economic progress can be seen in the change in output per capita, as measured by the Gross Regional Domestic Product (Adisasmita, 2013). (Todaro, 2000). According to Amidu et al. (2016), long and short-term investments can drive economic growth. The existence of investment will increase business enthusiasm; increasing production capacity will also increase employment to increase income (Rabnawaz & Sohail Jafar, 2016).

Policies that inhibit investment will affect the rate of economic growth of a country. The existence of fiscal decentralization will also impact policy adjustments with each region and, in the end, will also have an impact on regional economic growth. (Bacarezza et al., 2019). In other words, regional economic development is primarily determined by the policies of each local government head. Besides, according to Chirwa & Odhiambo (2016), macroeconomic factors are also a determinant of reducing negative growth from unstable capital flows.

Economic development is a process to achieve economic growth by continuously increasing per capita income and improving the institutional system in various fields (Arsyad, 1999). The occurrence of inequality in people's income, inequality, and poverty will reduce economic growth (Breunig & Majeed, 2019). Therefore, reducing poverty by increasing and distributing income will have an impact on regional economic development.

Based on Indonesian Constitution Number 21 of 2008 concerning Islamic Banking, the definition of an Islamic Rural Bank is an Islamic bank that does not provide services in payment traffic. According to the constitution above, based on the objectives of Islamic banks, they aim to support the implementation of national development to improve justice, togetherness, and equitable distribution of people's welfare. The function of Conventional Rural Banks or Islamic Rural banks' activities is for lending/financing to customers of micro, small and medium enterprises that can not be served by commercial banks (Latumaerissa, 2011). Therefore, the existence of Rural Bank is an opportunity for



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Micro, Small, and Medium Enterprises (MSMEs) entrepreneurs to gain access to business capital and an opportunity to increase operating profits.

Lending to MSMEs through Rural/Islamic Banks will help improve the performance of community industrial businesses (Azriani et al., 2008). Results of studies conducted by Hartarska et al. (2015) shows that there is a relationship between bank loans and economic growth. With the growth in business credit, there will be opportunities for people to get business capital and will also encourage the growth of business activities. An increase in a business marked by an increase in turnover or business assets will also have an impact on the welfare of the people in the region, thereby increasing transactions and demand for goods and services. Boldeanu & Constantinescu (2015) found that an increase in the expenditure and investment budget plays an essential role in economic growth. In other words, that investment and an increase in the budget will encourage an increase in transactions for goods and services.

In another case, according to Chu (2019), in a study of the effect of the banking crisis on economic growth under an unbalanced financial system and banking crisis, financial and banking crises can disrupt economic growth. Mensah *et al.* (2012) examined the relationship between bank efficiency and economic growth in Africa. The results of these studies indicate a bank efficiency of 69%. The level of bank efficiency is positively related to economic growth. Efficiency can increase bank revenues and reduce operating costs. Bank income is very dependent on credit quality. According to Ghosh (2015)), a bank that can maintain credit standards will have an impact on reducing non-performance loans. Banks that have a low level of bad credit risk will encourage banks to increase their credit allocation, which will have an impact on increasing business. Conversely, when decisions on lending do not comply with standards, it will increase the chances of non-performing loans, so that it will have an impact on bank stability. Therefore, banks experiencing credit problems will have an impact on lending decisions.

Based on these studies, several variables were developed, namely the Gross Regional Domestic Product, financing, and savings fund variables. Financing describes the ability of Islamic banks to channel funds to the public massively. The public saving variable represents the circulation of money through Islamic financial institutions. Variable Gross Regional Domestic Product as an indicator of economic growth is illustrated by the growth in the production of goods and services. Furthermore, this article is divided into several parts, namely, first, an introduction that explains the background to the problem. Second, literature reviews and hypotheses that will examine previous research and build a conceptual framework. Third, research methods that will discuss data collection techniques and data analysis followed by discussion. Lastly, conclusions.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Literature Study

#### 1. Economic Growth

Economic growth is a quantitative measure that describes the development of the economy in a certain year compared to the previous year (Sukirno, 2014). Economic growth can also be interpreted as an increase in Gross Domestic Product (GDP) regardless of whether the increase is greater or smaller than the population growth rate (Arsyad, 1999). Economic growth can be assessed by an increase in national income, which also means an increase in per capita income within a certain calculation period (Ridwan, 2013). For districts or cities, economic growth can be seen from the Gross Regional Domestic Product (GRDP).

Another definition of economic growth is the increase in the long-term capacity of the country concerned to provide various economic goods to its population. The increase in capacity is made possible by the progress or adjustment of technological, institutional, and ideological adjustments to multiple circumstances (Todaro, 2000).



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### 2. Factors Affecting Economic Growth

According to Boldeanu & Constantinescu (2015), there are four important factors that affect economic growth, namely human resources, natural resources, capital, and technology. Other literature also explains that in the modern era, various factors influence the economy. Economists consider the factors of production as the main force influencing growth. Several factors of production consist of (Adisasmita, 2013):

- a. Natural Resources are the main factors affecting economic growth.
- b. Capital accumulation or capital formation is increasing the capital stock within a certain time.
- c. Organizations are complementary (complement) to capital, labor and help increase their productivity.
- d. Technological progress is the most important thing in economic growth, namely to increase productivity, capital, and other production factors
- e. Division of Labor and Production Scale, specialization, and division of labor creates increased productivity. Both lead to large-scale production economies, which in turn foster industrial development.

### Previous Research

Singh (2010) conducted a study on the effect of domestic saving on economic growth in India. GDP is a proxy for economic growth, as measured by Ln-GDP. The independent variable uses gross domestic savings (GDS), which is calculated using Ln-GDS. In the long run, domestic saving has an impact on income and economic growth. Capital flows will accelerate the development of infrastructure and technology, which will drive the market-driven allocation of resources, as research conducted by Banerjee et al. (2020) states that infrastructure network development encourages economic improvement.

Mensah *et al.* (2012) examine the relationship between bank efficiency and economic growth in Africa. The dependent variable used is the Gross Domestic Product (GDP). The independent variable used is efficiency, private sector credit. Macroeconomic variables are inflation and government spending. Governance variables are politics and the business environment. The results of these studies indicate a bank efficiency of 69%. The level of bank efficiency is positively related to economic growth. However, this study found no relationship between traditional volume measures of banking sector development and economic growth. The inflation variable has a negative effect on economic growth. In the case of controlling corruption, this study finds that fighting corruption crimes is positively related to economic growth.

Research conducted by Idun & Aboagye (2014) examined the effect of Bank Competition and Financial Innovations on economic growth in Ghana. The dependent variable is the GDP. The independent variables are physical capital accumulation, government expenditure, bank competition, and financial innovations. The results showed that financial innovation has a strong and positive effect on economic growth as measured by GDP for the short term. The saving variable, which means investment, also has a positive effect on economic growth. Bank competition has a positive influence on economic growth. However, in the short term, financial deepening, as measured by a credit to the private sector, has a negative effect on economic growth. Jayakumar et al. (2018), in their study of bank stability and economic growth, found that stable banks have a strong effect on economic growth as measured by per capita gross domestic product.

Boldeanu & Constantinescu (2015) conducted a study on the main determinants that affect economic growth. The study results show that the variables of public expenditure and foreign investment have a strong effect on economic growth as measured by Gross Domestic Product. Similar research was also conducted by Tru (2004) on the factors that influence economic growth. The independent variable used is GDP Value. Covariate variables are the share of export of good and services, the share of import of goods and services, the value of foreign direct investment (FDI), the total number of labors, the rate of official development assistance (ODA), gross nation income (GNI), and value added of agriculture, forestry and fishery sector. The results show that the share of exports, imports, FDI and



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value added of agriculture, forestry and fishery are significant effect on GDP, while inflation, labor, rate of ODA are not significant effect.

Hartarska et al. (2015) tested whether there is a relationship between bank loans and agricultural economic growth. The dependent variable used is GDP Growth. The independent variable is the agricultural credit and output-input price index. The results show that every time there is an increase in the amount of credit, the agricultural sector's economic growth will also increase. The variable of the output-input price index also has a positive relationship with GDP growth.

Rabnawaz & Sohail Jafar (2016) conducted a causality test between public investment and economic growth. The dependent variable is the GDP. The independent variable is revenue made by the government and public investment. The test results show that rapid economic growth (GDP) will cause public investment to increase. Likewise, with public investment, GDP will also increase. The state income variable also has a positive relationship with GDP growth.

Amidu et al. (2016) revealed an increase in private housing investment could cause economic growth. On the other hand, economic growth does not affect investment growth. Thus, it can be said that there is a relationship between long and short-term investments in economic growth. These results explain that the provision of policies that inhibit investment will affect the economic growth of a country. This study's results are in line with research conducted by Chirwa & Odhiambo (2016) in their research on macroeconomic factors that affect economic growth. The results of his research found that economic growth in developing countries is determined by factors of foreign assistance, foreign direct investment, fiscal policy, investment, trade, human resource development, demographics, monetary policy, natural resources, reform and geographical, regional, political and finance policy factors.

Neanidis (2019), in his research, found that the flow of foreign capital will encourage the economic growth of a country. The dependent variable used is GDP per capita. The independent variables are capital flow, FDI flow, equity flow, debt flow, banking supervision, education, people growth, investment, trade, government consumption, inflation, and private credit. Tight policies related to foreign capital inflows will reduce negative growth from volatile capital flows. FDI and equity flow have a positive impact on GDP growth. Regulatory policies are an important element in reducing systematic risks that have an impact on economic growth. An unstable financial cash flow will impact efficient natural resource management activities.

Bacarezza et al. (2019) criticized the causal relationship of economic growth and fiscal decentralization. In his research, he tries to use geographic variables of a country, which include heterogeneity in demand for public services that can influence regional government policies, so that fiscal decentralization will also have an impact on policy adjustments with each region and in the end, it will also have an impact on the economic growth of the area. The results of these studies show that fiscal decentralization has a positive effect on economic growth.

The study conducted by Chu (2019) investigates whether the financial structure's effect on economic growth is caused by the banking crisis and economic volatility, the level of financial development, and the financial structure disproportion. The variables used are financial structure\_size, financial structure\_activity, financial structure\_efficiency, government consumption, trade, inflation rate. The results showed that the banking crisis and macroeconomic voting had a negative effect on economic growth. It is imperative for policymakers to focus on strategies to balance the long-term financial structure. The activity and efficiency of the financial structure will help the country's economic growth rapidly. The role of the banking stock market is strong, accompanied by developments in the financial sector.

Breunig & Majeed (2019) tested the effect of poverty and economic inequality on economic growth. The variables used are Investment to GDP Ratio, Years of Schooling, Population Growth, Price of investment, Trade Share of GDP, Relative Distribution. His research shows that in countries with the highest poverty, inequality, and poverty negatively affect economic growth.



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Akram & Rath (2019) conducted a study of the optimum effect of government size on economic growth. The variables used are Gross State Domestic Product, Population Growth, Employment Growth, Gross Fixed Capital Formation, and Government Size. The study results show that government size as measured by government consumption expenditure has a positive and significant effect on economic growth, especially when the government size is between the lower and the higher ones. However, when the government size moves above the upper limit of the threshold, government size decreases and becomes insignificant. The three main compositions of government size are income, capital, and expenditure, all of which positively and significantly impact economic growth.

Research conducted by M. Anwar et al. (2020) examines Islamic banks' contribution to economic growth. The variables used are GDP, Total Deposit, Total Financing, Islamic Bank Office. The results show that all independent variables have a strong relationship with economic growth in the short and long term. Ledhem & Mekidiche (2020) also tested the relationship between financial performance and economic growth. The variable of economic growth is proxied by GDP. The independent variable uses the CAMELS parameter as a proxy for financial performance. Control variables use trade proxies; Gross fixed capital formation (GFCF) and consumer price index (CPI). The results showed that only the profitability variable has a positive and significant effect on economic growth. The variables of capital adequacy, asset quality, management, liquidity, sensitivity to market risk have no significant impact on economic growth.

Lay (2020) also conducted a study on the effect of bank credit on economic growth. GDP as a proxy for economic growth. Independent variable using bank credit. The covariant variable (Inv), government expenditure (Gov), population (POP), the term of the trade (ToT), openness, and crisis a dummy variable. The results of the study show that bank credit has a positive and significant effect on economic growth.

Elmawazini et al. (2020) tested Islamic and commercial banks' influence on the Gulf region's economic growth before, during, and after the financial crisis. The variables used are GDP per capita, financing of Islamic bank, loan of a conventional bank. The results showed that Islamic banks have a significant effect on economic growth than conventional banks. Islamic finance through Islamic banking can promote economic growth more than conventional finance through unique financial instruments.

Based on previous research studies, the following hypothesis is compiled:

Ho = There is no effect of financing ratio on economic growth

Ha = there is an effect of financing ratio on economic growth

Ho = There is no effect of the deposit ratio on economic growth

Ha = there is an effect of the deposit ratio on economic growth

### 3. RESEARCH METHODOLOGY

The data used is secondary data sourced from the Financial Services Authority and the Central Bureau of Statistics of the Republic of Indonesia. The data used are time series data and cross-section of the period 2017-2019. Gross Regional Domestic Product (GDP) data is taken from the GRDP growth rate data for each district or city throughout Indonesia. Islamic Rural Bank data is taken as data per December per district or city. Data editing was carried out to adjust the GDP and Islamic Rural Bank data in each region. The number of districts/cities that became the research sample was 68 out of 459 throughout Indonesia. For banking data, the total calculation of all banks in one region was carried out, so that 68 observation data were obtained from 170 Islamic Rural Banks so that the total observation data for three years was 204.

GRDP is a proxy that represents regional economic growth. The use of GRDP based on a constant price basis shows the added value of these goods and services, which is calculated using the



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prevailing prices in a certain year as the base year. The growing GRDP illustrates the state of the bank's economy. GRDP is the dependent variable. Meanwhile, the independent variables consist of Dep\_Ratio and FDR.

The Dep\_Ratio variable is calculated using the ratio between total depositors' funds per region to the total depositors' funds of all Islamic Rural Banks expressed as a percentage. Dep\_Ratio is used as an illustration of the turnover of funds from the community to the community so that it can see the role of society in economic development through Islamic micro banking. The use of the ratio of regional depositors' funds to national depositors' funds aims to compare Islamic Rural Banks' performance in collecting public funds.

The FDR variable is calculated based on the ratio between total financing to total depositors' funds per region. The use of the FDR variable aims to see the performance of Islamic Rural Banks in lending. This financing ratio illustrates a bank's ability to extend credit based on depositors' funds. A high credit ratio will provide an opportunity for banks to offer large funds for lending. It means that high credit will encourage increased production of goods and services.

This study uses regression analysis techniques with a focus on the following one model:

$$\text{GRDP} = a + \beta_1 \text{FDR} + \beta_2 \text{Dep\_Ratio} + \varepsilon$$

Where:

GRDP = Gross Regional Domestic Product

FDR = Financing to Deposit Ratio

Dep\_Ratio = Deposit Ratio

#### 4. RESULTS AND DISCUSSIONS

##### Description Test Result

Table 1 below shows that the lowest financing ratio is 40 percent, and the highest is 140 percent for deposit funds. The low ratio of financing indicates that the demand for Islamic Rural Bank credit is still very low in that area. Meanwhile, the highest financing ratio indicates that the demand for Islamic Rural Bank funds is very high. This high ratio can be caused by high demand for credit or an increase in the amount of credit not offset by an increase in savings or time deposits. A standard deviation lower than the average means that the financing ratio across regions is evenly distributed around 90 percent of total depositors' funds. Overall, the average ratio of financing to total deposits is 98 percent, so it can be said that all Islamic Rural Bank financing comes from depositors' funds. This condition illustrates that an increase in depositors' funds will be followed by an increase in financing.

The deposit ratio also shows that there is the lowest ratio of total depositors' funds to total national depositors' funds, namely 0.01 percent. The highest ratio of depositor funds is 13.69 percent. Nationally, the lowest ratio indicates that in this area, the interest in saving in Islamic Rural Bank is still very low. Public trust in investing in Islamic Rural Banks is still low so that it has an impact on increasing or decreasing public fund collection and credit distribution. The high ratio of depositor funds shows that the public interest in using Islamic Rural Bank Islamic financial services is very high. Overall, the average amount of depositors' funds is 1.4 percent with a standard deviation of 2.13, so it can be said that the amount of depositors' funds is evenly distributed, and there is no high imbalance.

The lowest GRDP growth rate was 0.14 percent, and the highest was 9.90 percent. This shows that the production output of goods in the area is very low. On the other hand, there are regions that have a growth rate of 9.90 percent. This shows that the growth in production output has increased sharply.



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However, overall, the GRDP growth rate is around 5.4 percent, with a Standard Deviation of 1.3 percent, indicating that the GRDP growth rate is evenly distributed for all districts/cities.

**Table 1: Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Financing to Deposit Ratio (FDR)	204	.40	1.40	.9813	.22968
Deposit Ratio (Dep_Ratio)	204	.01	13.69	1.4705	2.13553
Gross Regional Domestic Product (GRDP)	204	.14	9.90	5.4495	1.30521

### Regression Test Results

Based on table 2, the ANOVA test results show that the p-value (significance F)  $0.006 < 0.05$  (5%, significance level). Thus, it can be interpreted that simultaneously the predictor variables of Deposit Ratio and Financing Ratios positively and significantly affect the Gross Regional Domestic Product variable. Value Sum of Squares indicates a regression value of 17 016, which means the dependent variable is affected by the independent; other variables outside the model influence the rest amounted to 328 811.

**Tabel 2: ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.016	2	8.508	5.201	.006 <sup>b</sup>
	Residual	328.811	201	1.636		
	Total	345.827	203			

a. Dependent Variable: Gross Regional Domestic Product

b. Predictors: (Constant), Deposit Rasio, Financing to Deposit Ratio

In table 3, the summary model test results get an R-Square value of 0.049, which means that the independent variable explains the dependent variable by 4.9 percent, and the rest is explained by other variables. In other words, the predictors of Deposit Ratio and Financing Ratio contributed to GRDP by 4.9 percent. The R-value of 0.22 or 22 percent is the closeness of the relationship between the dependent variables and predictors.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.222 <sup>a</sup>	.049	.040	1.27906	2.217

a. Predictors: (Constant), Deposit Rasio, Financing to Deposit Ratio

b. Dependent Variable: Gross Regional Domestic Product

Table 4 shows that the regression test results show that the FDR variable's p-value (significance) on GRDP is greater than 0.05 (significance level 5%), which means that  $H_0$  is accepted, and  $H_a$  is



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rejected. Dep\_Ratio variable has a P-Value smaller than 0.05. A P-value less than 0.05, which means rejecting the hypothesis  $H_0$  and accepting  $H_a$ . The coefficient value of the FDR variable is 0.611 or 61.1 percent. The value of the Dep\_Ratio variable coefficient is 0.112 or 11.2 percent. All coefficient values for the independent variable on the dependent are positive coefficient values. Changes in the dependent variable will depend on the coefficient value of the independent variable.

**Table 4: Coefficients**

Model	Unstandardized Coefficients		Standardized	t	Sig.
	B	Std. Error	Coefficients Beta		
1 (Constant)	5.015	.407		12.329	.000
Financing to Deposit Ratio (FDR)	.611	.393	.107	1.555	.122
Deposit Rasio (Dep_Ratio)	.112	.042	.183	2.649	.009

a. Dependent Variable: Gross Regional Domestic Product

In table 5, we get the Pearson Correlation value between all the independent and dependent variables. The correlation value for the FDR and GRDP variables was 0.126 or 12.6 percent. The correlation value of the FDR and Dep\_Ratio variables is 0.102 or 10.2 percent. The correlation value of Dep\_Ratio and GRDP is 0.194 or 19.4 percent. The P-Value between the FDR and GRDP variables is  $0.036 < 0.05$ . The P-Value between the FDR and Dep\_Ratio variables is  $0.073 > 0.05$ . The P-Value between Dep\_Ratio and GRDP variables is  $0.003 < 0.05$ . The correlation test results for the one-way significance (Sig. 1-tailed) show that there is a positive and significant relationship between the FDR and GRDP variables, as well as the relationship between Dep\_Ratio and GRDP. Meanwhile, there is a positive and insignificant relationship between the FDR and Dep\_ratio variables.

**Table 5: Correlations**

		Gross Regional Domestic Product	Financing to Deposit Ratio	Deposit Ratio
Pearson Correlation	Gross Regional Domestic Product (GRDP)	1.000	.126	.194
	Financing to Deposit Ratio (FDR)	.126	1.000	.102
	Deposit Rasio (Dep_Ratio)	.194	.102	1.000
Sig. (1-tailed)	Gross Regional Domestic Product (GRDP)	.	.036	.003
	Financing to Deposit Ratio (FDR)	.036	.	.073
	Deposit Rasio (Dep_Ratio)	.003	.073	.

### Discussion

Islamic Rural Bank is expected to become part of regional economic development. As a micro bank, Islamic Rural Bank has an important role in increasing the production of goods and services and encouraging the growth of small and medium enterprises. Seeing that the average Islamic Rural Bank



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financing is around 98 percent of the total deposit funds indicates that the bank is very dependent on the community's role as holders of deposit funds. Based on the study of Lisa (2016) and Miyajima (2020) which states that there is a strong influence on the level of deposit funds on lending decisions.

Public enthusiasm for using savings and deposit products at Islamic Rural Bank is still low. We see the average level of the ratio of total savings and time deposits in a district/city to total national savings and time deposits, namely 1.4 percent and lower than the standard deviation of 2.13. Of course, this indicates inequality in the performance of Islamic Rural Bank fundraising in various regions. This condition illustrates that the community's enthusiasm to use Islamic microfinance institutions between regions is very different. The performance of raising funds will also have an impact on lending decisions. In addition, low performance will also have an impact on public trust in the Islamic Rural Bank. Loss of customer confidence will also have an impact on bank performance. According to Eriksson et al. (2020), trust has a strong and positive influence on banking performance.

The Gross Regional Domestic Product (GRDP) growth rate in various regions is evenly distributed at around 5.4 percent. A standard deviation value that is lower than the average GRDP value indicates that there is evenness across the region. Although there are regions that have growth rates that are much lower or highest than the average value, overall, the GRDP growth rate is close to the average value. These results also indicate that all regions' economic activity is running well and there is no sharp imbalance. The increase in Gross Regional Domestic Product also indicates that economic growth is improving, the demand and supply of goods and services also increases. Economic growth also indicates that people's purchasing power remains stable so that demand for goods and services continues to grow steadily. For producers, stable prices and purchasing power will encourage increased production capacity.

Increased production is also determined by the business capital owned. Microfinance institutions also have an important role in lending for business capital. Based on table 3, Islamic Rural Bank contributed 4.9 percent to the GRDP growth rate. This also confirms that many factors affect GRDP growth as an indicator of a country's economic growth. Following many research results that get many factors that affect economic growth, such as research by Boldeanu & Constantinescu (2015), Mensah et al. (2012), Chu (2019), and Breunig & Majeed (2019).

If we look at the coefficient value, only the Dep\_Ratio variable has a positive and significant effect on GRDP. This study's results support research conducted by Singh (2010), M. Anwar et al. (2020), and Idun & Aboagye (2014), which state that saving has a positive effect on economic growth. This shows that the role of society is very important for economic growth. Increased depositors' accumulation of funds will also encourage banks to increase lending. In the long term, household savings will also encourage an increase in income, which will impact the ability to meet household needs.

The average FDR ratio indicates that the dependence of credit policy on depositors' funds is also very high. Increased lending will encourage business expansion, especially small and medium enterprises. Growing businesses will also encourage increased production and distribution of goods and services. Microcredit loans can also increase their skills and knowledge. Microcredit can also increase household income through resource empowerment (Thanh et al., 2019). The empowerment of resources will encourage employment. On the other hand, growing businesses will also absorb labor and increase the consumption of goods and services, thereby encouraging an increase in the supply of goods and services.

Although statistically, there is no significant effect of the FDR variable on GRDP; the coefficient value shows that credit distribution contributed 61.1 percent to the GRDP growth rate. The F test also shows that the FDR and Dep\_Ratio variables have a positive and significant effect on the GRDP growth rate. These results are consistent with research conducted by Mensah et al. (2012); Hartarska et al. (2015); Neanidis (2019); Lay (2020); and M. Anwar et al. (2020), which states that credit distribution contributes to economic growth. Likewise, according to Elmawazini et al. (2020) which states that during the crisis period as well as after the financial crisis, the Islamic Bank contributes to



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economic growth through unique financial instruments. This also confirms that the Islamic Rural Bank must improve the performance of collecting and channeling funds together.

If we look at the one-way correlation value (sig. 1-tailed), it shows a positive and significant relationship between the FDR and GRDP variables of 12.6 percent. This also supports the results of the F-test that credit disbursement contributes to economic growth. Likewise, with the one-way correlation value (sig.1-tailed) for the Dep\_Ratio and GDRP variables, there is a positive and significant relationship, so these results also support the F test results the partial effect of Dep\_Ratio on GRDP.

### 5. CONCLUSION

Based on the partial regression test results, it was found that only the dep\_ratio variable had a positive and significant effect on economic growth proxied by the gross regional domestic product (GRDP). However, based on the F test, the FDR and Dep\_Ratio variables positively and significantly affect GRDP. If we look at the one-way correlation test (sig. 1-tailed), partially FDR and Dep\_Ratio have a positive and significant relationship to GRDP.

### LIMITATION AND STUDY FORWARD

The limitation of this research is the availability of Islamic Rural Bank and macroeconomic data per region. Furthermore, further research examines the role of Islamic Rural Banks on the growth of regional small and medium enterprises.

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## ORGANIZATIONAL SUPPORT AND ITS INFLUENCE ON OBJECTIVE CAREER SUCCESS

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### Abstract

**Purpose:** One of the factors that led to the successful employee's career was organizational support. The results of several studies suggest that organizational support has a positive relationship to career success such as the opportunity to earn a bigger salary and promotion of positions. Organizational support also makes one willing to participate in career development activities that will ultimately impact objective career success. Thus, the purpose of this research is to examine more the influence of organizational support on objective career success.

**Research Methodology:** The population in this study was nurses at the Eye Specialty Hospital of South Sumatra Province as many as 67 peoples. Samples were taken using census sampling techniques. The type of data in this study is primary data taken by disseminating questionnaires to respondents. The data is processed and analyzed using descriptive analysis and multiple linear regression analysis.

**Results:** The results of this study found that organizational support consisting of career sponsorship, employer support, and self-development opportunities simultaneously affected objective career success. Partially only self-development opportunities affect objective career success, while career sponsorship and employer support do not affect.

**Limitations:** Based on the results of the study that organizational support variables only explain a portion of objective career success variables so that subsequent studies can be added and explored again other variables that can affect objective career success variables.

**Contribution:** Organizational support and employee career success are part of human resource management science so that the results of this research are expected to be used as a reference for further research in the field of human resource management, especially on the topic of research on the career development of employees in the organization.

**Keywords:** *Organizational support, career sponsorship, employer support, self-development opportunities, objective career success*

### 1. INTRODUCTION

Every employee wants to achieve success in their career. Career success is an accumulation of achievements during one's work experience (Haines et al., 2014). Career success has two dimensions, namely objective career success and subjective career success (Cao et al., 2012). Objective career success is a career achievement that can be seen directly and has a standardized size whereas subjective career success is an evaluation of the career itself and experience in achieving career results (Spurk et al., 2019). Objective career success is an external career achievement that is usually assessed by others or the social environment (Rasdi et.al, 2009)

The hospital is an institution consisting of several professions, such as doctors, nurses, and other health workers and there are several positions in the hospital such as director or head of the hospital, deputy director, head of the field, or manager. As the population grows, the need for health workers also increases, one of which is the nurses. In hospitals, nurses have the largest proportion of health workers. As of December 2016, the majority of nurses were placed in hospitals, amounting to 58.26 percent, and the rest were placed in health centers and disadvantaged, disadvantaged, and outer areas (Source: Datacenter and Information of the Ministry of Health, 2017). Based on Regulation of the Minister of Health of the Republic of Indonesia No. 40 of 2017 on The Development of Professional Career Level of Clinical Nurses, there are four areas of professional career level nurses, Clinical



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Nurse, Nurse Manager, Nurse Educator, and Nurse Research. Nurses who are in the hospital are mostly Clinical Nurses and Nurse Managers. The Eye Specialty Hospital of South Sumatra Province is one of the hospitals in Palembang. The hospital has 67 nurses and almost all have a professional career as a Clinical Nurse (source: The Eye Specialty Hospital of South Sumatra Province, 2020). In the professional career level of nurses, the clinical nurse level is the lowest career level. Achieving the improvement of the nurse's career level is one form of objective career success.

One of the factors that led to the successful employee's career was organizational support. The results suggest that organizational support has a positive relationship to career success (Ballout, 2007; Said et al., 2015). The organization's support also has a positive relationship with the opportunity to earn a bigger salary and promotion of positions. Organizational support makes one willing to participate in career development activities that will ultimately impact objective career success (Rasdi et al., 2009). Organizational support has several dimensions such as career sponsorship, employer support (Ng et al., 2005), and opportunities to develop themselves (Said et al., 2015).

The lower the career level of the nurse will have an impact on the total salary received because the higher the career level, the higher the total salary of the nurse. Total income is an accumulation of salaries and allowances. The career level also shows the level of promotion of the position obtained. The more often a nurse gets promoted to a position, her career will increase so it can be said that the nurse achieved objective career success. The objective career success of nurses will be achieved with the support of the organization that in this case is the hospital where the nurse works.

Based on the phenomenon outlined above, this study will examine more about the influence of organizational support on objective career success where the organization's support is described as career sponsorship, employer support, and self-development opportunities so that the formulation of the problem in this research is: Do career sponsorships, employer support, and self-development opportunities affect objective career success simultaneously and partially?

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Organizational Support

According to Eisenberger's Organizational Support Theory (OST) in 1986, employees have a general perception of how organizations assess employee contributions and care about their well-being (Kurtessis et al., 2017). Organizational Support Theory (OST) considers the development and results of the perception of organizational support. According to this theory, employees develop a perception of organizational support in response to socio-emotional needs and organizational readiness to increase rewards for employees for all efforts that have been made for the organization. Organizational Support Theory (OST) maintains on the principle of reciprocity where employees dedicate themselves to organizations to get paid salaries and incentives, as well as socio-emotional rewards such as self-esteem, acceptance, and care from the organization so that ultimately a healthy relationship between employees and organizations will have an impact on employee welfare (Baran et al., 2012). Organizational Support Theory (OST) suggests that perceptions of organizational support have a relationship with employee commitment, job satisfaction, employee performance, and other results (Kurtessis et al., 2017).

Organizational support is a situation in which the organization provides direction to employees in achieving career success. Organizational support is also referred to as organizational career management (Barnett & Bradley, 2007). Organizational support can improve employee competency, which is one of the factors associated with career success. Organizational support has a positive relationship with job recognition, salaries, and promotions (Ballout, 2007). The organization's support will allow employees to get promoted positions (Diao & Park, 2011). According to (Baran et al., 2012), the perception of organizational support has three parts: fairness, appreciation and good



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working conditions (training, autonomy, role pressure), and employer support while according to (Ng et al., 2005), organizational support has dimensions: career sponsorship, employer support, opportunities to develop themselves, and organizational resources.

Career sponsorship can be the extent to which an employee receives support from senior employees in career enhancements such as coaching and protection. Employer support can be in the form of emotional support and support for work such as providing feedback on performance, providing career information, allowing employees to learn, and providing challenging tasks so that employees can develop their careers. The opportunity to develop themselves can be the extent to which organizations provide opportunities for employees to develop skills. Organizational resources are defined as a measure of the organization indicating the number of employees and the amount of organizational support allocated to employees (Ng et al., 2005). Another form of organizational support for employees can be employee development programs and provide opportunities for employees to participate in training. The efforts made by the organization show the organization's concern for its employees (Chew & Wong, 2008). Another form is the awarding of employees' work and paying attention to the socio-emotional needs of employees (Ming-Chu & Meng-Hsiu, 2015).

### Objective Career Success

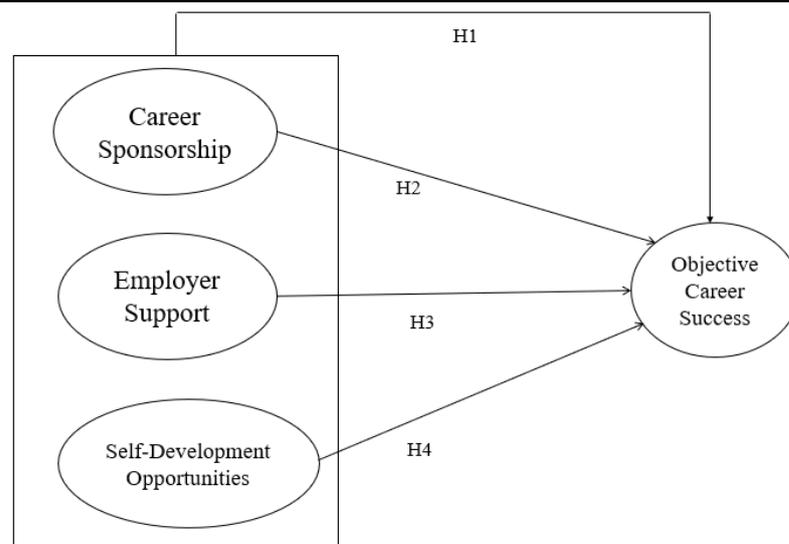
Career success is an accumulation of achievements obtained by employees during their work experience (Haines et al., 2014). In today's life, success in a career is the desire of every individual because it is considered an achievement in life (Purba, 2017). There are two perspectives on career success, individualistic perspectives and structural perspectives (Kistyanto, 2008). From an individualistic perspective, an individual is a primary agent in determining his or her career while a structural perspective holds that it is the organization that determines a person's career.

Career success has two dimensions, objective career success and subjective career success (Cao et al., 2012). Objective career success is also referred to as extrinsic career success while subjective career success is referred to as intrinsic career success (Kuijpers et al., 2006). The form of objective career success such as salary, position, and employment status while the form of subjective career success can be the achievement of goals, the happiness of life, and good career prospects (Tharmaseelan et al., 2010). Other research reveals that objective career success can be promoted while subjective career success is in the form of career satisfaction (Stumpf & Tymon, 2012).

Objective career success is measured based on external criteria (Santos, 2016). Objective career success is measured by salary indicators and promotion of positions (Hirschi et al., 2018). The results of the study state that indicators of objective career success can be material achievements such as salary, the position of office, and reputation (Poon et al., 2015). Other research also mentions that objective career success is easier to measure than subjective career success (Said et al., 2015).

### Research Framework

The research framework used in this study can be seen in the figure below:



**Figure 1. Research Framework**

### Research Hypothesis

The hypotheses presented in this study are as follows:

- H1. Career sponsorship, employer support, and self-development opportunities affect objective career success simultaneously.
- H2. Career sponsorship affects objective career success partially.
- H3. Employer support affects objective career success partially.
- H4. Self-development opportunities affect objective career success partially.

### 3. RESEARCH METHODOLOGY

This research is associative research that aims to find out the effect of independent variables on dependent variables. The independent variables in this study consist of career sponsorship, employer support, and self-development opportunities while the dependent variable is objective career success. The population in this study was nurses at the Eye Specialty Hospital of South Sumatra Province as many 67 peoples and all members of the population were sampled. The data used in this study is primary data taken directly from the source using a data collection tool in the form of a questionnaire. The questionnaire contains many questions related to research issues that will be filled out by respondents. Before being distributed to respondents the questionnaire was first tested with a validity test and reliability test. The details of the statement in the questionnaire use a scale of Likert 1 to 5 with a choice of answers ranging from strongly disagreeing to strongly agreeing. Research data will be analyzed using descriptive analysis techniques and multiple linear regression analysis.

### 4. RESULTS AND DISCUSSIONS

#### Descriptive Analysis

##### Descriptive Analysis of Objective Career Success Variables

Based on respondents' responses to statements about objective career success, most respondents agreed with those statements. Statements about the respondent's objective career success include the amount of total salary that can meet the needs of life and following the level of education, as well as the promotion of positions ever earned. Objective career success is measured by salary indicators and promotion of positions (Hirschi et.al, 2018). Career success is easier to measure and see. Nurses who



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get promoted positions will be followed by an increase in the total salary earned. The total salary is the accumulation of basic salary and allowances. The higher the position, the greater the benefits that employees earn. Salaries are also related to the level of education, the higher the level of education, the greater the total salary received.

### Career Sponsorship Variable Descriptive Analysis

Respondents' responses to statements about career sponsors largely agreed. Statements on career sponsorship consist of information on career level, career coaching from institutions, and support from senior nurses. Most nurses agree that workplace institutions have provided information on the career level of nurses as well as conducting coaching to improve career levels. Also, the majority of respondents felt that they had the support of senior nurses in achieving objective career success.

### Descriptive Analysis of Employer Support Variables

Respondents' responses to statements about the support of superiors largely agreed. Statements regarding these variables consist of feedback from superiors regarding nurse performance, emotional support from superiors to subordinates, and career protection from employers. The employer is a direct leader for his subordinates. The employer should know the circumstances of his subordinates especially related to his career. Subordinates who get support from superiors will be motivated to continue to achieve their objective career success.

### Descriptive Analysis of Variable Self-Development Opportunities

Based on respondents' answers to statements about self-development opportunities consisting of: opportunities to participate in self-development activities, facilities from institutions for self-development, and challenging tasks from institutions for nurses to develop themselves, some respondents gave agreed answers to these statements. Activities related to self-development can be in the form of training or courses. Institutions can facilitate this activity for their employees. The hospital can send some of its nurses to attend training where it relates to the scope of its work. Through self-development activities, nurses are expected to improve their skills and skills to support objective career success in the form of promotion of positions.

### Multiple Linear Regression Analysis

**Table 1. Regression Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1 (Constant)	5.217	1.314	
Career Sponsorship	.034	.176	.032
Employer Support	.267	.208	.229
Self-Development Opportunities	.390	.190	.364

a. Dependent Variable: Objective Career Success

Source: Primary Data Processed, 2020

Based on Table 1 above, the output values can be included in the multiple linear regression equations as follows:  $Y = 5,217 + 0,034X_1 + 0,267X_2 + 0,390X_3 + e$ . The regression coefficient show numbers with positive signs, meaning that the higher career sponsorship, employer support, and self-development opportunities, the higher the objective career success.

**Table 2. Correlation and Determination Coefficient**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.582 <sup>a</sup>	.339	.304	2.15562	1.936

Source: Primary Data Processed, 2020



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Based on Table 2 can be a known correlation coefficient value (R) and determination coefficient ( $R^2$ ). The correlation coefficient value indicates the degree of closeness between independent variables and dependent variable while the determination coefficient shows how the contribution influences a free variable in explaining its bound variables. In the table above can be seen the correlation coefficient value (R) of 0.582 means the relationship between independent variables consisting of career sponsorship, employer support, and self-development opportunities with dependent variable objective career success were moderate. The value of the determination coefficient ( $R^2$ ) was 0.339 which means the contribution of career sponsorship influence, employer support, and self-development opportunities to objective career success were 33.9 percent while the remaining 66.1 percent was influenced by other variables not included in the model.

### F-Test

F-Test is also called model test or simultaneous test is a test to see the effect of all independent variables together on dependent variables. F-Test results can be seen from the significance column in ANOVA. If the signification value is  $< 0.05$  then it is said that there is a common influence between independent variables to the dependent variable or regression models made to have been good and can be used for prediction.

**Table 3. ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	135.912	3	45.304	9.750	.000 <sup>b</sup>
	Residual	264.861	57	4.647		
	Total	400.773	60			

Source: Primary Data Processed, 2020

The table above shows the results of the F test or regression coefficient test together. The F test result was a significance score of 0.000. If the value of significance  $< 0.05$  can be said there is an influence together between career sponsorship, employer support, and self-development opportunities on objective career success so that the H1 hypothesis on this research is acceptable where career sponsorship, employer support, and self-development opportunities have a significant effect on objective career success simultaneously.

### t-Test

The t-test is also called a partial test that is used to test the influence of each independent variable individually on the dependent variable. The t-test is also a hypothetical test. The t-test can be done by looking at the significance column on each t count. If the signification value is  $< 0.05$  then there is an influence of each independent variable to the dependent variable or there is a partial influence of independent variables to the dependent variable.

**Table 4. t-Test**

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	5.217	1.314		3.970	.000
	Career Sponsorship	.034	.176	.032	.196	.846
	Employer Support	.267	.208	.229	1.284	.204
	Self-Development Opportunities	.390	.190	.364	2.057	.044

a. Dependent Variable: Objective Career Success

Source: Primary Data Processed, 2020



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Based on the t-Test results of each independent variable to the dependent variable, only the self-development opportunity variable whose significance value is  $<0.05$  while the other variables, career sponsorship, and employer support have a value of  $>0.05$ . This means that only self-development opportunities influence objective career success while career sponsorship and employer support do not affect objective career success. Thus, the H2 hypothesis in this study was rejected where career sponsorship had no partial effect on objective career success. Similarly, the H3 hypothesis was also rejected where employer support had no partial effect on objective career success. In other parts of the H4 hypothesis in this study is accepted where the self-development opportunity affects objective career success partially.

### Discussion

#### Organizational Support and Objective Career Success

Based on the results of research obtained that organizational support consisting of career sponsorship, employer support, and self-development opportunities has a simultaneous influence on objective career success. The results of this study are in line with the results of Dose et al. (2019) research which suggests that the perception of organizational support will have an impact on career success both objective career success and subjective career success. The results of Diao & Park (2011) also found that the organization's support will increase the promotion of positions where the promotion of positions is one indicator of objective career success.

#### Career Sponsorship and Objective Career Success

The results of this study found that career sponsorship does not influence objective career success. Career sponsorship is the support of senior employees towards junior employees who can be career and coaching advice (Kistyanto, 2008). The effect of career sponsorship on objective career success can be caused by several factors. The results of Poole's research in 1993 (Kistyanto, 2008) states that objective and subjective career success can be influenced by cultural factors and social structures. This culture and social structure can be caused by seniority, personality, and gender. There is a gap in the social structure between seniors and juniors that results in the career coaching process not going well. Also, there is a culture where senior employees are more dominant in interacting with seniors and vice versa so that the process of providing career advice is not done to the maximum.

#### Employer Support and Objective Career Success

The results of this study also found that employer support did not affect objective career success. Employer support is perceived to exist by employees at a time when employers are providing the support necessary to do a good job (Tymon et al., 2011). Employer support can also provide information about careers and provide feedback on performance (Ng et al., 2005). Employer support that is part of the organization's support will have good effects on employees such as improving positive mood and job satisfaction (Kumar et al., 2018). Job satisfaction is part of a successful subjective career and not objective career success. Thus, it can be said that employer support does not affect objective career success.

#### Self-Development Opportunities and Objective Career Success

The results of this study found that self-development opportunities influence objective career success. Self-development opportunities for employees can be involved in training and courses. Employees who develop training programs either provided by the organization or facilitated by the organization will get additional knowledge and skills. Thus, the employee can fill vacancies at higher positions in the organization, or in other words, the employee has the opportunity to get a promotion to the position. This is in line with the results of research found that employees who get guidance from the organization will get the opportunity to be promoted (Gara & Ouerdian, 2019). An increase in positions will increase the income earned. The income is the accumulation of the total salary and allowance where the higher a person's position, the higher the allowance received.



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## CONCLUSION

Based on the results of the analysis, the conclusions in this study are as follows:

1. Organizational support consisting of career sponsorship, employer support, and self-development opportunities affect objective career success simultaneously.
2. Career sponsorship does not affect objective career success partially.
3. Employer support does not affect objective career success partially.
4. Self-development opportunities affect objective career success partially.

## LIMITATION AND STUDY FORWARD

Based on the results of the study that organizational support variables only explain a portion of objective career success variables so that subsequent studies can be added and explored again other variables that can affect objective career success.

## ACKNOWLEDGEMENT

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## ANALYSIS INFLUENCE OF INVESTMENT CREDIT AND GOVERNMENT CAPITAL EXPENDITURE ON INTERPROVINCIAL DEVELOPMENT INEQUALITY IN INDONESIA

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### Abstract

The purpose of this study was to analyze the effect of Investment Banking Credit and Capital Expenditures on Development Inequality between Provinces in Indonesia. Development inequality is a complex and multidimensional problem in the process of economic development in Indonesia. The method used in this study is panel data with a fixed effect approach. This research uses secondary data. The results of this study indicate that in alpha 5 percent the investment credit variable has a significant and positive effect on development disparities between provinces in Indonesia. While capital expenditure variables have significant and negative effects on development disparities between provinces in Indonesia. This study aims to analyze the influence of investment banking credit factors and capital expenditure on the level of development inequality between provinces in Indonesia in 2013-2019.

**Keywords:** Development Inequality (Williamson Index), Investment Banking Credit, Capital Expenditure

### 1. INTRODUCTION

Inequality is caused by several things namely there is a difference between natural resources and demographic conditions in each region. This matter resulting in economic growth and the development process of an area experiencing differences because each region has different capabilities. Bad constraints when the mobility of goods and services is not smooth, so that greater inequality occurs, due to the focus of certain economic activities, and there is no equitable distribution of budget allocations between regions. Development disparities that occur have direct implications on the welfare of the community in the development area (Syafrizal, 2014).

Williamson (1965) (in Kuncoro, 2004) examined the relationship between regional disparity with the level of economic development, using advanced economic data and developing economies, it was found that during the initial stages of development, regional disparities became greater and development was concentrated in the regions certain.

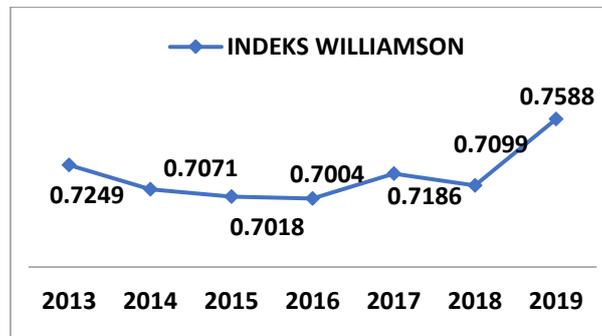
Capital limitations in carrying out development investment are what Indonesia faces as one of the developing countries in carrying out economic growth and also the development process, then this is also the case in other developing countries (Mukhlis, 2015).

Bank credit has an important role in financing the national economy and is a driver of economic growth in a country. Because the bank's function is to collect funds from people who have excess funds and channel it to the people who need funds, in general, bank credit can be distinguished based on its type.

Local government expenditure is a tool of local government intervention on the economy that is considered the most effective. The effectiveness of regional expenditure can be measured by how much economic growth can be achieved. This is because regional expenditure is more closely related to the Regional Revenue and Expenditure Budget (APBD) which will directly affect regional

revenues and regional financing so that it will directly affect economic growth. Then indirectly felt economic growth will cause inequality due to various factors.

Development disparities between provinces in Indonesia during 2013-2019 were analyzed with the Williamson Index. The closer to 0 (zero) the Williamson Index shows that inequality is getting smaller or in other words getting evenly distributed, and vice versa. The Williamson Index calculation results are presented in the following graph.



Source: Statistics Indonesia (data processed)

**Figure 1. Williamson Index Value between Provinces in Indonesia in 2013-2019.**

Based on Figure 1, related to the Williamson index value between provinces in Indonesia in 2013-2019, shows that development inequality between provinces in Indonesia fluctuated from 2013 until 2019. The decrease in inequality occurred until 2015, where the value of inequality was quite high during 2013 namely 0.7249 then in 2015 it became 0.7004. In the following year, development inequality has increased with the value reaching 0.7186 in 2017, this value does not exceed the value of development inequality in 2013. When in 2018 there was a decline in the value of inequality to 0.7099. A drastic increase in the value of development inequality occurred in 2019 with a very high inequality value of 0.7588. Even so, the imbalance of provincial development in Indonesia is still worrisome as seen through the Williamson Index, which shows a medium and high level because around 0.5

At the beginning of economic growth, inequality will be relatively higher, then confusion and equitable growth will reduce income inequality. This can also be interpreted towards the development of each island in Indonesia. So that if there has been equity, it will be able to reduce the level of development disparity between regions. Researchers are interested in conducting a study entitled "Analysis of investment banking loans and capital expenditure on development disparities between provinces in Indonesia"

Based on the introduction, it can be stated the formulation of the problem in this study, namely: how the influence of Investment Banking Loans and Capital Expenditures on Inter-Provincial Development Inequality in Indonesia.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Economic Growth Theory

The increase in output achieved by increasing the capacity of the production process, then measured by the gross domestic product and also the gross regional domestic product of a region is the definition of economic growth (Adisasmita, 2013).

### Neoclassical Growth Theory

Neoclassical growth theory was developed by two economists, namely: Robert Solow and Trevor Swan. The neoclassical theory argues that economic growth originates from the addition and development of factors that affect aggregate supply. This growth theory also emphasizes that the



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development of production factors and technological progress are determining factors in economic growth (Sukirno, 2005).

There are three main components of economic growth (Todaro, 2006), namely: (a) Capital accumulation, namely all types of new investment such as land, physical equipment, as well as capital or labor, (b) Number of forces work which increases in number in line with the increasing population growth, and (c) technology that continues to advance.

### Development Inequality Theory

Development inequality is the difference in development between one region and another, horizontally and vertically, which results in inequality in development. Inequality of development between central regions and regional regions is a common thing because there are differences in the early stages of development implementation and differences in natural resources between regions (Williamson, 1965, in Hartono, 2008)

According to Kuncoro (2006: 97-100), inequality is based on the relative standard of living that comes from the whole society. Natural resources are one of the causes of inequality between regions, so the ability of a region to improve the development process in several regions experiences differences. The inequality that occurs between regions has an impact on the level of welfare of the community between regions which ultimately results in inequality. Inequality in development has an aspect that between regions has an impact on the formulation of policies in each region that is carried out by the government.

### Factors affecting regional development

According to Sjafrizal (2008: 117-120) the factors that cause or trigger regional development disparities include the following:

1. Differences in Natural Resource Content

The main cause that drives development disparities between regions is the difference in the content of natural resources in each region. Differences in natural resources will clearly affect production activities in the region concerned. Regions with relatively high natural resource content will be able to produce certain goods at relatively low cost compared to other regions that have relatively low natural resource content, this condition encourages faster economic growth in the region concerned. Meanwhile, other regions that contain less natural resources will only be able to produce goods with higher production costs, thus weakening their competitiveness.

2. Differences in Demographic Conditions

This demographic condition will be able to affect development disparities between regions because this will affect the work productivity of the people in the region concerned. With better demographic conditions, it will tend to have higher work productivity so that this will encourage further investment increases will increase employment opportunities and economic growth in the region concerned. Conversely, if in a certain area the demographic conditions are not good, this will result in relatively low work productivity of the local community which results in less attractive conditions for investment so that the economic growth concerned will be lower.

3. Lack of smooth mobility of goods and services

Lack of smooth mobility of goods and services can also lead to an increase in development inequality between regions. The mobility of goods and services includes trade activities between regions and either government-sponsored (transmigration) or spontaneous migration, as well as substandard migration, which means that an area's excess labor cannot be utilized by other regions that need it most. Therefore it is not surprising if the inequality of



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development between regions will tend to be high in developing countries where the mobility of goods and services is not smooth and there are still some isolated areas.

#### 4. Concentration of Regional Economic Activities

The presence of a high concentration of regional economic activity in certain areas will clearly affect development disparities between regions. Regional economic growth tends to be faster in areas where there is a large concentration of economic activity. This condition will further encourage the regional development process by increasing the provision of jobs and the level of income of the community. This concentration of economic activity can be caused by several things. First, because there are more natural resources in certain areas, besides that, the presence of fertile land also affects especially the growth of agricultural activities. Second, the decline in transportation facilities for economic activities between regions. Third, Demographic conditions (demography) also influence because economic activities will tend to be concentrated where human resources are available with better quality.

#### 5. Allocation of Inter-Regional Development Funds

It cannot be denied that investment is one of the factors that determine the economic growth of a region. Therefore, regions that can be allocated a larger investment from the government, or can attract more than a private investment will tend to have a faster regional economic growth rate. This condition will of course also be able to encourage the regional development process through more employment opportunities.

### Regional Development Inequality

Income inequality does not only occur during the distribution of income to society but also occurs in development between every region in a country. Williamson (1965) (in Hartono, 2008) researched the relationship between regional inequality and the level of economic development, using economic data from a developed country to a developing country. His findings suggest that the early stages of development, when regional inequality has increased higher and development will focus on certain areas. At a later stage, there is a balance in economic growth between regions and inequality will decrease significantly.

Williamson index (Williamson Index) is a means of measuring development inequality between regions. The Williamson index uses the gross regional domestic product per capita as the basic data, this explains the comparison, namely the level of development between regions and not the level of welfare between groups. The Williamson Index formula is as follows:

$$IW = \frac{\sum (Y_i - Y)^2 f_i}{n Y^2}, 0 < IW < 1$$

information :

IW = Williamson Index

$Y_i$  = Regional per capita income  $i$

$Y$  = Average per capita income for all regions

$f_i$  = Total population of area  $i$

$n$  = The total population of the entire area

The Williamson Index has a coefficient of  $0 < IW < 1$ . If the Williamson Index has decreased to a low value or is getting closer to zero, it explains that there is a small or more evenly distributed inequality, while the number that has increased to a high value explains that there is more widespread inequality. This Williamson index has a weakness, namely it is sensitive to the use of area calculations, meaning that the use of a different size of an area will affect the final result of the calculation, it is even quite often used when measuring regional development inequality.



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### **Definition of Credit**

The definition of credit according to Banking Law number 10 of 1998 is the provision of money or bill which can be equated with it, based on a loan agreement or agreement between the bank and another party which requires the borrower to pay off his debt after a certain period of time with interest (Kasmir, 2007: 73).

According to Kasmir (2007: 76-77), in practice, credit in the community consists of several types, as well as the provision of credit facilities by banks to the public. The provision of credit facilities by banks is grouped into types, each seen from various aspects. This type of division is intended to achieve certain goals or objectives considering that each type of business has certain characteristics. In general, the types of credit extended by banks and viewed from various aspects are:

### *Viewed from the Terms of Use*

The purpose of this type of credit in terms of its utility is to see whether the money is used for main activities or only for additional activities. When viewed from a utility perspective, there are two types of credit, namely:

a. Investment credit

Namely, credit that is usually used for business expansion or building a new project/factory where the usage period is relatively long, and usually the use of this credit is for the main activities of a company. Meanwhile According to the Commercial Bank Report (LBU) at [www.bi.go.id](http://www.bi.go.id) Investment credit is medium/long-term credit given to (prospective) debtors to finance capital goods for rehabilitation, modernization, expansion, or the establishment of new projects, for example for the purchase of machinery, buildings, and land for factories, the repayment of which is from company results. Investment credits issued by banks for the purchase of capital goods are not used up in one business cycle, meaning that the process of disbursing cash and returning it to cash will require a long period of time after going through several cycles (Abdurrahman, 1993). For example, a debtor gets credit to build a factory or other capital goods. The cash spent to buy these capital goods can be collected again after going through the depreciation process according to their economic useful life, in which depreciation funds in the form of out of pocket costs are collected. The main characteristic of investment credit is that the goods to be purchased are capital goods and have a long period of time (Purwanti, 2010).

b. Working capital credit

It is a credit that is used to increase production in its operations. Examples of working capital loans are given to purchase raw materials, pay employee salaries, or other costs related to the company's production process. Working capital loans are loans that are sought to support existing investment loans.

### **Government Capital Expenditure**

Capital expenditure (development) is expenditure aimed at the public interest in the context of increasing the capacity of the community and growing the regional economy. Government spending is prioritized to protect and improve the quality of people's lives to fulfill regional obligations which are realized in the form of improving basic services, education, provision of health service facilities, social facilities, and adequate public facilities and developing social security (Law 32/2004). The role of government spending (G) in developing countries is very significant given the limited ability of the private sector to promote economic growth, therefore the role of government is very important.

Capital expenditure is government expenditure with and to fixed assets or government assets whose benefits are more than one accounting period (Erlina, 2015). The capital expenditures that should be made by local governments include the development and improvement of the education, health, and transportation sectors. The availability of public service facilities makes the community more active



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and enthusiastic in working and with the existence of good facilities, it will increase the amount of investment in each region which will be able to accelerate economic development so that in the end it will reduce the level of inequality that exists.

Capital expenditure is a form of investment in the form of capital expenditure as expenditure/expenses/expenses that provide benefits for more than one year. As a form of public sector investment, capital spending is more focused on government policies with varying time dimensions. The procurement or purchase of assets is used for government activities that are beneficial economically, socially, and with other benefits to increase the government's ability to serve the community (Halim, 2008).

Development Inequality Theory is the development difference between one region and other regions horizontally and vertically which results in uneven development. Inequality in development between central and regional areas is common because there are initial differences in the implementation of development and differences in natural resources between regions (Williamson, 1965, in Hartono, 2008).

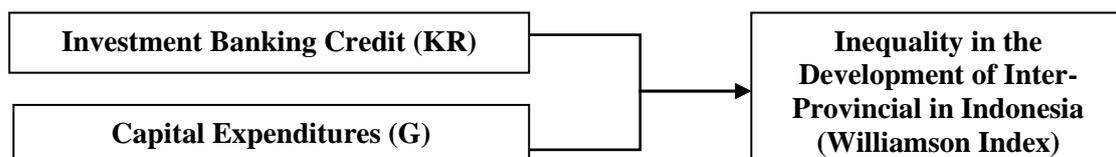
Mauliddiyah's research (2014) on "Analysis of Regional Disparities and Economic Growth (case studies in Batu City 2002-2012)" using the calculation of the Williamson Index and Entropy Theil Index. The results explain that the Williamson Index and Entropy Theil Index have a pattern of increases in the Williamson Index for GRDP showing differences in the greater budgetary allocation, then in the era of regional autonomy followed by greater economic inequality between regions.

In the research of Resosudarmo and Vidyattama (2006) entitled "Regional Income Disparity in Indonesia A Panel Data Analysis". This study uses panel data techniques and general specifications of growth models to estimate the growth of income per capita of provinces in Indonesia in the period 1993-2002 to investigate the determinants of regional regional income disparities. The results explain first, although there are regional income differences, there is a convergence of regional per capita income growth and second, capital savings.

Smith (2000) with the research title "Ethnicity, Economic Polarization and Regional Inequality Southern Slovakia, Growth and Change" by using per capita income as a measure to find the cause of the gap is the difference in productivity with regional GDP divided by the labor force and regional labor force variations. Another quite interesting study is like what Hadi (2001) did on economic disparities between regions by comparing inequality that occurred in Western Indonesia (KBI) and Eastern Indonesia

Research conducted by Nurhuda, Muluk, and Prasetyo in 2013 was entitled "Analysis of Development Inequality (Case Study of East Java Province in 2005 - 2011)" using the Williamson Index analysis tool, the Kuznets Hypothesis and Multiple Regression. Development inequality as the dependent variable and local own-source revenue, general allocation funds, per capita income, human development index as an independent variable. The results of inequality in East Java Province are classified as low because the Williamson Index value is close to zero (0).

Based on the literature review and previous studies, the framework of this study is shown in Figure 2 below.



**Figure 2. Conceptual Framework**

*Source : Author's calculations*



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Based on a literature review and framework, the researcher tries to formulate the following hypothesis:

1. It is suspected that there is a negative influence of Investment Credit on Development Inequality between Provinces in Indonesia.
2. It is suspected that there is a negative influence of Capital Expenditure on Development Inequality between Provinces in Indonesia.

Suspected Investment Credit and Capital Expenditures together influence Development inequality between provinces in Indonesia.

### 3. RESEARCH METHODOLOGY

The data used in this study are secondary data taken from the Central Bureau of Statistics and Bank Indonesia from 2013 to 2019 and related to previous studies. Data analysis techniques used in this study are descriptive analysis techniques and quantitative methods using panel data regression. The following is an analysis of the model used:

$$Y_{it} = \alpha_{it} + \beta_1 KR_{it} + \beta_2 G_{it} + \varepsilon$$

Where :

Y	= Development Inequality (Williamson index)
i	= Province
t	= Time (2013 to 2019)
KR	= Investment Credit
G.	= Capital Expenditure (Government Expenditures)
$\beta_1$ and $\beta_2$	= Multiple regression coefficient values.
$\varepsilon$	= error term

### Operational Definition of Variables

To avoid differences in understanding and to impose strict limits on the variables studied, the operational definitions for each variable in this study are as follows:

#### Dependent Variable

In this study, Development Inequality is used as the dependent variable. Development inequality illustrates the difference in the level of development between regions and not the level of welfare between groups. The measurement of development inequality in Indonesia uses the Williamson index based on measurements using GRDP per capita and the population of provinces in Indonesia. The Williamson Index has a coefficient of  $0 < IW < 1$ . If the Williamson Index has decreased to a low value or is getting closer to zero, it explains that there is a small or more evenly distributed inequality, while the number that has increased to a high value explains that there is more widespread inequality.

#### Independent Variable

##### Investment Credit

Investment credit in this study will use the data on the number of investment credits per year from each province issued by banks for the purchase of capital goods.

##### Capital Expenditures

Capital expenditure in this study will use data on the amount of government capital expenditure per year from each province, namely expenditures for the acquisition of assets (fixed assets) that provide benefits for more than one accounting period. Government capital expenditures are also intended for public interests such as spending on land, spending on equipment and machinery, spending on buildings and buildings, spending on roads, irrigation and networks, and spending on other assets to increase the capacity of the community and grow the regional economy,



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### **Common Effect Method (Pooled Least Square)**

The common effect method is a combination of cross-section and time-series data with the method used for estimation is OLS (Ordinary Least Square). The common effect approach does not pay attention to individual dimensions and time. This method assumes that the nature of the data between provinces is the same in every time period (Widarjono, 2016).

### **Fixed Effect Method**

The fixed effect method is a method that uses a model with each subject having a different intercept (cross-section), but over time the slope will not change for each subject (Gujarati, 2012). The assumption in the fixed effect model is that each subject will have a different intercept but between subjects has the same slope. If there are differences between subjects, a dummy variable will be used (Widarjono, 2016).

### **Random Effect Method**

Random effect analysis method with the model that will be used to overcome the shortcomings of fixed effects models with dummy variables. The use of dummy variables will reduce the degree of freedom, then there will be less efficient in estimating parameters. REM (Random Effect Model) residuals are used with the assumption that there is a relationship between time and individuals. The REM assumption explains that there are differences in the intercept of each individual in the random variable. The requirements that must be met for the random effect model, namely the total cross-section must be greater than the total research variables (Widarjono, 2016).

### **Final Model Selection**

An overview of the final model selection to determine the right model for a study using panel data analysis method. There are two techniques for estimating the best model, namely Common Effect, Fixed Effect, and Random Effect. The first test is the Chow Test and the second is the Hausman Test.

#### Chow Test

A comparison between the common effect and fixed-effect models are used the Chow test to find out the right model in the study (Widarjono, 2016). The Chow test has a hypothetical form which is as follows:

H0: Common Effect Model

H1: Fixed Effect Model

Hypothesis H0 will not be accepted if the P-value is smaller than the value  $\alpha$ . Meanwhile, H0 will be accepted if the P-value is greater than the value of  $\alpha$ . The significance value of  $\alpha$  is 5 percent.

#### Hausman Test

The Hausman test will have results that are guided by the degree of freedom of  $k$ , where  $k$  is all independent variables by looking at the Chi-Square statistical distribution. If the critical value is smaller than the Hausman statistical value, the best model is the Fixed Effect model, otherwise, if the critical value is greater than the Hausman statistical value, the best model is the Random Effect model (Widarjono, 2016).

The Hausman test hypothesis has the following form:

H0: Random Effect Model

H1: Fixed Effect Model

H0 is not accepted if the P-value is smaller than the significance value. Meanwhile, H0 will be accepted if the P-value is greater than the significance value  $\alpha$ . Value  $\alpha$  using a value of 5 percent

### **Classic assumption test**

#### 1. Linearity Test

If the value for Prob. F count is greater than the level  $\alpha$  0.05 (5%) then the regression model fulfills the linearity assumption and vice versa if the value of Prob. F count is less than 0.05, so the model



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does not meet the linearity assumption. Prob Value. F count can be seen in the F-statistic row Probability column.

### Normality test

The normality test is intended to test whether the residual values that have been distributed in the regression model are normally distributed or not. To detect the normality of the data, it can be done by looking at the Jarque-Bera coefficient and its probability.

If the JB value is not significant (less than 2), then the data is normally distributed.

If the probability is greater than the significant level or  $\alpha$ , then the data is normally distributed (the null hypothesis is that the data is normally distributed).

### Multicollinearity Test

Multicollinearity, according to Frisch, states that a regression model is said to be subject to multicollinearity if there is a perfect or exact linear relationship between some or all of the independent variables of a regression model. As a result, it will be difficult to see the effect of the explanatory variables on the variables described. The occurrence of multicollinearity is seen from the correlation between the independent variables, if the correlation coefficient is more than 0.80 then there is multicollinearity in the research method.

### Autocorrelation Test

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the confounding error in period  $t$  and the error in period  $t-1$  (before). If there is a correlation, it is called an autocorrelation problem. A good regression model is a regression that is free from autocorrelation.

Autocorrelation symptoms were detected by performing the Durbin Watson ( $d$ ) test. The calculation result of Durbin Watson ( $d$ ) is compared with the stable at  $\alpha = 0.05$ . Tabled has two values, namely the upper limit value ( $d_u$ ) and the lower limit value ( $d_L$ ) for various values of  $n$  and  $k$ .

### Heteroscedasticity Test

Heteroscedasticity is a condition where the variance of the residuals inequality occurs in the regression model. Good data is homoscedasticity data. Homoscedasticity occurs when the variants of the variables in the regression model have the same or constant value. If the variance from the residual of one observation to another is constant, it is called heteroscedasticity.

The method used in the heteroskedastic test is the Breusch-Pagan method, provided that if the Chi-Square probability value is not statistically significant at the 5% degree, there is no heteroscedasticity in the model. Conversely, if the Chi-Square value is statistically significant at the 5% degree then there is a heteroscedasticity problem.

## **Test of Model Appropriateness Statistics**

### **1 Simultaneous Test (F)**

This test is carried out to see the dependent variable is significantly influenced by the independent variable. If the F-count is smaller than the F-table, then  $H_0$  will be accepted, meaning that simultaneously the independent variable does not influence the dependent variable (not significant), so that the dependent variable changes unable to explain the changing independent variable, where the level of significance that is used is 5 percent.

### **2. Test t**

This test sees the results of the t-test for each independent variable capable of having a significant effect on the dependent variable. Then, it will be seen whether all the independent variables can explain the changes experienced in the dependent variable in real terms.

This test has a hypothesis if  $H_0: \beta_1 = 0$  there is no effect,  $H_1: \beta_1 > 0$  between variables has a positive effect,  $H_1: \beta_1 < 0$  between variables has a negative effect. The coefficient of the first independent variable is explained by  $\beta_1$ , namely the value of the hypothesis parameter. Each value of  $\beta$  is



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considered zero, meaning that there is no effect of variable X1 on Y. If the t-count is greater than the t-table, then Ho will be accepted or have a significant effect and vice versa, t-table Ho will be accepted or not have a significant effect. The decision to accept the hypothesis will be proven or not so that the t-test is carried out, where the significant level used is 5 percent.

### 3. Coefficient of Determination (R2)

The regression analysis model used in each study must go through the measurement of the Determinant Coefficient (R2) to determine the accuracy of the model. In the calculation of the analysis, if the R2 value approaches the number 1, the independent variable has a closer relationship with the dependent variable, thus it can be determined that the use of the research model used is accurate. The determination of a model is good, that is, the model can provide a minimum residual limit, which means that the variation of the independent variable can explain the dependent variable with an  $\alpha$  of above 0.75 (Gujarati, 2003) so that the correlation received will be high between the dependent variable and the independent variable. However, in some cases, there will be a coefficient use of one independent variable in the model.

## 4. RESULTS AND DISCUSSIONS

The research regression equation is as follows:

$$Y = 0.3338 + 0.0141KR - 0.2393G + e$$

Based on the equation of the regression results above, it can be analyzed the effect of each independent variable on the dependent. The Development Inequality variable, Investment Credit has a positive effect on Development Inequality while the Capital Expenditure variable hurts Development Inequality.

The coefficient results can be interpreted as follows:

1. The constant value ( $\beta_0$ ) = 0.3338 can be interpreted if the Investment Credit and Capital Expenditure Credit is considered to be fixed or zero, then the Development Inequality value is 0.333834
2. The coefficient value ( $\beta_1$ ) = 0,0141 means that the Investment Credit variable has a positive effect on Development Inequality if an Investment Credit increase of 1% will increase Development Inequality by 0,0141 percent.
3. The coefficient value ( $\beta_2$ ) = - 0,2393 means that the Capital Expenditure hurts Development Inequality, if there is an increase in Capital Expenditure by 1% it will reduce Development Inequality by 0,2393 percent.

### Estimation Results of Model Selection Testing

#### 1. Chow Test / Redundant Test

Chow Test aims to find out whether the Common Effect or Fixed Effect Model (FEM) model to be selected for data estimation. The decision-making criteria are as follows:

If probability  $< \alpha = 0.05$ , then the better model is Fixed Effect

If Probability  $> \alpha = 0.05$  then the better model is Common Effect

Based on the results of the Chow Test, the following is obtained:

**Table. 1. Chow Test Results**

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	188.804266	(33,198)	0.0000
Cross-section Chi-square	814.375183	33	0.0000

*Source: Processed Data, 2020*

In table 1 the results of the Chow test show that the probability is smaller than  $\alpha = 0.05$ , so from this study, the better model to use is the Fixed Effect Model.

## 2 Hausman Test

After the chow test is carried out on the panel data estimation, it is followed by the Hausman Test. Hausman Test is a statistical test to determine whether a fixed effect or random effect model is more appropriate for panel data regression. The result of testing using this test is knowing which method should be chosen. The criteria for decision making are as follows:

If probability  $< \alpha = 0.05$ , then the better model is Fixed Effect

If Probability  $> \alpha = 0.05$  then the better model is the Random Effect

Based on the test results, the following results were obtained:

**Table 2. Hausman Test Results**

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	18.530487	2	0.0001

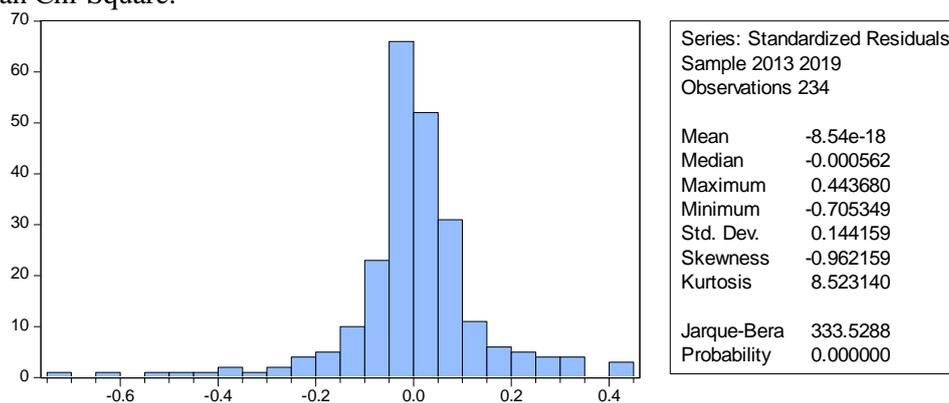
*Source: Processed Data, 2020*

In Table 2, the results show that the probability is smaller than  $\alpha = 0.05$ , so from this study, the better model to use is the Fixed Effect Model.

## **Classic assumption test**

### 1. Normality Test

The normality test in the regression model is used to test whether the residual value is normally distributed or not. A good regression model is one that has a residual value that is normally distributed. The decision-making criterion is that the data is normally distributed if the Jarque-Bera is smaller than Chi-Square.



*Source: Processed Data, 2020*

**Figure 3. Normality Test**

From the histogram above the JB value is 333.52 while the Chi-Square value by looking at the number of independent variables is 2 independent variables and with a significance of 0.05, the Chi-Square value is 5.991, which means that the JB value is greater than the Chi-Square value ( $333.52 > 5.991$ ). this shows that the data in this study were not normally distributed.



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## 2. Multicollinearity Test

One way to determine the multicollinearity in a model is to look at the correlation coefficient of the output results. If there is a correlation coefficient that is greater than 0.9, then there is a symptom of multicollinearity. The following is the result of the correlation coefficient output which can be seen from the following table

**Table 3. Multicollinearity Test Results**

	LOG(KR)	LOG(G)
LOG(KR)	1	0.8175722195156024
LOG(G)	0.8175722195156024	1

*Source: Processed Data, 2020*

Based on the test of the correlation coefficient above, each variable has a coefficient value  $<0.9$ , it can be concluded that this study does not experience multicollinearity problems.

## 3. Heteroscedasticity Test

In this study, the Park Test was used to see whether there was a heteroscedasticity problem in the study. Research is said to have a heteroscedasticity problem if the error or residual of the observed model does not have a constant variant from one observation to another.

**Table 4. Heteroscedasticity Test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(Y)	-0.026245	0.007247	-3.621661	0.0004
LOG(KR)	0.002561	0.008271	0.309567	0.7572
LOG(G)	-0.002118	0.009153	-0.231433	0.8172

*Source: Processed Data, 2020*

Based on table 4, it can be seen that there is no heteroscedasticity problem. This is because the probability of both variables is more than 0.05. Where the probability value of Investment Credit is 0.7572 greater than 0.05, and Capital Expenditure is 0.8172 greater than 0.05.

## Statistical Testing

### 1. F test

Based on Table 4.10 shows that with a significance level of 0.05 with  $df_1 = 3-1 = 2$   $df_2 = 238-3 = 235$  obtained F table = 2.62 and the calculated F value = 230.6896 thus  $F_{count} > F_{table}$  ( $230.6896 > 2.68$ ) with a significance of 0.000, much smaller than the significant level used in this study, namely 0.05 or 5%. Thus, it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted, which means that investment credit and capital expenditure have a significant effect on Development Inequality

### 2. t-test

This test is conducted to see whether each independent variable has an effect on the dependent variable or to determine the level of significance of the independent variable. The t-test can be seen by comparing the t-statistic value with the t-table or comparing the probability of the t-statistic with a significance level ( $\alpha = 5$  percent).

$$\alpha = 0, 05/2 = 0.025 \text{ (2-way test)}$$

$$df (nk) = 238 - 3 = 235$$

$$t\text{-table} = 1.960 / -1,960$$

$H_0$  is accepted if  $-t_{count} \geq -t_{table}$  or  $t_{count} \leq t_{table}$  (there is no significant effect between the independent variable and the dependent variable)



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$H_0$  is rejected if  $-t \text{ count} < -t \text{ table}$  or  $t \text{ count} > t \text{ table}$  (there is a significant influence between the independent variable and the dependent variable)

Based on the regression model estimation results in Table 4.10, it shows that  $t\text{-count} = 0.3062 < t\text{-table} = 1.960$  for the investment credit variable, meaning that  $H_0$  is accepted and rejects  $H_1$ . Thus, investment credit does not have a significant effect on Development Inequality in Indonesia.

Based on the results of the regression model estimation in Table 4.10 it shows that  $t\text{-count} = -3.9100 < t\text{-table} = -1.9084$  for the capital expenditure variable, meaning that  $H_0$  is rejected and  $H_1$  is accepted. This explains that there is a significant and negative influence with a negative  $t\text{-count}$ , meaning that if capital expenditure increases, the level of inequality in development in Indonesia will decrease.

### 3. Coefficient of Determination

Based on the value of the coefficient of determination ( $R^2$ ) shown in Table 4.11, it shows that the coefficient for the determination of development inequality between provinces in Indonesia is 0.976064 or 97.60 percent, which means that 97.6 percent of the Investment Credit and Capital Expenditure variables can explain variations in Development Inequality. The rest (2.40 percent) is explained by other variables that are not included in the regression model.

**Table 5. Summary of the Data Regression Results Panel Model**

Variable	Coefficient	Std. Error	t-Statistics	Prob
C	0.333834	0.687069	0.485881	0.6276
KR	0.014199	0.046357	0.306294	0.7597
G.	-0.239381	0.061222	-3.910050	0.0001
R-squared	0.976064	Mean dependent var		-3.149622
Adjusted R-Squared	0.971833	S.D dependent var		0.931788
SE of Regression	0.156382	Sum squared resid		4.842148
F-Statistics	230.6896	Durbin-Watson stat		0.765833
Prob (F-statistic)	0.000000			

Source: Author's Calculation (2020)

### Relationship of Investment Credit to Development Inequality.

Based on the data and analysis that has been done, it shows that investment credit shows a positive relationship with a coefficient of 0.014 but does not have a significant effect on development inequality between provinces in Indonesia. This is because the flow of investment credit funds does not directly affect the level of development of inequality in Indonesia.

Investment credit to finance the purchase of fixed capital goods, generally with a medium and long term. Credit in the economy plays an important role in economic growth. Productive loans encourage economic growth because they are aimed at establishing, modernizing, rehabilitating, and expanding businesses. Development carried out by the government and all relevant agencies on an ongoing basis will provide increased value to economic growth

### The Relationship of Capital Expenditures to Development Inequality.

Changes in the capital expenditure variable have a significant effect as evidenced by the probability value of 0.0001, which is smaller than the degree of significance  $\alpha = 5\%$  so that the total government capital expenditure has a negative effect with a coefficient value of -0.2393.

Capital expenditure has a significant negative effect on development inequality. This shows that with the increase in capital expenditure, it will have an impact in the coming period, namely increasing community productivity and increasing investors will increase local revenue, resulting in a decrease in development inequality. The large allocation of capital expenditure, one of which is used



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for capital formation, supports economic growth. Also, government purchases of goods and services become income for households and result in a multiplier effect by increasing people's purchasing power.

### 5. CONCLUSION

Research results of empirical testing in this study the following conclusions can be drawn:

1. Government capital expenditure and investment banking credit together (simultaneously) have a positive effect influence on development inequality.
2. Based on the value of F count = 230.6896, thus  $F_{count} > F_{table}$  ( $230.6896 > 2.68$ ) with a significance of 0.000 much smaller than the significance level used in this study, namely 0.05 or 5%. Thus, it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted, which means that investment credit and capital expenditure have a significant effect on Development Inequality. Based on the value of the coefficient of determination ( $R^2$ ) of 0.976064 or 97.60 percent, it means that 97.6 percent of the investment credit and capital expenditure variables can explain variations in development inequality. The rest (2.40 percent) is explained by other variables that are not included in the regression model.

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## MEASURING CELEBRITY ENDORSER CREDIBILITY: THE SOURCE MODEL APPROACH

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### Abstract

**Purpose:** This study aims to measure the credibility of the Endorser. These measurements are important in relation to the Endorser being able to perform its job properly.

**Research Methodology:** The research begins with the selection of the research design, the determination of the measured variables to answer the problem formulation, then the determination of the research sample is taken purposively. To measure the indicators of celebrity credibility, an appropriate research instrument was designed using a structured list of questions. The results of data collection were processed with a statistical computer program, namely SPSS to obtain research answers.

**Results:** This study found that the X1.5I (sexy) indicator does not group into the Attractiveness variable.

**Limitations:** This research needs to combine with other endorser measurement instruments.

**Contribution:** This research adds to the field of marketing, especially in advertising. Endorsers one of the advertising message strategies to reach appropriate targets. A definite instrument is needed to measure the credibility of an endorser.

**Keywords:** *Celebrity Endorser, Attractiveness, Trustworthiness, Expertise.*

## 1. INTRODUCTION

Marketing communication believes that designing a communication strategy that can help a company increase its competitive advantage for its products and services is very important. These activities are aimed at supporting other elements in the marketing mix such as product design, branding, packaging, pricing and location decisions (physical distribution and distribution channels) in order to have a positive impact on marketing. Various attempts have been made to achieve this, one of which is using celebrity endorsers as part of the strategy (Erdogan, 1999). A celebrity endorser will carry out an important role as a spokesperson, representing companies delivering marketing communications.

The selection of a spokesperson in a public communication is important, even though it is a difficult decision. Advertisers are competing to design the most attractive communication strategies so that they can differentiate them from competitors' products in hopes of influencing purchases. Every time consumers are exposed to various advertising exposures which at a certain level will be considered annoying. Advances in information technology add to the reach of consumers, so that it can be even more disturbing. According to Atkin and Block (1983) in Kamins (1989), there are several reasons why famous endorsers might be influential. First, an ad that is endorsed by a spokesperson such as a celebrity will attract attention in a messy message flow situation. Second, celebrities are traditionally seen as highly dynamic individuals with qualities that are both attractive and fun. However, their credibility and trust are still questionable.

A spokesperson will represent an entity to convey the message. The first messenger to see is how credibility it is. So far, the credibility of the endorser is important, because it will affect the image of the product or brand, and can even negatively affect the value of the company. An example of how a



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Tiger Woods (a famous golf athlete), had a car accident and was proven to have an infidelity scandal. Several sponsors such as Accenture, AT&T, Gatorade (i.e., PepsiCo), and Gillette (i.e., Procter and Gamble) decided not to use their services as spokesperson anymore. This not only affects the credibility of ad stars, but also affects firm value (Bartz et al., 2013).

Ohanian (1990b) developed a criterion for measuring the credibility of celebrity endorsers called the source model. At that time, the measurement of the effectiveness of celebrity endorsers was still mixed, various researchers looked from various points of view to measure it. In retrospect, since the 1950s, these constructs have emerged with measurements of sources of confidence from Hovland and Weiss (1951), and continued with product compatibility and meaning transfer from endorsers to consumers (Friedman et al., 1976; Kamins, 1990; McCracken., 1989). Ohanian constructs the credibility of the endorser and its constituent items. Furthermore, conducting several studies to test the construct validity and discriminant validity of these items. The test results show that there are three factors to measure the credibility of an endorser, namely: trustworthiness, expertise, and attractiveness.

The trust paradigm in communication is the level of trust and acceptance of the messenger (speaker) and the message that is carried. The core concept of trust is the viewer's trust in the speaker. In the context of advertising, an advertisement star will carry a message from the company, so that the message is accepted, the viewer's trust in the ad star is important. Expertise shows that someone has knowledge of the advertised product and this knowledge is obtained based on long-term experience (Bower & Landreth, 2001; Hughes et al., 2019).

Generally, advertising is made to be aimed at the sense of sight, such as television advertisements and posters, so that the intended attraction is physical attraction. The selection of commercials is generally based on commercial stars who have a good-looking appearance. The easy way companies take is to use well-known, beautiful artists. Artists like this generally also have a mass base, so in addition to using their artistry to help increase product awareness of products, and they may also attract potential buyers with the ability to persuade them (Erdogan, 1999).

The credibility of the ad star will reflect whether the selection of the ad star is correct. There are several measures of credibility, which yield mixed results. To measure these constructs, tested instruments are needed. Ohanian (1990b) has built and tested the construct

## 2. LITERATURE REVIEW

### Celebrity endorser

Celebrities have endorsed products since the late nineteenth century. Queen Victoria, who "advertised" Cadbury's Cocoa products is an example of the use of famous people in advertising. The famous person in question is someone who has a high level of public recognition. The modern era of the use of commercials is that the emergence of cinema adds to the scope of legitimacy of the advertising technique, although its current popularity also depends on the growth of commercial radio in the 1930s and commercial television in the 1950s. At that time, the supply of 'stars' (ie potential supporters) was limited, as it was assumed that 'stars' had to invest their entity in advertising media, such as television (Erdogan, 1999).

Advertising and marketing managers spend big bucks getting celebrities to endorse their products. Some see it as an effective form of advertising as evidenced by the increasing number of celebrity-supported advertisements (Waldt et al., 2007). This strategy appears to be without risk, but because of the dynamic communication strategy, there are also potential dangers. Individuals can change, and supportive relationships can deteriorate. In other words, the strategy of using celebrities can be a



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double-edged sword, one that can bring benefits or even put a company in jeopardy. To anticipate this, studies related to how celebrities can contribute to products were carried out (Erdogan, 1999).

It is very important to consider the proper match between the celebrity and the target audience of the product. An associative relationship occurs when there is a match between a product and a celebrity and consumers will associate the celebrity with the endorsed product, and vice versa (Till & Shimp, 1998). McCracken (1989) developed a model that describes the process of transferring meaning between products and endorsers. The congruent disposition of celebrities is eventually transferred, through the consumption of the product, and then eventually adopted by consumers (Byrne et al., 2003).

### Source of credibility

Source credibility is a general term which means the positive characteristics of the communicator that have an impact on receiving the message. Understanding and defining sources of credibility in advertising is sometimes confusing because of the many operationalizations that have appeared in the literature (Ohanian, 1990b). For example, in experimental studies, source credibility is sometimes considered as a categorical variable, such as individuals with low and high credibility. Other approaches sometimes to describe phenomena include the use of labels, such as ethos, prestige, reputation, status, authority, competence and others. Research on the topic of celebrity endorsers is divided into two main models, namely the source-credibility model and the source attractiveness model. According to the results of a study developed from these two models, endorser's credibility consists of two factors, namely: expertness and trustworthiness. See table 1

**Table 1. Source credibility scales**

Author	Dimensions measured	Number of items	Reliability checks	Validity checks	Scale type	Method of analysis
Appelbaum and Anatol (1972)	Trustworthiness	13	No	No	SD	--
	Expertness	10				
	Dynamism	5				
	Objectivity	3				
Berlo, Lemert and Mertz (1969)	Safety	5	No	No	SD	Factor analysis
	Qualification	5				
	Dynamism	5				
Bower and Phillips (1967)	Trustworthiness	7			SD	Factor analysis
	Competence	5				
DeSarbo and Harshman (1985)	Expertness	4	No	No	SD	--
	Attractiveness	2				
	Trustworthiness	1				
	Likeability	2				
	<b>Add. Dimension</b>					
	Evaluate	-				
	Potency	-				
Activity	-					
McCroskey (1966)	Authoritativeness	6	Yes	Yes	SD	Factor analysis
	Character	6				
	Authoritativeness	23	Yes	Yes	LIK	Factor analysis
	Character	20				
Simpson and Kahler	Beliability	8	No	Limited	SD	Factor analysis
	Dynamism	6				
	Expertness	7				
	Sociability	3				
Whitehead (1966)	Trustworthiness	18	No	No	SD	Factor analysis
	Competence	4				
	Dynamism	3				
	Objectivity	3				
Wynn (1987)	Expertness	12	No	Limited	SD	Factor analysis
	Dynamism	6				
	Believability	3				
	Sociability	3				

Sumber: Ohanian (1990a)



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- **Trustworthiness**

The trust paradigm in communication is the level of trust and acceptance of the messenger (speaker) and the message that is carried. The core concept of trust is the viewer's trust in the speaker. In the context of advertising, an advertisement star will carry a message from the company, so that the message is accepted, the viewer's trust in the ad star is important. Some research supports the effects of belief and behavior change. For example in the context of communication that conveys fear (fear arousing communications). The results also show that when the messenger has high trust, the message conveyed is more effective (Ohanian, 1990b).

The essence of trust is that the concept of "Source credibility", as mentioned by Hovland, Janis and Kelley (1953), is the same concept, namely: the listener's trust in the speaker. The results of the study show that, if communicators are perceived as being highly trusted, then message opinion will be more effective than non-opinionated communication in making attitude changes. However, when trust is low, the relationship is insignificant (Ohanian, 1990).

McGiinie and Ward (1980) in Ohanian (1990b) manipulate the skills and beliefs of message sources to assess the effect on each component at the level of persuasion of the communicator. The result is a source that is perceived as either an expert or a trusted one resulting in many changes in opinion. The fact is that a trusted communicator is more persuasive than whether he is an expert or not. In another fact, Ohanian (1991) found that the trustworthiness (truthworthiness) of celebrities was not significantly related to consumer desires to buy endorsed products.

- **Expertise**

Expertise shows that someone has knowledge of the advertised product and this knowledge is acquired based on long-term experience. Research showing source expertise in persuasive communication generally indicates that sources of expertise have a positive impact on behavior change. Sources of expertise, will show how obedient the target audience is to the message content. For example, Crisci and Kassinove (1973) investigated the skill level of the communicator ("Dr" vs. "Mr.") and the strength of suggestions (positive and neutral) on obedience behavior. The results of these studies indicate that respondents adhere to direct recommendations from a variety of expertise.

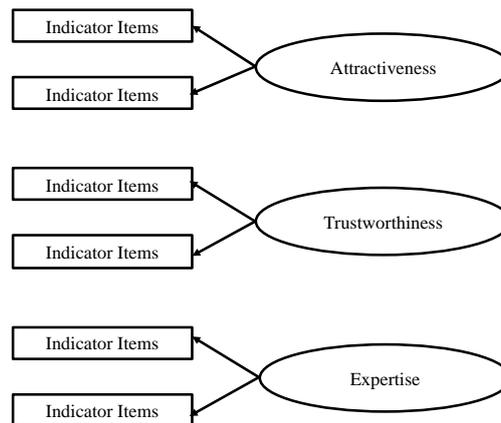
Expertise is defined as the extent to which the communicator is considered to be the source of valid statements. This variable refers to the knowledge (knowledge), experience (experience) or expertise (skills) possessed by the endorser. Expertise is the second dimension of source credibility defined by Hovland, Janis and Kelley (1951). To measure this dimension, adjectives are generally used: "trained-untrained", "informed-not-informed", and "educated-uneducated".

- **Attractiveness**

Generally, advertising is made to be aimed at the sense of sight, such as television advertisements and posters, so that the intended attraction is physical attraction. The selection of commercials is generally based on commercial stars who have a good-looking appearance. Even though it is not rational, this is natural, because naturally everyone likes an attractive appearance. Some of the leading research bodies in the field of advertising and communications suggest that physical attractiveness is an important cue for an individual's assessment of others. Although much research has been devoted to the construct of physical attractiveness, the actual issues raised are far from clear. This shows that the construct of physical attraction is not uni-dimensional. Studies related to physical attractiveness have a more positive impact on the products with which they are associated.

### Research Framework

Based on the background and relevant previous research, the following research framework can be described:



**Figure 1. Research Framework**

### 3. RESEARCH METHODOLOGY

#### Research methods

The research design in this study will be compiled based on the six layers of research onions introduced by Saunders and Tosey (2013). Starting from this research using philosophical stances in positivism, where researchers seek explanations and predict what happens in the social world, there are patterns and relationships, for this a hypothesis is built and tested. The approach used is deductive, where the explanation will start from the general to the specific. The strategy used is a survey, where the researcher will design a systematic set of questions to answer the research problem. The choice of method used is the mono method, which only uses quantitative techniques. For the time horizon, this study uses cross sectional or the data is taken at a certain time. Techniques and data collection will be tailored to the needs of the research.

#### The scope of research

This research focuses on measuring the characteristics contained in an individual (celebrity endorser), thus the research subject is defined so that it is in accordance with the research. The research subject is a celebrity endorser, namely "every individual who enjoys public recognition and represents on behalf of a consumer goods product and appears with him in advertisements" (McCracken, 1989). The measurement of the subject is based on the source model which contains three main factors used to measure the credibility of celebrity endorsers.

The research subjects examined in this study are celebrity endorsers who are supporter of mobile phone products. There is a tendency in Indonesia to use celebrities in handphone products. Mobile is a consumer product, which has many segments, one of which is the lifestyle. The choice of celebrity endorser based on lifestyle is appropriate because it will be associated with the entity of the endorser. Generally, celebrities or famous people who are used as supporters are artists or singers, where individually they have awareness among their fans.

Celebrity endorser subjects that will be measured in this study, Oppo Handphone by Isyana Saraswaty.



**Figure 2. Isyana Sarasvati (Oppo)**

Link Ad: <https://www.youtube.com/watch?v=NTBFU67ygqc> (Isyana Sarasvati)

## Population and Sample

The population in this study are people who have been exposed to advertisements supported by celebrity endorsers under study. Endorsers studied is celebrity who advertise handphone products which are the subject of research. In detail, the research subject will be discussed in the research subject section. The population in this study is the general public who has been exposed to the types of advertisements starring commercials who are the objects of this study.

The size of the number of samples taken will consider the minimum need for statistical testing. In this study, we will prioritize the quality of the sample where they have watched the ad and know which celebrity endorsers are the stars of the advertisement. The sampling method used is non-probability sampling, where each member of the population does not have the same chance of being selected as the sample. The sample selection used purposive sampling, which is selected according to the research needs.

## Construct Measurement

Research variables are an important part of this research which will be tested. The variables (or constructs) used in this study are three factors from the source of credibility which consists of three constructs.

**Table 2. Operational Definition of Variables**

No	Variable	Definition	Indicator	Reference's	Measurement
1.	Trustworthiness (The source of Credibility)	Sincerity, integrity and trust in endorsers	Dependent	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Trust	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Reliable	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Sincere	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Trusted	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
2.	Expertise (The source of Credibility)	Specific abilities in certain fields of activity	Expertise	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Experience	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Knowledge	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval



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No	Variable	Definition	Indicator	Reference's	Measurement
				1951; Ohanian, 1990a)	
			Quality	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
			Skilled	(Hovland & Weiss, 1951; Ohanian, 1990a)	Interval
3.	Attractiveness (The Source of Attractiveness)	Physical appearance that can attract viewers' attention	Appearance	(Ohanian, 1990a)	Interval
			Classy	(Ohanian, 1990a)	Interval
			Beautiful	(Ohanian, 1990a)	Interval
			Elegant	(Ohanian, 1990a)	Interval
			Sexy	(Ohanian, 1990a)	Interval

Source: Ohanian (1990a)

### Analysis Technique

The first step is to prepare a research instrument. The instrument is a research instrument developed by Ohanian (1990b), then a data collection procedure is carried out. Respondents will be shown advertisements related to research, namely advertisements supported by celebrity endorsers. Respondents will be shown the ad, for a duration of approximately 30-60 seconds. After watching the advertisement, the respondent will fill out a prepared questionnaire. Respondents independently fill in and send back answers according to the instructions for processing. After the data collection was sufficient, the data finalization and sorting process was carried out.

The data that has been recapitulated is then recoding according to the needs of the analysis software. This research will use statistical analysis software SPSS and AMOS. After the data is coded and inputted into the software, then the analysis is carried out. The main analysis in this research is factor analysis and correlation which is then reprocessed into validity and reliability analysis to test whether the results of these instruments are close to the results of previous instrument testing.

## 4. RESULTS AND DISCUSSIONS

### Respondent Profile

**Table 3. Profile of Respondents**

Variable	Category	Frequency	%
Gender	Male	71	35.3 %
	Women	130	64.7 %
	<b>Total</b>	<b>201</b>	<b>100%</b>
Age	<20 years	45	22.4%
	20-30 years	87	43.3%
	31-40 years	35	17.4%
	>40 years	34	16.9%
	<b>Total</b>	<b>201</b>	<b>100%</b>
Education	Under High School	2	1 %
	High School	88	43.8%
	Bachelor	50	24.9 %
	Postgraduate	61	30.3 %
	<b>Total</b>	<b>201</b>	<b>100%</b>

Source: Output Data, 2020



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## Respondent behavior

**Table 4. Respondent Behavior**

Variable	Category	Frequency	%
Type of Event	News	76	37.8%
	Talk shows	66	32.8 %
	Soap Operas	11	5.5%
	Celebrity News	12	6.0%
	Sporting Event	6	3.0%
	Other	30	14.9%
	<b>Total</b>		<b>201</b>
The average time watching	<1 hour	71	35.3%
	1-2 hour	40	38.3%
	3-4 hour	12	19.9%
	5-6 hour	1	6%
	>6 hour	1	0.5%
	<b>Total</b>		<b>201</b>
Changing Channels When Ad	Yes, I will tell others	106	52.7 %
	Never	95	47.3%
	<b>Total</b>	<b>201</b>	<b>100%</b>
Interested about products	Yes, I am interested in trying the product	<b>75</b>	<b>37.3%</b>
	No, I would not necessarily directly interested in these products	<b>126</b>	<b>62.7%</b>

Source: Output Data, 2020

## Data analysis

The data analysis stage starts from testing the consistency of the instrument where there are items and constructs. The implementation is carried out by factor analysis, then the results are processed to obtain the factor loading value. The loading factor value will be used as a benchmark in identifying items and grouping them. The details of the analysis procedure are as follows:

- Tests are carried out by confirmatory factor analysis, where the number of factors has been determined. The next items will be matched with these forming factors.
- The loading factor value will be used to determine the AVE (Average Variance Extracted) value. The AVE value is used to measure the amount of variance that can be captured by the construct compared to the variance caused by the measurement error. AVE value must be greater ( $> 0.5$ ).
- Then get the choreality value to compare with items between factors. This is to perform convergence and discriminant validity testing procedures.
- The result of data processing is testing indicators or scales. Is it according to the instrument referred to or not.



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**Table 5. Validity Construct**

Variable	Item	Component			Total	AVE	Akar AVE	Cronbach alpha
		1	2	3				
Attractiveness	X1.1I			,678	3,057	0,764	0,874	0,897
	X1.2I			,791				
	X1.3I			,819				
	X1.4I			,769				
Trustworthiness	X1.5I		<b>,640</b>		4,285	0,714	0,845	0,918
	X2.1I		,643					
	X2.2I		,760					
	X2.3I		,777					
	X2.4I	<b>,515</b>	,745					
X2.5I	<b>,515</b>	,720						
Expertise	X3.1I	,737			3,815	0,763	0,874	0,945
	X3.2I	,778						
	X3.3I	,774						
	X3.4I	,781						
	X3.5I	,746						

Source: Output Model Summary, SPSS 22, 2020

**Table 6. Correlation**

	Att	Tr	Exp.
Att	1	0,666	0,717
Tr		1	0,776
Exp			1

Source: Output Model Summary, SPSS 22, 2020

**Table 7. Validity Discriminant**

	Att	Tr	Exp.
Att	0,874	0,666	0,717
Tr	0,666	0,845	0,776
Exp	0,717	0,776	0,874

Source: Output Model Summary, SPSS 22, 2020

Based on table 5, the X1.5I variable is grouped in component 2 based on the resulting loading value. This indicator should be clustered in component 3 like the construct developed by Ohanian (1999). This can occur because of the unclear definition of "Sexy" which is interpreted by the respondent. Respondents argue that sexy is reflected in the physical appearance of the endorser. On the other hand, the advertisement that is displayed is considered not representative of the characteristics of the section on the handphone ad that is asked to the respondent. For other indicator components, they are grouped according to the characteristics of each variable based on the resulting loading value.

### 5. CONCLUSION

From the analysis, it is found that the sexy indicator on the attractiveness variable is grouped into different components so that there is closeness to other variables. Researchers need to clearly define each question item. The company also needs to match the type of product advertised with the endorser.

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## ROLE OF THE SHARIA INDUSTRY IN INCREASING ECONOMIC GROWTH WITH THE IMPLEMENTATION OF ICT AS A MODERATING VARIABLE

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### **Abstract**

The development of the world economy which is increased significantly causes the business competition to be tighter so that every company must be able to compete in order to grow into a better company. The sharia industry is one of the industries that contribute to economic growth in Indonesia. The reason is not only because the population of Muslims in Indonesia is the largest in the world, but the awareness of the non-Muslim community about the importance and health of using sharia products is another reason. This research analyzes how big the sharia industry is divided into three parts: halal food, sharia finance, and halal tourism for economic growth. It is not enough for the sharia industry; this study also uses ICT as a moderating variable. The substance of the use of IT in this digital era needs to be another consideration in analyzing the impact on economic growth.

*Keywords: Islamic industry, halal food, Islamic finance, halal tourism, economic growth, ICT*

### **1. INTRODUCTION**

Islam is a religion of rahmatan lil 'alamin which regulates all aspects of human life. According to Irawan (2014) Islam is a perfect religion because it is able to control all aspects of human life, not only spiritual aspects but also muamalah which are very important and are carried out directly in the life of society as a whole. Although most often used to describe food and drink, halal can refer to objects or activities. Then, Islam calls what is not permitted as haram. The Islamic industry is a real economic sector in developing countries or developed countries. The demand for halal products not only preferences for Muslims but also non-Muslim consumers. For them, halal food is healthy food that is safe for consumption. Therefore, currently the halal industry is one of the industries that have a high potential to develop better.

Several sectors that are currently in a good growth trend in the sharia industry or the halal industry are the Islamic finance, food and tourism sectors. Islamic finance is a financial system that is implemented by referring to Islamic principles and the basis of Islamic law as a guideline. Islamic finance does not only apply to the systems offered in the form of Islamic principles, but also includes the products offered. One of the sharia financial products is the sharia-based banking industry sector. In Islamic banking, funds are limited to financing or storage of usury-free funds, and use the term profit sharing.

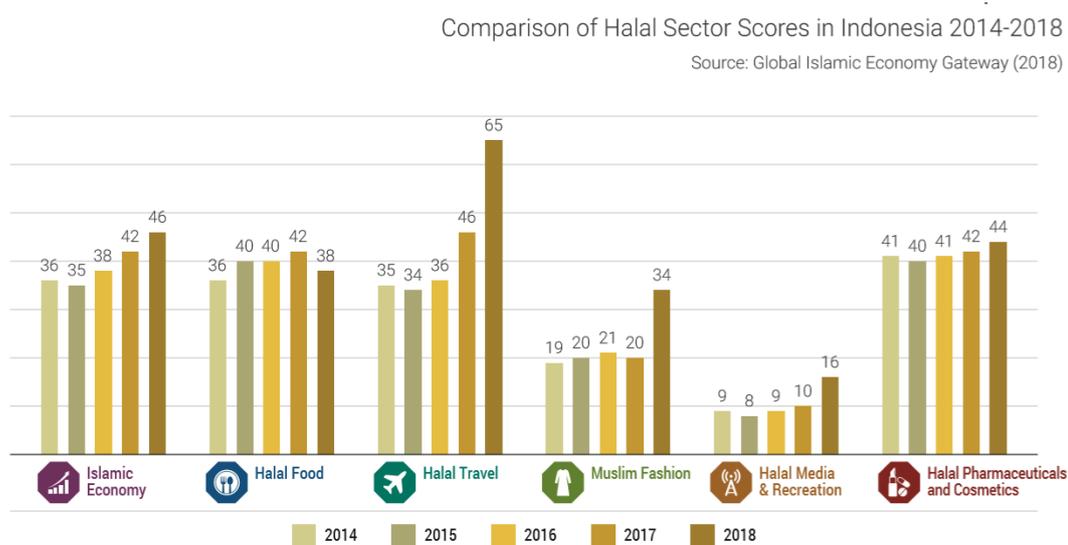
Another sharia industry that is currently a trend and high demand is halal food. In simple terms, halal food is food that can be consumed by humans which is justified by Islamic law, so that food that is prohibited by Islam cannot be consumed by humans. The Islamic industry in the food sector is in high demand not only because it offers hygienic food but also halal food has more companies than other sectors in the Islamic economy. Muslim spending on food and beverages is growing 6.1 per percent and is expected to reach US \$ 1.9 trillion by 2023; there are significant opportunities for investment and creation of global halal food brands (State of the Global Islamic Economy Report 2018/19).



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The Islamic financial sector is also fast becoming a force to be reckoned with, especially in OIC countries. Islamic finance has moved beyond the core countries of the UAE and Malaysia to include newcomers such as East Africa to Central Asia. Sharia-based investment platforms are also being developed by utilizing FinTech. One of these sectors in Islamic finance has grown with assets estimated at US \$ 2.4 trillion in 2017, and is expected to soar to US \$ 3.8 trillion in 2023 (State of the Global Islamic Economy Report 2018/19).

Meanwhile, products from other sharia industries that are also in demand are sharia tourism. Based on research conducted by MasterCard & CrescentRating on the 'Global Muslim Travel Index 2015', data presented that in 2014 there were 108 million Muslims who had traveled at a cost of U \$ 145 billion. This figure is quite large, almost 10% of the total global economy. Islamic tourism itself is defined as a tourism activity that uses various facilities and services in accordance with Sharia principles. The tourism industry itself has various aspects and actors involved, for example hotels and transportation, food and beverages, and worship facilities. These aspects and actors must comply with sharia principles. From this sharia product, it can contribute to the growth of the world economy, especially in Indonesia. The large number of Muslim population in Indonesia is a strong factor for market absorption to fulfill halal needs. By fulfilling the needs of the financial sector, food and beverage, and tourism based on Islamic sharia, there is great potential in the development side of the world economy, especially Indonesia. The huge potential in Indonesia is in line with increasing awareness of the importance of production and consumption in the halal sector.



Source: MASTERPLAN EKONOMI SYARIAH INDONESIA 2019-2024

Based on the data above, overall consumption of the Islamic industry in Indonesia in 2017 reached more than USD 200 billion or more than 36% of total household consumption and non-institutional profits. More than USD 200 billion was contributed by the consumption of the halal industry in Indonesia, as much as USD 169.7 billion or 84.85% contributed by the consumption of halal food. However, Indonesia has not been in the top 10 position in the GIE (Global Islamic Economy) ranking since 2014 for halal food production.



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## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Economic Growth

One of the main indicators in measuring the success of a country's economic development is the rate of economic growth. The success of current economic growth can be seen from the ability of a country to provide various types of goods and services economically in accordance with the needs and developments in information technology advances which are constantly developing (Marlinah Lili, 2019). One way to calculate economic growth is by calculating the value of money where the value of money will be reflected in the gross domestic product (GDP).

### Sharia Industry Classification

#### 1. Halal Food

Islam justifies something that is good and provides benefits to mankind. Halal food, which is food that is allowed for a Muslim to eat it. Meanwhile, food that is haram is forbidden by a Muslim to eat it. Basically all food and drink derived from plants, vegetables, fruits and animals are lawful except those that are poisonous and endanger human life. Because Allah SWT will not prohibit something unless there is wisdom in it. Whatever is lawful for consumption is considered to have a good impact on the human body and life.

#### 2. Sharia Finance

According to Decree of the Minister of Finance RI No.792 of 1990: That financial institutions are all business entities engaged in finance where what is done is to collect funds and distribute them to the public or customers, especially for development investment costs. Financial institutions have provided credit or financing to customers and invested their funds in securities (Susanto, 2015).

Sharia Bank is part of Islamic finance in Indonesia. Sharia banks themselves consist of Islamic Commercial Banks and Sharia Rural Banks (BPRS). In the Indonesian banking Act (Act Number 10 of 1998), there are two differentiating banks based on their business activities, namely banks that carry out conventional business activities and banks that carry out business activities based on sharia principles. Sharia principles are principles of Islamic Law in banking activities based on fatwas issued by institutions that have the authority to determine fatwas in the field of Islamic banking (Article 1 Number 12 of Law Number 21 of 2008 concerning Islamic Banking).

#### 3. Halal Tourism

The word tourist (tourist) refers to people, in general tourists become a subset or part of the traveler or visitor. To be called a tourist, one must visit as a visitor to a place that has interesting natural or cultural beauty. Meanwhile, tourism itself is a very multidimensional concept like the understanding of tourists. It is inevitable that several definitions of tourism are used by practitioners with different goals and perspectives, something that they want to achieve (Andi, 2009).

In the view of Islam, travel is considered as worship, because traveling is one of the pillars of Islam, namely Hajj in certain months and Umrah which is carried out throughout the year to the Baitullah. In addition, by traveling or traveling, it can be connected with the concept of knowledge and learning. This became the biggest journey undertaken in early Islam with the aim of seeking and spreading knowledge (Surah al-Taubah: 112). Another tourist destination according to Islam is as a means of learning science and thinking. The command to travel on earth appears in several places in the Qur'an: Q.S. al-An'am: 11-12 and al-Naml: 69-70

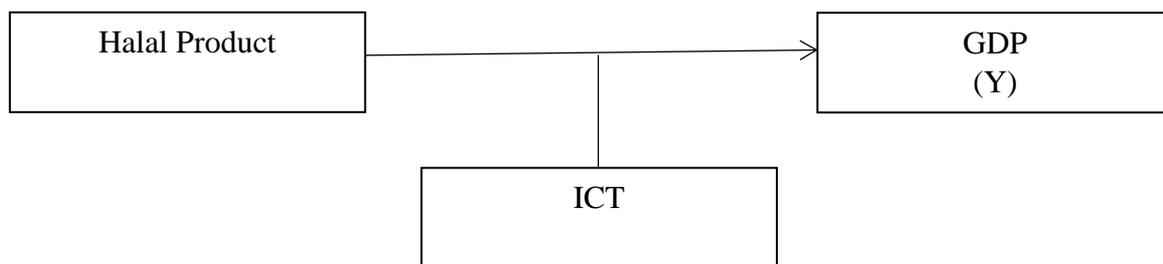
## Information Communication and Technology (ICT)

The progress of ICT is marked by the development of various sectors such as the use of correspondence which is now more efficient using email. Not only that, in the fields of education, health, banking, business, and communication within the company have also taken advantage of the use of ICT to be more efficient, save time and lower costs.

In Indonesia, many people use ICT in their daily lives, which can be seen from the number of internet users that have increased every year. The Indonesian Internet Service Providers Association released a national result of research related to the number of Internet users in Indonesia in 2014 in collaboration with the Communications Research Center (Puskakom) University of Indonesia said that internet users in Indonesia had reached 88.1 million people, while the growth of internet users had increased 23,74% compared to 2013.

### Theoretical Framework

The independent variable in this study is the sharia industry, namely halal products registered in MUI, while the moderating variable is ICT using the use of the Internet as a measurement parameter of ICT. The dependent variable is economic growth indicated by GDP growth.



**Figure 2.1 Theoretical Framework**

Source: Self-processed data

### Hypothesis

Economic behavior, both consumption and production of halal food, in addition to meeting the demands of religious law, has also become a culture for Muslim communities in various parts of the world (Nasrulloh Aan, 2016). One of the reasons for consuming halal products, apart from hygiene aspects is the fulfillment of Islamic law (Idris Nor Aini Haji and Modh Ali Mohd Noor, 2013). With the growing public demand and preference for halal food that is not consumed by Muslims but also non-Muslims, it has caused halal food to contribute to the growth of the Indonesian economy. This is in line with research (Nurrachmi Rininta, 2017) which states that the halal food industry can be a catalyst for developing other potential sectors that are negatively impacted by the economic crisis in countries with smaller Muslim populations. Based on this discussion, the hypothesis in this study is as follows.

Economic behavior, both consumption and production of halal food, in addition to meeting the demands of religious law, has also become a culture for Muslim communities in various parts of the world (Nasrulloh Aan, 2016). One of the reasons for consuming halal products, apart from hygiene aspects is the fulfillment of Islamic law (Idris Nor Aini Haji and Modh Ali Mohd Noor, 2013). With the growing public demand and preference for halal food that is not consumed by Muslims but also non-Muslims, it has caused halal food to contribute to the growth of the Indonesian economy. This is in line with research (Nurrachmi Rininta, 2017) which states that the halal food industry can be a catalyst for developing other potential sectors that are negatively impacted by the economic crisis in a



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country with a smaller Muslim population. Based on this discussion, the hypothesis in this study is as follows.

H1: Halal products have an effect on GDP

The halal product sector plays an important role in encouraging a country's economic growth, especially Indonesia as a country with the largest Muslim population in the world. This great potential is the basis for increasing economic growth in Indonesia, especially if it is strengthened by ICT as a medium to expand the existing potential. So based on this discussion, the hypothesis in this study is as follows.

H2: ICT strengthens the influence of halal products on GDP

### 3. RESEARCH METHODOLOGY

This research using quantitative methods, namely data that is expressed in numbers. This study uses secondary data obtained from historical data on GDP in Indonesia, the number of hala businesses registered in Indonesia, and data on the use of ICT in the 2011-2018 periods. The data used in this study were processed using the SPSS program. The data used in this study is secondary data, namely data obtained based on existing sources before the research was carried out and then used as material for analysis in this study. Secondary data in this study is historical data from economic growth using indicators of GDP growth, IPR growth, and population welfare growth. Meanwhile, halal products are obtained from the number of halal food, Islamic finance and halal tourism registered in Indonesia. ICT uses indicators of internet user growth, fixed broadband growth, and smartphone user growth.

### 4. RESULTS AND DISCUSSIONS

#### Descriptive statistics

Descriptive statistical analysis is a qualitative analysis that will discuss the distribution of data including the maximum value, minimum value, data range, mean, and std. deviation of each research variable. The data description obtained from the measurement results of the independent variables (and the number of halal products, and ICT as the moderating variable) to the dependent variable (GDP growth) in the 2000-2018 periods are as follows.

**Descriptive Statistics**

	Mean	Std. Deviation	N
GDP	48764.0000	51026.27122	19
Produk Halal	.2103	.19007	19

The statistical description of variable data in the table above shows that Halal in the 2000-2018 period, which was the sample in this study, had a mean of 0.2103 with a standard deviation value of 0.19007 while the mean for GDP was 48,764 and the standard deviation was 51,026,27122.

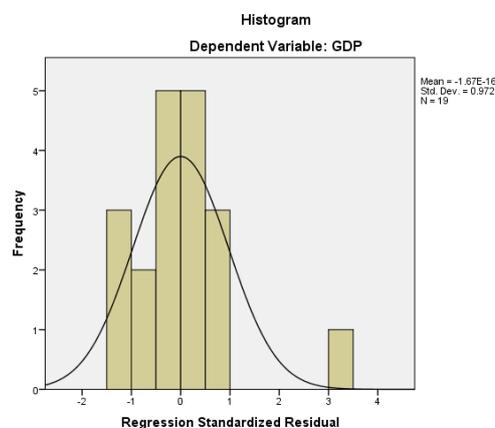
	Mean	Std. Deviation	N
GDP	48764.0000	51026.27122	19
Produk Halal	.2103	.19007	19
ICT	.0525	.00681	19
Produk Halal x ICT	.0111	.00972	19

The statistical description of variable data in the table above shows that Halal Products, ICT and GDP in the 2000-2018 period, which were the samples in this study, had a mean of 0.2103 with a standard deviation or standard deviation of 0.19007, while the mean for ICT is 0.525 with a standard deviation of 0.00681. GDP has a mean of 48,764 and the standard deviation is 51,026.27122.

## Classic Assumption Test

### 1. Normality Test

The normality test is used to test whether the research data in a regression model is normally distributed or not. Normally distributed data is seen through a normal probability plot by looking at the distribution of points on the diagonal axis of the graph. If the normal probability plot graph shows that the points spread coincide around the diagonal line and in the direction of the diagonal line, it can be concluded that the residual data has normal residuals.



Based on the normality test output in the doatas image, it is normally distributed following a bell shape. From the graph, it can be seen that the data distribution has a curve that can be considered as a bell and provides a distribution pattern that does not deviate from left or right. It can be concluded that the data are normally distributed.

## Partial Testing

The partial hypothesis draft prepared by the author in the previous chapter is as follows:

H1: Halal products have an effect on GDP

H2: ICT strengthens the influence of halal products on GDP

This test was carried out with a degree of freedom of 0.05 (Ghozali, 2013) which became the basis for making decisions, namely:

- a. If the probability value (sig) > 0.05 then H0 is accepted, which indicates that the independent variable has no partial effect on the dependent variable
- b. If the probability value (sig) < 0.05 then H0 is rejected, which indicates that the independent variable has a partial effect on the dependent variable

The results of hypothesis testing can be seen in the following table:



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**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3272.769	7065.518		-.463	.649
	Produk Halal	2784.009	25228.008	.922	.001	.000

a. Dependent Variable: GDP

From the results of the SPSS output which can be seen from the table above, the regression equation is obtained as follows:

Equation 1: Without Moderating variables

$$\text{GDP} = 3.272,769 + 2.784,009 (\text{Halal Product}) + \epsilon$$

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3272.769	60091.388		.692	.002
	Produk Halal	2784.009	447541.376	.762	.457	.000
	ICT	8702.355	1203502.841	-.116	-.724	.001
	Produk Halal x ICT	8909.769	8828173.887	.170	.101	.003

a. Dependent Variable: GDP

From the results of the SPSS output which can be seen from the table above, the regression equation is obtained as follows:

Equation 2: With Moderating variables

$$\text{Company Value} = 3,271,769 + 2,784,009 (\text{Halal products}) + 8,702,355 (\text{ICT}) + 8,809,769 (\text{Halal products x ICT}) + \epsilon$$

Each negative or positive coefficient on the independent variables from the 2000 to 2018 observation years has an influence on GDP. It is known that the constant coefficient of 3,271,769 means that by not calculating the value of the independent variables in this study, the GDP is 3,271,769. Meanwhile, every change of one unit of the Halal Product variable affects the increase in GDP.

### Hypothesis Discussion

Based on the results of testing with regression shown in the table above, the proposed hypothesis can be explained as follows:

#### 1. Hypothesis 1

Based on the output and regression model equation above, it can be seen that the halal product variable has a positive coefficient of 2,784.009 with a significance level of 0.00, which means that the



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value is  $0.00 < 0.05$ , then  $H_01$  is rejected and  $H_{a1}$  is accepted. So, the halal product variable partially has a significant effect on GDP

### 2. Hypothesis 2

Based on the output and the regression model equation above, it can be seen that the ICT variable moderates Halal Products to GDP having a positive coefficient of 8,909,769 with a significance level of 0.003 which means that the value is  $0.003 < 0.05$ , then  $H_02$  is rejected and  $H_{a2}$  is accepted. So, the ICT variable moderates halal products which partially have a significant effect on GDP.

### Interpretation of Research Results

#### Halal Products to GDP

The results of the analysis show that the halal product variable partially affects GDP. This shows that the halal product is one measure of GDP growth. Indonesia as a country with the largest Muslim majority in the world makes halal products greatly contribute to economic growth. The need for halal products in Indonesia, which is quite high compared to other products, contributes greatly to GDP growth each year. Therefore, optimizing halal products will provide a positive signal for Indonesia's future economic growth.

This research is supported by previous research conducted by Ahmad Samsul Badi '(2019) which states that halal products have a significant effect on economic growth. This research is entitled "Halal Industry Influence on State GDP - OIC Countries in the Asian Region in 2013-2016". The results of the study show that the halal industry can affect GDP in countries that are members of the OIC for the 2013-2016 periods.

#### ICT as a moderating variable on GDP

The results of data analysis can be seen from table 4.10, namely the results obtained from the ICT variable can moderate halal products against GDP. From these results it can be explained that ICT strengthens the influence of halal products on GDP, which means that the existence of ICT as a technology that can make it easier for consumers to make transactions for the needs of halal products can make a significant contribution to GDP growth in Indonesia.

This research is in line with research conducted by Ahrini Raef, Qaffas Alaa (2019) with the title "Impact of Information and Communication Technology on Economic Growth: Evidence from Developing Countries". In this study, it is explained that the role of ICT can have a significant effect on GDP growth in developed countries with the efficiency offered by ICT which can be utilized by users properly to contribute to GDP growth.

### 5. CONCLUSION

Based on the results of the research carried out, conclusions can be drawn as described as follows:

1. Halal products have an effect on GDP
2. ICT can moderate halal products against GDP

### LIMITATION AND STUDY FORWARD

This study only uses a few of the factors that affect GDP, and only uses ICT to moderate its influence, there are still a number of other variables that have not been used and have contributed to influencing GDP. In addition, this study only observes within a period of 18 years, namely from 2000-2018 and does not adequately capture the phenomenon of changes in GDP which are the research subjects.



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Further research, can choose the best model besides the model in this study, namely by including other variables that are closely related to GDP such as CPI, the amount of unemployment, and the amount of Import and Export. In addition, further research should be able to increase the time span of the study by taking a longer observation period in order to better capture the phenomenon of changes in GDP which is the subject of the study.

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## EFFECT OF ISLAMICITY PERFORMANCE INDEX ON SHARIA PROFITABILITY (PROFIT MARGIN) IN ISLAMIC BANKING

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### Abstract

**Purpose:** This study aims to determine how the influence of the Islamicity Performance Index variable on the Sharia profitability variable (Profit Margin) in banking in Indonesia in 2014-2018.

**Research Methodology:** The type of data used in this study is secondary data in the form of panel data obtained from Islamic Commercial Banks in Indonesia, the sampling method used is purposive sampling. The analysis of this research uses quantitative and comparative analysis techniques. In quantitative analysis, the tool used is panel data regression analysis with the Estimated General Least Square (EGLS) method.

**Results:** Simultaneously, the regression results show that the IPI variables have a significant effect on Profit Margin.

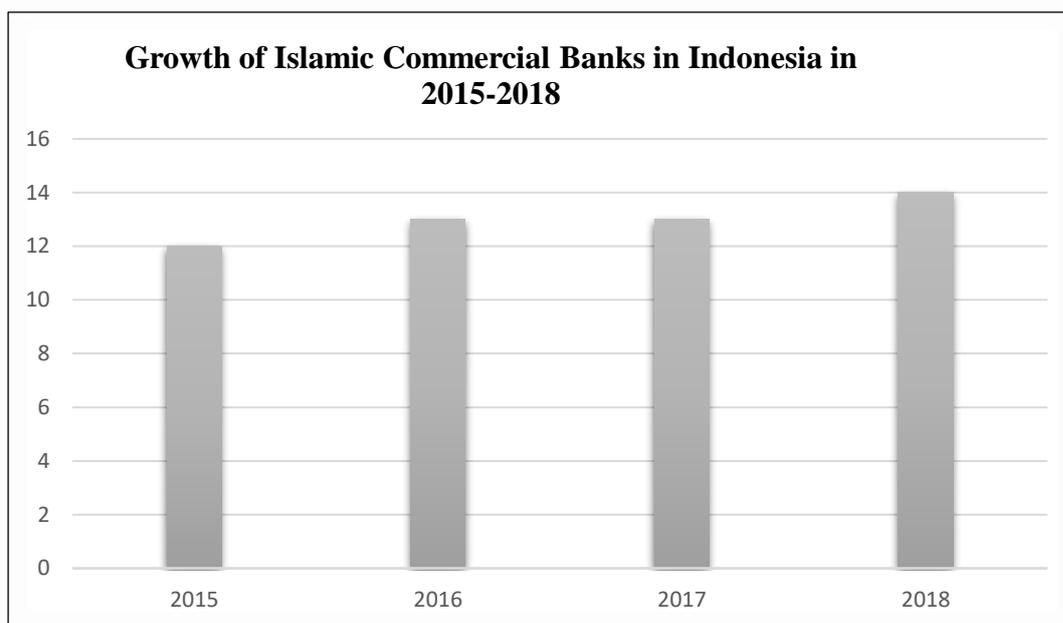
**Limitations:** The object of this research is Islamic banking in Indonesia with certain criteria, where the annual report will be analyzed in depth according to the research variables. There are some incomplete data in the annual Islamic banking report, for example zakat, which is the zakat fund report which is very crucial for measuring the Zakat Performance Index on the IPI variable.

**Contribution:** This research can be applied to the Islamic banking sector in Indonesia, as a study material for Islamic accounting.

**Keywords:** *Islamicity Performance Index and Profit Margin*

### 1. INTRODUCTION

Banking is one of the important financial instruments in a country. In general, banking has three main functions, namely collecting funds, distributing funds, and service or service functions (Ismail, 2010). At present, there are two banking systems in operation in Indonesia, namely the conventional banking system and the Sharia banking system. The Islamic banking system was first introduced in 1991 with the establishment of Bank Muamalat as the first bank to adopt an Islamic economic system. At the beginning of its establishment, Muamalat bank was less attractive because it was considered unable to provide maximum profit. When the monetary crisis peaked in 1998, Muamalat bank was able to withstand the crisis that occurred while several other banks were declared to have collapsed (Nofinawati, 2015). Since then, the Sharia Banking system The growth of Islamic banking in Indonesia is an interesting phenomenon to discuss. The Indonesian Information Portal notes that the total population of Muslims in Indonesia is 207 million or 87.2 percent of the total population in Indonesia. Indonesia's population, which is predominantly Muslim, provides a large market share opportunity for the development of Islamic banking. The sharia-compliant financial system adopted in Islamic banking is of particular interest in society so that Islamic banking has experienced rapid growth in Indonesia, marked by the increase in the number of Islamic commercial banks from year to year. The increase in Islamic commercial banks can be seen in graph 1.1.



**Graph 1.1. Growth of Islamic Commercial Banks in Indonesia in 2015-2018**

Source: OJK processed data, 2018

Graph 1.1. describes the growth of Islamic commercial banks in Indonesia. In 2015, there were 12 Islamic commercial banks in Indonesia. Then in 2016, BPD Aceh Syariah carried out a spin off or status change from a sharia business unit to a sharia commercial bank, so that the number of Islamic commercial banks became 13 banks. The number of Islamic commercial banks did not increase in 2017. In 2018, BPD Nusa Tenggara Barat Syariah also carried out a spin off which made the number of Islamic commercial banks in Indonesia increase to 14 banks.

The rapid development of Islamic banking in Indonesia is inseparable from various challenges and problems. One of the main challenges of Islamic banking is how to create and maintain the trust of stakeholders. Stakeholders in question are all stakeholders, both direct stakeholders who feel the impact directly (board of commissioners, board of directors, employees) and indirect stakeholders who feel the impact indirectly (investors, government, and society).

This trust will be useful for Islamic banks in their efforts to continue to grow. Banks will be able to mobilize savings, channel financing, invest, expand job opportunities, help the government, finance the budget deficit, and properly accelerate economic development (Duantika, 2015). This happens because all financial institutions must accept the fact that the providers of funds and other stakeholders have expectations, and they will not invest if the conditions of the institutions are less convincing and are deemed incapable of meeting these expectations.

One aspect that concerns stakeholders before investing in a bank is the financial performance of the bank. Bank financial performance can be assessed based on several ratios. According to (Weston, 1990) the ratios in measuring financial performance basically have four categories, namely the liquidity ratio which is used to measure a company's ability to meet its obligations in the short term while measuring the ability of a company. solvency ratio is used in fulfilling obligations in the long term. Then to measure the effectiveness of the use of assets used activity ratios and finally to see the company's ability to generate profits used profitability ratios.

In these four financial performance measurement ratios, the profitability ratio is an important consideration for stakeholders in investing in banks. High profitability indicates a good bank prospect



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and increases stakeholder confidence so that it will increase the value of the bank (Sujoko and Soebiantoro, 2007).

Kasmir (2008) explains that there are four ratios that can be used to measure the profitability of a bank, namely Net profit margin, Composition of operating expenses (BOPO), Return on assets (ROA), and Return on equity (ROE). The four ratios are used to measure the profitability ratios of conventional banks and Islamic commercial banks. Alternative calculation of special financial ratios for Islamic banks was put forward by (Muhamad, 2015). These financial ratios are not much different from the financial ratios that apply to conventional banks, but there are several ratios that have different calculation methods. The specific financial ratio for Islamic banks is Profit Margin. The existence of measuring the financial performance of Islamic banks using the two measurement techniques above, of course, will be a consideration for stakeholders to put their trust in Islamic banks to invest their capital so that these Islamic banks can grow and carry out their operational activities.

Based on all interests in terms of maintaining stakeholder trust in Islamic banks, it can be accommodated by a social performance and financial performance assessment system. Social performance is quite closely related to the concept of Corporate Social Responsibility (Azita, 2018). This concept was developed so that the company has a high concern for the environment and its surroundings. Meanwhile, the bank's financial performance is a description of the bank's financial condition in a certain period, covering both the aspects of raising funds and channeling funds. Financial performance for Islamic banks can be represented in several variables in measuring the financial health of Islamic banks.

Alternative performance measurement for Islamic banking, namely using the Islamicity Indices pioneered by (Hameed et. Al., 2004) Islamicity Indices consists of two components, namely the Islamicity Disclosure Index and the Islamicity Performance Index. The Islamicity Disclosure Index is intended to test how well Islamic banks disclose useful information for stakeholders. The Islamicity Discloser Index is divided into three main indicators, namely sharia compliance indicators, corporate governance indicators, and social or environmental indicators (Wiyadi, 2016).

Meanwhile the Islamicity Performance Index is a method that can evaluate the performance of Islamic banks not only from a financial perspective but also able to evaluate the principles of justice, halalness and purification (tazkiyah) practiced by Islamic commercial banks (Hameed, 2004). There are six financial ratios measured from the Islamicity Performance Index, namely profit sharing ratio, zakat performance ratio, equitable distribution ratio, directors-employee welfare ratio, Islamic investment vs non-Islamic investment ratio, Islamic income vs non-Islamic income. The variables of profit sharing ratio, zakat performing ratio, equitable distribution ratio, directors-employee welfare ratio and Islamic income vs non-Islamic income are taken as benchmarks for the influence on Islamic banking financial performance because the data required is quantitative and can be measured, while the Islamic investment vs. non-Islamic investment ratio is related to the performance of the Sharia Supervisory Board (DPS) (Khasanah, 2016).

Based on the explanation above, an assessment of the financial performance of a bank is an important matter to be traced and analyzed as a form of accountability to stakeholders. The dependent variable used in this study is the profitability of sharia, namely Profit Margin (PM), then tested to see how much the Islamicity Performance Index affects these variables, then as a reference for banks to take the next step and become a consideration for stakeholders. Therefore, the authors are interested in conducting research under the title "The Effect of the Islamicity Performance Index on Sharia Profitability (Profit Margin) in Islamic Banking".

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1. *Syariah Enterprise Theory (SET)*

A company operates to produce goods or services needed by the community, but of course there are externalities that are felt by the surrounding environment such as the presence of waste, be it water



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waste, air waste or sound waste. Enterprise theory is considered more relevant to solve the above problems because enterprise theory realizes that companies running and growing are caused by direct and indirect stakeholders in obtaining profits. However, this theory is still capitalist in nature, so (Triyuwono, 2009) adds the highest stakeholder so that this theory is in accordance with sharia. The highest stakeholder is God. This opinion is in line with what was said (Haniffa, 2002) in his research that a Sharia entity must have three relationships, namely the relationship between humans and God, humans and humans, and humans with nature. The development of enterprise theory in accordance with sharia is called the Sharia Enterprise Theory.

Sharia Enterprise Theory is a theory that places Allah SWT at the center of everything. Allah SWT is the center of the return of humans and the universe and humans here are only His representatives (Khalifatullah fil ardh) who have the consequences of obeying all the laws that Allah SWT has established. The function of determining Allah as the highest stakeholder is solely to use sunnatullah as the basis for the construction of Sharia accounting, which means that the accounting system is only built and implemented in accordance with Allah's rules or laws (Triwuyono, 2009).

Sharia Enterprise Theory places Allah as the main mandate. Resources that are owned by stakeholders are a mandate from Allah which is attached with a responsibility in it to be used in the manner and purpose set by the Supreme Giver of the Trust. According to (Mulawarman, 2011) Allah SWT is the highest stakeholder so that Islamic accounting still aims to raise awareness of the Godhead of its users. Human as if binding a contract with God. The contact revealed that God as The Ultimate Principal assigns humans to spread grace or prosperity in the form of economy, social, spiritual, political and other to other humans (stakeholders) and nature (Mulawarman, 2011).

The second stakeholder of SET is human. Humans are divided into two groups, namely Direct Stakeholders and Indirect Stakeholders. Direct Stakeholders are parties who contribute directly to the company, both in financial and non-financial contributions, namely shareholders, employees, creditors, government, suppliers, customers and others (Triyuwono, 2009). With this contribution, they are entitled to receive welfare from the company concerned. Meanwhile, Indirect Stakeholders are parties who do not contribute to the company, but according to Sharia, they are the parties who have the right to benefit from the company, namely the general public (especially mustahiq) and the natural environment (in the sense of protecting, improving and preserving nature), Triyuwono (2001). The last stakeholder group is Nature. Nature is the party that contributes to the survival of the company as well as the part of God and Man. Basically all production activities are carried out on earth and use natural energy contained in the earth. However, nature does not want the distribution of welfare from companies in the form of money or material but in the form of company concern for nature preservation, prevention of pollution, and others (Triyuwono, 2009).

### 2.2 Sharia Banking Financial Performance

Performance is a measuring tool for the company's operational success in achieving predetermined targets. This is because performance reflects the company's ability to manage and allocate its resources in an effort to achieve predetermined targets. Assessment of company performance is very important for management, government, shareholders, and all parties with an interest in the company because the distribution of welfare from these parties depends on the performance of the company (Haq, 2015).

Bank financial performance is a description of the bank's financial condition in a certain period, where information on financial position and financial performance in the past is often used as a basis for predicting the company's financial position, planning and performance in the future. Assessment of bank financial performance can be assessed using the financial ratio analysis approach of all reported financial statements in the future (Hameed et al., 2004).

Performance measurement is a method in measuring company achievement based on predetermined targets. This measurement is part of control measures that can assist the company in improving future



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performance as long as it identifies operating deficiencies for operating activities in one period. Having a good and precise performance measurement system is very important for a company, especially for companies in a world without borders like now (Hameed et al., 2004).

Based on the description above, it can be concluded that performance measurement is a measurement of company activities that have been carried out periodically based on the performance measurement standards used. The results of these measurements will be used as a tool, determining policies, considerations and strategies that will be carried out by the company in the future. The ratios used in analyzing financial performance include liquidity, solvency, activity and profitability. Alternative measurement of profitability ratios for Islamic banking was proposed (Muhamad, 2015). These financial ratios are not too different from the profitability ratios that apply to conventional banks, there are only differences in the calculation method in some ratios. The profitability ratio of the Islamic bank is the profit margin

### 2.2.1 Profit Margin

Profit Margin is the ratio used to measure how much sales can generate profits (Prastowo and Juliaty, 2008). Meanwhile, according to (Darsono and Ashari, 2014) Profit margin is a ratio that describes the amount of net profit a bank gets for every financing activity it does. If a company's sales increase, it tends to increase bank profitability. Conversely, if the sales of a company decrease, it tends to decrease the profitability of the bank (Harahap, 2011). The profit margin ratio can be calculated using the following formula:

Profit Margin = (Net profit before tax) / (Total income)

### 2.3. Islamicity Performance Index

Measuring the performance of an organization can be done through various indexes. There have been many types of indexes used to measure organizational performance, but not many have been compiled to measure the performance of Islamic financial institutions. Therefore, measuring the financial index for Islamic financial institutions is considered important. The existence of performance measurement of Islamic financial institutions can be a means to carry out activities based on the concept of sharia enterprise theory which upholds the values of justice, truth, honesty, trust and accountability both to stakeholders and to Allah SWT.

Two indexes developed by (Hameed, 2004) can be used in calculating or assessing the performance of Islamic financial institutions, namely the Islamicity Disclosure Index and the Islamicity Performance Index. The Islamicity Disclosure Index is an index used to see how well an organization discloses information that may be of use to stakeholders. Meanwhile the Islamicity Performance Index is a performance measurement tool that apart from being able to reveal the materialistic values of Islamic Financial Institutions, it is also able to reveal the Islamic values that exist in the Islamic Financial Institution. The Islamicity Performance Index is also one of the methods used to evaluate the performance of an Islamic financial institution in terms of both justice and halalness. Referring to the weighting model for calculating the financial health of Islamic banks, the weighting for performance is arranged as follows:

**Table 2.1. Islamicity Performance Index Assessment Standards**

<b>Aspek</b>	<b>Bobot</b>
<i>Profit Sharing Ratio</i>	30%
<i>Zakat Performance Ratio</i>	35%
<i>Equitable Distribution Ratio</i>	35%
<i>Directors-Employees Welfare Ratio</i>	30%
<i>Islamic Income vs Non Islamic Income</i>	30%

Source: Luhur Prasetyo, 2014



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Performance measurement using the Islamicity Performance Index is expected to be an analytical model that can measure the extent to which the level of achievement of sharia objectives has been achieved by Islamic Financial Institutions and the extent to which the quality of Sharia values is applied in the sustainability of the Sharia Financial Institution's activities. Until now, the Islamicity Performance Index is still used to help assess the performance of a Sharia Financial Institution. The Islamicity performance index consists of ratios which are a reflection of the performance of Islamic banks as follows:

### 2.3.1. Profit Sharing Ratio (PSR)

The profit sharing ratio is used to identify profit sharing as a measurement of how far an Islamic bank has succeeded in achieving its goals of existence (Marliana, 2018). Income from profit sharing can be obtained through two contracts, the first is *mudharabah*, namely investment from the owner of the capital (*Shohibul mal*) to the fund manager (*Mudharib*) to carry out certain business activities with the distribution based on profit and loss sharing. The second contract is *musyarakah*, which is an agreement between two or more capital owners who mix their capital in a certain business with profit sharing and according to the agreement and losses are borne by all owners of capital based on the share of capital of each owner of capital (Karim, 2006).

Profit sharing is calculated in the Islamicity Performance Index to see how much financing through *mudharabah* and *musyarakah* contracts Islamic banks have in an effort to implement the profit sharing principle which is the main principle of Islamic banks. The following is the profit sharing ratio (PSR) formula:

$$PSR = \frac{Mudharabah + Musyarakah}{Total Financing}$$

### 2.3.2. Zakat Performance Ratio (ZPR)

Zakat is a commandment in Islam. Therefore, the performance of an Islamic bank must be based on the amount of zakat paid by Islamic banks to replace conventional performance indicators, namely the ratio of earnings per share (earnings per share). Bank wealth should be based on net assets (net assets) rather than net profit (net profit). Therefore, if the net assets of Islamic banks are higher, of course, the payment of zakat will also be high (Marliana, 2018).

According to PSAK 101, zakat management activities are presented in the zakat funds report in Islamic financial reports. Presentation of information on zakat fund management is a form of concern for Islamic banks in fulfilling social obligations to society. This shows that Islamic banks also carry out their sharia activities in the form of distributing zakat to their recipients, not just running their business activities. Zakat distribution is also calculated in the Islamicity Performance Index to see how much effort Islamic banks have in improving people's welfare. The formula for Zakat Performance Ratio (ZPR) is as follows:

$$ZPR = \frac{Zakat}{Net Asset}$$

### 2.3.3. Equitable Distribution Ratio (EDR)

Apart from activities that focus on profit sharing, Islamic accounting also seeks to ensure equal distribution among all parties. Therefore, this Equitable Distribution ratio basically tries to explain how the income earned by Islamic banks is distributed among various interested parties. These parties include shareholders, the community, employees, and the company itself (Marliana, 2018). This ratio is represented by the amount of funds spent on *qardh* and benevolence, employee wages and others. Each item will be calculated the amount distributed from the total income after deducting zakat and taxes. The Equitable Distribution Ratio (EDR) formula is:

$$EDR = \frac{Average\ distribution\ for\ each\ stakeholders}{Total\ Revenue}$$



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### 2.3.4. Directors-employees welfare ratio

This ratio aims to measure whether the salary received by the director is greater than the employee. Islam has taught that to always be fair in everything, especially in terms of wages. The wages received by workers must be in accordance with the contribution they make to production, while the employer will get a profit that matches his contribution and proportion of his capital. So the high and low wages of a person in doing a job return to their respective contributions (Marliana, 2018).

This indicator explains the comparison between the welfare obtained by the director and the welfare of his employees. The DEWR formula is as follows:

$$DEWR = \frac{\text{Average director salary}}{\text{Average welfare of permanent employees}}$$

### 2.3.5. Islamic income vs non-Islamic income ratio

This ratio measures the income that comes from halal income sources. If an Islamic bank earns income from transactions that are not halal, then information such as the amount, source, how to determine and what procedures are available to prevent the entry of transactions that are prohibited by the Islamic bank must be disclosed (Marliana, 2018). This ratio aims to measure how much income comes from halal sources. The resulting value is a measure of the halalness and success of implementing the basic principles of Islamic banking. The formula for Islamic income vs non-Islamic income ratio is:

$$IIR = \text{income} / (\text{halal income} + \text{non-halal income})$$

$$IIR = \frac{\text{Income}}{\text{non} - \text{halal income}}$$

## HYPOTHESIS DEVELOPMENT

According to Maisaroh (2015), Dewanta et.al (2016), Khasanah (2016), Bustamam et.al (2016) and Rahma (2018) examined the effect of the Islamicity Performance Index on the Profitability of Islamic Banking in Indonesia using the Return on Assets (ROA) proxy. ). Based on research by Maisaroh (2015) & Rahma (2018), it is revealed that the variables that affect profitability are the Zakat Performance Ratio (ZPR) and Directors-Employees Welfare Ratio (DEWR). Meanwhile, Profit Sharing Ratio (PSR), Equitable Distribution Ratio (EDR) and Islamic Income Vc Non-Islamic Income (IIR) had a positive and insignificant effect on profitability. In this research, the ROA variable is changed with the Profit Margin (PM) variable to find out whether IPI can be identified through sharia profitability, namely PM, then the provisional hypothesis is:

H1: There is a significant positive effect of the Islamicity Performance Index on Profit Margin

## 3. RESEARCH METHODOLOGY

**Table 3.1. Research Population**

No.	Bank Umum Syariah	Website
1.	PT. Bank Muamalat Indonesia	<a href="http://www.bankmuamalat.co.id">www.bankmuamalat.co.id</a>
2.	PT. Bank Syariah Mandiri	<a href="http://www.syariahandiri.co.id">www.syariahandiri.co.id</a>
3.	PT. Bank BRI Syariah	<a href="http://www.brisyariah.co.id">www.brisyariah.co.id</a>
4.	PT. Bank BNI Syariah	<a href="http://www.bnisyariah.co.id">www.bnisyariah.co.id</a>
5.	PT. Bank Mega Syariah	<a href="http://www.megasyariah.co.id">www.megasyariah.co.id</a>
6.	PT. Bank BCA Syariah	<a href="http://www.bcasyariah.co.id">www.bcasyariah.co.id</a>
7.	PT. Bank Bukopin Syariah	<a href="http://www.syariahbukopin.co.id">www.syariahbukopin.co.id</a>
8.	PT. Bank Panin Syariah	<a href="http://www.paninbanksyariah.co.id">www.paninbanksyariah.co.id</a>
9.	PT. Maybank Syariah Indonesia	<a href="http://www.maybanksyariah.co.id">www.maybanksyariah.co.id</a>
10.	Pt. Bank Victoria Syariah	<a href="http://www.bankvictoriasyariah.co.id">www.bankvictoriasyariah.co.id</a>
11.	PT. Bank Jabar Banten Syariah	<a href="http://www.bjbsyariah.co.id">www.bjbsyariah.co.id</a>
12.	PT. BTPN Syariah	<a href="http://www.btpnsyariah.co.id">www.btpnsyariah.co.id</a>
13.	PT. Bank Aceh Syariah	<a href="http://www.bankaceh.co.id">www.bankaceh.co.id</a>
14.	PT. NTB Syariah	<a href="http://www.bankntbsyariah.co.id">www.bankntbsyariah.co.id</a>

Source: OJK, data processed in 2018



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To test the hypothesis in this study, using a quantitative approach. The data collection method used in this research is the documentation method. The data used in this study are secondary data obtained through publications conducted by Islamic banks. The data is in the form of panel data from the annual report (annual report) on Islamic Commercial Banks in Indonesia in 2014-2018. The data analysis technique used panel data regression analysis. The techniques used to collect data were documentation and literature study.

The data used in this study is a combination of time series and cross section data. Estimates made by combining the two types of data are called pooling data or panel data. In this study, to test the comparison used the Independent Sample T-Test.

Panel data is a combination of two different types of data, namely cross section and time series data and the model used to analyze this type of data is called a panel data model (Rosadi, 2012). The panel data regression model used in this study is as follows:

$$PM_{it} = \alpha + \beta_1 PSR_{it} + \beta_2 ZPR_{it} + \beta_3 EDR_{it} + \beta_4 DEWR_{it} + \beta_5 IIR_{it} + \varepsilon_{it}$$

Panel data regression models were estimated with several approaches, namely the Common Effect (Ordinary Least Squares), Fixed Effect Model (Fixed Effect, Random Effect Model). The data panel was analysis can be done using three tests, namely the F statistical test (chow test) the Hausman Test, and The Lagrange multiplier tests. The data to be examined, before being processed with linear regression, was first tested with the classical assumption test. The classical assumption test consisted of normality test, heteroscedasticity test, autocorrelation test, and multicollinearity test. Hypothesis testing was done using the partial t test and f test, simultaneously.

### 3.1. Population and Sample

The population in this study are all Islamic commercial banks (BUS) in Indonesia that operate nationally and are registered with the Financial Services Authority (OJK). Table 3.1 presents the study population.

Based on the pre-determined sampling criteria, of the total population of Islamic Commercial Banks, there are 9 Islamic Commercial Banks that meet the predetermined criteria. Table 3.2 presents the sample selection process based on the criteria set in this study.

**Table 3.2. Sample Selection Process**

No.	Sampling Criteria	Number
1.	Sharia Commercial Bank that has been registered with the Financial Services Authority (OJK) and is in accordance with banking laws and regulations.	14
2.	Sharia Commercial Banks that have not published complete financial reports in accordance with applicable standards, namely Islamic PSAK No. 101.	(3)
3.1.	Bank Umum Syariah yang belum beroperasi dan menerbitkan Sharia Commercial Banks that are not yet operational and publish annual financial reports in a row and published on the websites of each of these Islamic banks in the period 2014 to 2018.	(2)
The total sample used		9

Source: Processed data, 2019

Sharia Commercial Banks (BUS) which were not sampled in this study were 5 banks, namely Maybank Syariah, BTPN Syariah, Bank NTB Syariah, Bukopin Syariah and Bank Aceh Syariah. Bank Aceh Syariah and Bank NTB Syariah were not sampled because these banks only operated nationally in Indonesia in 2016, while the other three banks were not sampled because they did not



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have investment management related to zakat funds and had not started zakat fund management activities until the end of 2018. .

### 3.2. Variable Operational Definition

#### 3.2.1. Profit Margin (PM)

The profit margin ratio is a comparison between the net profit before tax and the total revenue of Islamic commercial banks in Indonesia for 2014-2018, which results in a ratio.

#### 3.2.2. Profit Sharing Ratio (PSR)

The profit sharing ratio is a comparison between mudharabah financing plus musyarakah financing and divided by the total financing of Islamic commercial banks in Indonesia for 2014-2018, which results in a ratio.

#### 3.2.3. Zakat Performance Ratio (ZPR)

Zakat performance ratio is a comparison between zakat and the net assets of Islamic commercial banks in Indonesia for 2014-2018, which results in a ratio.

#### 3.2.4. Equitable Distribution Ratio (EDR)

Equitable distribution ratio is a comparison between the average income distribution to each stakeholder with the total income of Islamic commercial banks in Indonesia for 2014-2018, which results in a ratio.

#### 3.2.5. Islamic income VS non-Islamic income (IIR)

Islamic income VS non-Islamic income is a comparison between income and halal income plus non-halal income at Islamic commercial banks in Indonesia in 2014-2018, which results in a ratio.

#### 3.2.6. Directors employee welfare ratio (DEWR)

Directors employee welfare ratio is a comparison between the average salary of directors and the average welfare of permanent employees at Islamic commercial banks in Indonesia for 2014-2018, which results are in the form of ratios.

## 4. RESULTS AND DISCUSSIONS

### 4.1 PROFIT MARGIN STATISTICS (PM)

Table 4.1 presents the PM calculation results for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.1. PM Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	0.08	0.09	0.03	0.13	0.14
BJB SYARIAH	0.03	0.01	-0.57	0.53	0.03
BNI SYARIAH	0.11	0.13	0.13	0.13	0.15
BRI SYARIAH	0.01	0.07	0.09	0.05	0.05
BANK MEGA SYARIAH	0.02	0.02	0.22	0.15	0.10
BANK MUAMALAT	0.02	0.02	0.02	0.02	0.01
PANIN DUBAI SYARIAH	0.18	0.11	0.04	-1.24	0.04
SYARIAH MANDIRI	-0.47	6.28	6.72	6.68	10.61
VICTORIA SYARIAH	-0.17	-0.22	-0.23	0.04	0.04

Source: Data processed, 2020

Profit Margin (PM) is a ratio used to measure how much sales can generate profits (Prastowo and Juliaty, 2010). The results of the formula indicate the profit margin assessment as can be seen in table 4.1. Based on the results of the calculation of profit margin, it can be seen that of the nine banks sampled, only Bank BNI Syariah has increased every year. Bank BJB Syariah, BRI Syariah, BCA Syariah, Bank Mega Syariah, Bank Muamalat, Panin Dubai Syariah, Syariah Mandiri and Victoria Syariah have fluctuated during the period 2014-2018.



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Based on table 4.4, it can be seen that the bank with the highest profit margin value is Islamic Mandiri bank with a value of 10.61 percent in 2018. The lowest profit margin value is Panin Dubai Syariah bank with a value of -1.24 percent in 2017.

### 4.2 INDEPENDENT VARIABLE CALCULATION RESULTS

After calculating each dependent variable, namely Profit Sharing Ratio (PSR), Zakat Performing Ratio (ZPR), Equitable Distribution Ratio (EDR), Directors Welfare Employee Ratio (DEWR), and Islamic Income vs Non Islamic Income (IIR), the results obtained are as follows:

#### 4.2.1. Profit Sharing Ratio (PSR) Statistics

Table 4.6 presents the PSR calculation results for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.2. PSR Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	0.32	0.35	0.48	0.49	0.55
BJB SYARIAH	0.29	0.22	0.19	0.18	0.27
BNI SYARIAH	0.16	0.19	0.20	0.23	0.28
BRI SYARIAH	0.37	0.37	0.36	0.34	0.38
BANK MEGA SYARIAH	0.83	12.00	0.64	0.74	0.84
BANK MUAMALAT	0.51	0.54	0.54	0.50	0.51
PANIN DUBAI SYARIAH	0.87	0.90	0.84	0.85	0.93
SYARIAH MANDIRI	0.22	0.26	0.29	0.34	0.36
VICTORIA SYARIAH	0.49	0.84	0.68	0.52	0.41

Source: Data processed, 2020

Profit Sharing Ratio is a ratio that compares financing with a profit sharing contract with the total financing provided by Islamic banks as a whole. Based on the results of calculations for the profit sharing ratio for Islamic Commercial Banks (BUS) in Indonesia in table 4.2, it can be seen that Bank BCA Syariah, BNI Syariah, and Bank Syariah Mandiri have increased from year to year. Meanwhile, Bank BJB Syariah, BRI Syariah, Bank Mega Syariah, Bank Muamalat, Panin Dubai Syariah, and Victoria Syariah continued to fluctuate in the period 2014-2018.

Through the calculation of the Profit Sharing Ratio in table 4.2, it can be seen that the bank with the lowest financing ratio is the BNI Syariah bank with a ratio value of 0.16 percent in 2014. The highest value is owned by Bank Mega Syariah with a ratio value of 12 percent in 2015.

#### 4.2.2. Zakat Performing Ratio (ZPR) Statistics

Table 4.3 shows the results of the ZPR calculation for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.3. ZPR Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	0.00083	0.00087	0.0011	0.00083	0.00079
BJB SYARIAH	0.02116	0.0028	0.0066	0.0019	0.00023
BNI SYARIAH	0.055	0.055	0.055	0.527	0.049
BRI SYARIAH	0.034	0.017	0.025	0.028	0.018
BANK MEGA SYARIAH	0.060	0.018	0.034	0.049	0.037
BANK MUAMALAT	0.036	0.021	0.023	0.024	0.018
PANIN DUBAI SYARIAH	0.013	0.053	0.026	0.008	1.00
SYARIAH MANDIRI	0.075	0.044	0.028	0.028	0.028
VICTORIA SYARIAH	0.0053	0.0069	0.0020	0.0027	0.00077

Source: Data processed, 2020



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Zakat Performance Ratio is a ratio used to measure the amount of zakat issued by a bank which must be based on net assets. The results of this formula indicate the zakat performance ratio assessment as can be seen in table 4.3. Based on the calculation of zakat performance ratio, it can be seen that none of the nine banks sampled has increased every year. So in other words, the zakat value of the performance ratio of all banks has fluctuated during the 2014-2018 period.

Based on the table above, it can be seen that the bank with the highest zakat performance ratio is Panin Dubai Syariah with a value of 1 percent in 2018. Meanwhile, for the zakat value the lowest performance ratio is Bank BJB Syariah with a value of 0.00023 percent in 2018.

### 4.2.3. Equitable Distribution Ratio (EDR) Statistics

Table 4.4 presents the EDR calculation results for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.4. EDR Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	9.26	7.58	10.00	8.74	8.56
BJB SYARIAH	20.9	6.47	-11.58	-8.83	9.36
BNI SYARIAH	13.62	12.33	12.07	10.61	12.55
BRI SYARIAH	7.38	8.68	8.97	7.38	5.59
BANK MEGA SYARIAH	7.85	14.66	14.73	11.36	10.56
BANK MUAMALAT	5.97	6.39	6.85	7.97	8.60
PANIN DUBAI SYARIAH	82.90	54.34	22.60	-20.93	1.00
SYARIAH MANDIRI	0.22	2.37	2.61	2.61	2.65
VICTORIA SYARIAH	1.39	-0.86	0.61	5.86	5.63

Source: Data processed, 2020

Equitable Distribution Ratio (EDR) is a ratio used to measure the percentage of bank income distributed to stakeholders. Based on table 4.4, the results of the calculation of the Equitable Distribution Ratio show that Panin Dubai Syariah Bank is the bank with the largest percentage of revenue allocation value, namely 82.90 percent in 2014. Panin Dubai Syariah Bank is also the bank with the lowest income allocation percentage value of -20.93 percent at in 2017.

The calculation of the Equitable Distribution Ratio in table 4.4 also explains that there are two banks that have a percentage value of the Equitable Distribution Ratio which continues to increase every year, namely Bank Muamalat and Bank Syariah Mandiri. The Equitable Distribution Ratio value of the seven other banks fluctuated during the 2014-2018 period.

### 4.2.4. Statistics for Directors Employee Welfare Ratio (DEWR)

Table 4.5 shows the results of the DEWR calculation for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.5. DEWR Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	15.0	12.8	13.6	14.1	15.6
BJB SYARIAH	3.80	2.86	4.70	5.06	6.37
BNI SYARIAH	1.70	1.60	0.94	1.25	1.68
BRI SYARIAH	1.86	2.53	3.22	4.17	4.48
BANK MEGA SYARIAH	1.88	0.88	2.42	2.92	3.49
BANK MUAMALAT	4.60	2.68	2.37	2.41	2.45
PANIN DUBAI SYARIAH	30.29	31.46	27.21	24.54	25.76
SYARIAH MANDIRI	38.40	32.74	32.39	38.05	41.69
VICTORIA SYARIAH	33.17	52.15	37.69	28.52	31.01

Source: Data processed, 2020



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Directors Employee Welfare Ratio is the ratio between the director's salary and the employee's welfare money in a company where the purpose of the measurement is to measure the salary received by the director, which is greater than the employee.

The results of the calculations in table 4.5 show the magnitude of the gap between the director's salary and the employee's welfare. The biggest gap occurred in Bank Victoria Syariah in 2015. Meanwhile, the smallest gap was shown in Bank Mega Syariah in the same year.

### 4.2.5. Islamic Income vs Non Islamic Income (IIR) Statistics

Table 4.6 presents the results of IIR calculations for 9 Islamic Commercial Banks in Indonesia from 2014-2018.

**Table 4.6. IIR Calculation Results**

NAMA BANK	2014	2015	2016	2017	2018
BCA SYARIAH	1.00094	1.00087	1.00094	1.00101	1.00111
BJB SYARIAH	72.90	80.62	91.86	100.15	94.30
BNI SYARIAH	1.80	1.16	1.31	1.01	1.11
BRI SYARIAH	1.0012	1.0005	1.0002	1.0006	1.0013
BANK MEGA SYARIAH	1.13	1.95	630.63	-30.84	1.62
BANK MUAMALAT	1.048	1.047	1	1	1.078
PANIN DUBAI SYARIAH	0.999	1	1.001	1.001	1.001
SYARIAH MANDIRI	0.999	0.999	0.999	1	0.999
VICTORIA SYARIAH	0.06	0.10	0.13	0.0004	0.12

Source: Data processed, 2020

Islamic Income vs Non-Islamic Income (IIR) is a ratio that compares halal income to the total income obtained by Islamic banks which consists of halal and non-halal income. This ratio can be used to see the successful implementation of the basic principles of Islamic banks that are free from ribawi elements.

The calculation results in table 4.6 show how much Islamic banks allocate their halal income. The highest value of the ratio of Islamic Income vs Non-Islamic Income was in Bank Mega Syariah in 2016, amounting to 630.63. This value has decreased significantly in the following year to -30.84 which is the smallest value of the ratio of Islamic Income vs Non-Islamic Income.

Table 4.6 also shows the development of the value of Islamic Income vs Non-Islamic Income at each bank that was the research sample. The calculation result of 4.6 shows that the bank that has an increasing value of the Islamic Income vs Non-Islamic Income ratio is Bank Panin Dubai Syariah. Meanwhile, the ratio of Islamic Income vs Non-Islamic Income in other Islamic banks fluctuated in the 2014-2018 period.

### 4.3 REGRESSION MODEL DETERMINATION

This study uses panel data regression analysis techniques. There are three models used in panel data regression, namely the Common Effect Model, Fixed Effect Model, and the Random Effect Model. It is necessary to determine the best model to be brought into the research being carried out. Determination of the best model is done by using several tests, including the Chow test, Hausman test and LM test.

#### Model Fit Test: Chow Test

The model suitability test in the regression model using the Chow test can be seen in Table 4.7

**Table 4.7. Results of Model Selection Using the Chow Test**

Variabel	Cross-Section Chi Square
Dependen	Prob.
ROA	0,0000
PM	0,0000



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AT	0,0015
BOPO	0,0000

Source: processed data, 2020

Table 4.7 shows the probability value of the Chi Square Cross-section obtained from the Chow test results. Looking at the results in the table, it can be seen that in the Regression model with ROA as the dependent variable, the Chi Square Cross-section probability value is 0.0000. This value is less than the probability of 0.05, which means that for the regression model with the ROA variable as the dependent variable, the Fixed Effect Model is used. This also applies to the other three regression models where the Chi Square Cross-section probability value shows a value less than 0.05, which means that the Fixed Effect Model is the best model to use based on the chow test.

### Model Fit Test: Hausman Test

The model suitability test in the regression model using the Hausman test can be seen in Table 4.8.

Variabel Dependen	Cross-Section Random Prob.
ROA	0,0121
PM	0,8323
AT	0,8103
BOPO	0,0202

Source: processed data, 2020

Table 4.8 shows the probability value of the Random Cross-section obtained from the Hausman test results. Looking at the results in the table, it can be seen that in the Regression model with ROA and BOPO as the dependent variable, the probability value of Random Cross-section is 0.0121 and 0.0202. This value is less than the probability of 0.05, which means that for the regression model with the ROA and BOPO variables as the dependent variables, the Fixed Effect Model is used. Meanwhile, for the dependent variable PM and AT, the results of the Hausman test show that the Random Cross-section numbers are 0.8323 and 0.8103, respectively. This value is more than the probability value of 0.05. Therefore, it can be concluded that the best model for use in PM and AT research as the dependent variable is the Random Effect Model.

This study uses panel data regression analysis techniques. There are three models used in panel data regression, namely the Common Effect Model, Fixed Effect Model, and the Random Effect Model. It is necessary to determine the best model to be brought into the research being carried out. One of the methods used to determine the best model is to compare the R2 value in each estimation result of the panel data model.

Table 4.9. shows the R2 value of each panel data model estimate.

**Table 4.9. R2 value in panel data estimation**

Variabel Dependen	Nilai R <sup>2</sup>		
	Common	Fixed	Random
ROA	0.5892	0.8053	0.5692
PM	0.0711	0.7272	0.0446
AT	0.557	0.7825	0.1744
BOPO	0.4309	0.7164	0.4471

Source: Processed data, 2020

R2 of each panel data estimate can be seen in table 4.9. This value will be used to determine the best model to be used in the research. In the regression model with ROA as the dependent variable, it can be seen that the R2 value in the Fixed Effect Model is higher than the R2 value in the other models, which is 0.8053. Therefore, it can be concluded that in the regression with ROA as the dependent variable, the model brought into research is the Fixed Effect Model. The same thing applies to the regression model with PM, AT and BOPO as the dependent variable where the R2 value in the Fixed Effect Model is higher than the R2 value in the other models, namely 0.7272 for PM, 0.7825 for



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AT, and 0.7164 for BOPO. Thus it can be concluded that the model brought into research with PM, AT, and BOPO as dependent variables is the Fixed Effect Model.

### Model Estimation

The results of the calculation of multiple linear regression estimates using Panel Data analysis techniques are carried out using the Eviews 9 program can be seen in table 4.10.

**Table 4.10. Model estimation with PM as the dependent variable**

Dependent Variable: PM  
 Method: Panel EGLS (Cross-section weights)  
 Date: 02/15/20 Time: 03:37  
 Sample: 2014 2018  
 Periods included: 5  
 Cross-sections included: 9  
 Total panel (balanced) observations: 45  
 Linear estimation after one-step weighting matrix  
 White cross-section standard errors & covariance (d.f. corrected)  
 WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.460338	0.085862	5.361379	0.0000
PSR	-0.008928	0.003691	-2.418744	0.0216
ZPR	0.087882	0.032188	2.730281	0.0103
EDR	0.009915	0.003588	2.763314	0.0095
DEWR	0.008488	0.004985	1.702786	0.0986
IIR	0.000129	6.23E-05	2.063973	0.0475
Effects Specification				
Cross-section fixed (dummy variables)				
Weighted Statistics				
R-squared	0.727207	Mean dependent var	1.657799	
Adjusted R-squared	0.612810	S.D. dependent var	2.172403	
S.E. of regression	1.310193	Sum squared resid	53.21479	
F-statistic	6.356861	Durbin-Watson stat	2.424874	
Prob(F-statistic)	0.000012			
Unweighted Statistics				
R-squared	0.709266	Mean dependent var	0.676222	
Sum squared resid	65.12439	Durbin-Watson stat	1.215377	

Source: Processed data, 2020

Based on the results of data processing in table 4:10, the regression equation model can be obtained as follows:

$$PM = 0.4603 - 0.0089PSR + 0.0878ZPR + 0.0099EDR + 0.0084DEWR + 0.0001IIR$$

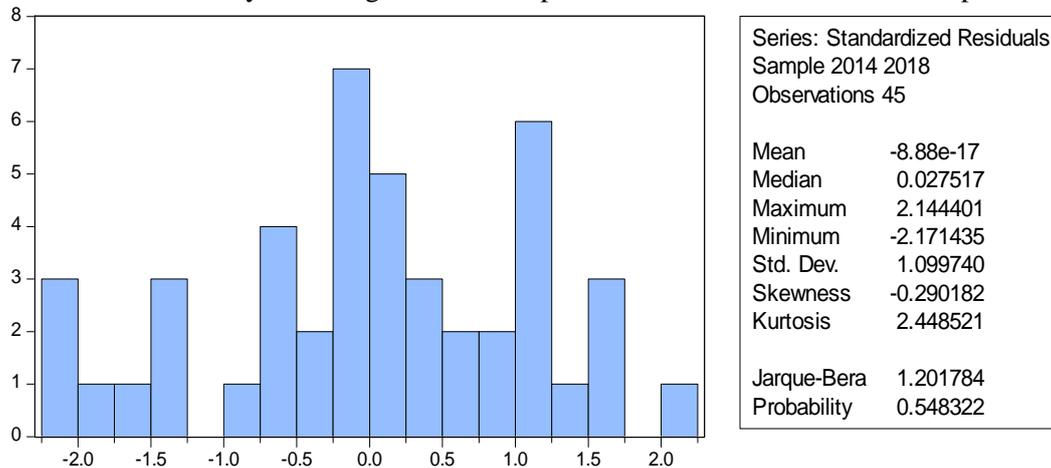
The estimation result of table 4.10 shows that the ROA value is 0.4603 if it is assumed that the independent variable is fixed (*ceteris paribus*). An increase in PSR by one percent with the assumption that other independent variables have a fixed value will decrease the ROA value by 0.0089 percent. Meanwhile, a one percent increase in the ZPR value will increase the ROA value by 0.0878 percent. If the EDR value increases by one percent, it will increase the ROA value by 0.0099 percent. An increase in the DEWR value by one percent will increase the ROA value by 0.0084

percent. Meanwhile, a one percent increase in the IIR value will increase the ROA value by 0.0001 percent, assuming that the other independent variables are constant.

#### 4.4 CLASSIC ASSUMPTION TEST

##### Normality test

The results of the normality test using PM as the dependent variable can be seen in Graph 4.3.



Source: processed data, 2020

**Graph 4.1. Normality test using PM as the dependent variable**

Based on Graph 4.1, it can be seen that the Jarque-Bera probability value is  $0.548322 > 0.05$ . That is, the Jarque-Bera probability value is greater than the significant level of 0.05 with a significant level of 95 percent ( $\alpha = 5$  percent), so it is stated that the residual data in the study with PM as the dependent variable is normally distributed.

##### Multicollinearity Test

The results of the multicollinearity test in this model can be seen in Table 4.11.

**Table 4.11. Panel Data Multicollinearity Test Results**

	PSR	ZPR	EDR	DEWR	IIR
PSR	1.000000	-0.009773	0.093787	-0.098007	-0.035341
ZPR	-0.009773	1.000000	-0.047138	0.025325	-0.051314
EDR	0.093787	-0.047138	1.000000	0.020849	0.005167
DEWR	-0.098007	0.025325	0.020849	1.000000	-0.183562
IIR	-0.035341	-0.051314	0.005167	-0.183562	1.000000

Source: processed data, 2020

Based on Table 4.11, it can be seen that the correlation value between the PSR and ZPR variables is  $-0.009773 < 0.8$ , the correlation value between PSR and EDR is  $0.093787 < 0.8$ , the correlation value between PSR and DEWR is  $(0.098007) < 0.8$ , the correlation value between PSR and IIR is  $(0.035341) < 0.8$  which indicates that there is no multicollinearity problem. The correlation value between ZPR and EDR is  $(0.047138) < 0.8$ , then the correlation value between ZPR and DEWR is  $0.025325 < 0.8$ . The correlation value between ZPR and IIR is  $(0.051314)$ . The correlation value between the EDR and DEWR variables is  $0.020849 < 0.8$ , and the correlation value between EDR and IIR is  $0.005167 < 0.8$ . The correlation value between DEWR and IIR is  $(0.183562) < 0.8$ . The results of the correlation value between variables concluded that all independent variables in the study were less than 0.8. Therefore, it can be concluded that there is no multicollinearity problem in the independent variables in the study.



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### Autocorrelation Test

#### Autocorrelation test results with PM as the dependent variable

Durbin-Watson stat	2.424874
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Source: processed data, 2020

Table 4.21 shows that the D-W test value is 2.424874 with a dU value of 1.7762 and a dL value of 1.2874 ( $dU < D-W < 4-dL$ ). Based on these results, the D-W value is greater than dU and less than 4-dL, it can be concluded that there is no autocorrelation disorder in the estimation model in this study.

### 4.5 HYPOTHESIS TESTING

#### F-Test Results

#### Panel data F-test results with PM as the dependent variable

F-statistics	6,356861
Prob(F-statistics)	0,000012

Source: processed data, 2020

Based on the results of the estimation and F-test in Table 4:26, the profitability value is  $0.000012 \leq 0.05$ , so  $H_0$  is rejected and  $H_a$  is accepted. That is, it can be concluded that simultaneously Profit Sharing Margin, Zakat Performing Finance, Equitable Distribution Ratio, Directors-employees Welfare Ratio, and Islamic income VS non-Islamic income have a significant effect on Profit Margin at Islamic commercial banks in Indonesia.

The results of hypothesis testing separately using the t-test with PM as the dependent variable can be seen in table 4.30.

**Table 4.12. Panel Data t-test results with PM as the dependent variable**

Variabel	Coefficient	t-Statistics	Prob.
PSR → PM	-0,008928	-2,418744	0,0216
ZPR → PM	0,087882	2,730281	0,0103
EDR → PM	0,009915	2,763314	0,0095
DEWR → PM	0,008488	1,702786	0,0986
IIR → PM	0,000129	2,063873	0,0475

Source: processed data, 2020

Based on Table 4.30, the results of the t-test between each independent variable on the dependent variable PM at Islamic commercial banks in Indonesia. The PSR variable has a variable probability value of  $0.0216 < 0.05$ , with a significant level of 95 percent ( $\alpha = 5$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient for PSR is -0.008928. So, it can be concluded that partially the PSR has a significant effect on PM in Islamic commercial banks in Indonesia.

The ZPR variable has a variable probability value of  $0.0103 < 0.05$ , with a significant level of 95 percent ( $\alpha = 5$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient for ZPR is 0.087882. So, it can be concluded that partially ZPR has a significant effect on ROA in Islamic commercial banks in Indonesia.

The EDR variable has a variable probability value of  $0.0095 < 0.05$ , with a significant level of 95 percent ( $\alpha = 5$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient for EDR is 0.009915. So, it can be concluded that partially EDR has a significant effect on PM in Islamic commercial banks in Indonesia.

The DEWR variable has a variable probability value of  $0.0986 < 0.1$ , with a significant level of 10 percent ( $\alpha = 10$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient for DEWR



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is 0.008488. So, it can be concluded that partially DEWR has a significant effect on PM in Islamic commercial banks in Indonesia.

The IIR variable has a variable probability value of  $0.0475 < 0.05$ , with a significant level of 95 percent ( $\alpha = 5$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient for IIR is 0.000129. So, it can be concluded that partially IIR has a significant effect on PM in Islamic commercial banks in Indonesia.

### Result of the Coefficient of Determination (R<sup>2</sup>)

#### R<sup>2</sup> test with PM as the dependent variable

R-Squared	0,727207
Adjusted R-Squared	0,612810

Source: processed data, 2020

Based on the results of the R<sup>2</sup> test in table 4.34, the coefficient of determination is 0.727207, which means that the PM variable is determined by the variation of the PSR, ZPR, EDR, DEWR, and IIR variables of 72.72 percent. Meanwhile, 27.28 percent is determined by other variables outside the regression model used in the study.

### 4.6 DISCUSSION

Based on the results of panel data regression using the estimated general least square (EGLS) method, the PSR variable has a negative and significant effect on PM. The probability value of 0.0216 with a coefficient of 0.0089 means that an increase in the PSR value of 1 percent will decrease the PM value by 0.0089 percent. Based on the theory, the profit sharing ratio should have a significant positive effect, where the financing made by Islamic banking will increase the amount of net profit obtained. The higher the financing, in this case, the mudharabah & musharaka are able to contribute to the profits of the company. If the profit margin ratio is high enough in Islamic banking, it will make it easier for management to determine future steps for Islamic banking, especially in implementing a sales strategy with pricing. High profit margins make Islamic banking more productive because they are able to control operational costs. In addition, profit margins can attract investors. However, the results of the study show an opposite relationship, this happens because the PSR instruments namely mudharabah, musyarakah, and total financing in 8 of the 9 research banks tend to decline. The decline in financing has a negative effect on the profit margin variable.

The regression results using the panel data regression method showed that the ZPR variable had a positive and significant effect on PM. The coefficient value of ZPR of 0.0878 means that an increase in the ZPR value of one percent will increase the PM value by 0.0878 percent. Zakat is a form of purification (tazkiyah) of wealth in Islam. The income that is generated in a good and lawful way even though on their own efforts, still has to be disbursed because there are other people's rights. This is because zakat is one of the sharia accounting principles that must be paid by sharia entities so that it has become an obligation of sharia banking which is then disclosed in reports on the sources and use of zakat funds. The greater the zakat paid, the higher the profits obtained by Islamic banking, because the assets obtained must be sanctified, one of which is by paying zakat. The results show that ZPR has a significant positive effect on profit margins, this shows that banks have implemented business according to Islamic concepts.

Based on the regression results using the panel data regression method, the EDR variable has a significant positive effect on PM. The coefficient value of the EDR is 0.0099. This means that an increase in the EDR value of one percent will increase the PM by 0.0099 percent. A high profit margin indicates a high level of profit, meaning that the distribution of income to stakeholders will be higher. This is evidenced by the increase in profit margins in each Islamic bank during the last five years, namely 2014-2018. Triyuwono (2009) states that in Islamic accounting, the goal of Islamic



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economics is equal distribution of welfare for all people. Islamic principles emphasize justice, so even in the distribution of income, each stakeholder has the right to receive his share fairly. The results of the research which shows that EDR has a significant positive effect on PM proves that the stakeholders have received their rights in an appropriate portion, this is shown in the EDR table in the last five years in each Islamic banking on average has increased.

Based on the panel data regression results that have been carried out in this study, it can be seen that the DEWR variable has a positive and significant effect on PM. The coefficient value of DEWR is 0.0084, which means that an increase in the DEWR value of one percent will increase the PM value by 0.0084 percent. Based on the calculation ratio, it shows that the average Islamic banking allocates benefits to directors and employees fairly. The distribution of welfare to stakeholders is one of the concepts promoted in the shariah enterprise theory in which employees are one of these stakeholders. Aspects of justice are needed to eliminate exploitative values that lead to a loss of balance, Chapra (2000). The goal of Islam is to create a healthy balance between individual and societal interests according to the principles of the Prophet.

The results of this hypothesis test support research conducted by Maisaroh (2015) which reveals that directors employee welfare ratio has a positive effect on bank profitability. general of sharia in Indonesia. This means that Islamic Banking, in this case, has distributed welfare fairly and according to their respective parts, both employees and directors as managers and stakeholders who are directly related to banking operational activities. Fair distribution of salaries will improve the performance of employees and directors, then this performance increase will increase the profit margin (PM) in Islamic banking. Fair distribution also shows that Islamic banking has carried out its mandate, namely in the form of horizontal accountability as khalifatullah fil ardh which carries the mission of creating and distributing welfare for all humans and nature (Triyuwono, 2009).

In the panel data regression results, it can be seen that the IIR variable has a positive and significant effect on PM at Islamic commercial banks in Indonesia. The coefficient of the IIR variable is 0.0001. This means that an increase in the IIR value by one percent will increase the PM value by 0.0001 percent. Profit margin is an indicator of Islamic banking to measure the net profit of a certain period. Operating income will affect the financial performance of Islamic banking. Halal income is one of the components of banking operating income, which activities must be in accordance with the core business of sharia. So if halal income increases, it will increase the IIR value of Islamic banking. The positive influence given by IIR is in line with the increase in halal income of Islamic banking during 2014-2018. The increase in IIR value will increase the profit margin.

### 5. CONCLUSION

Based on the estimation results using the Estimated General Least Square (EGLS) method regarding the Comparison of the Effect of the Islamicity Performance Index on Sharia Profitability and Conventional Profitability at Islamic Commercial Banks in Indonesia 2014-2018, it can be concluded that simultaneously, the Islamicity Performance Index (IPI) has a significant influence on Profit Margin. Partially, all IPI variables have a significant effect on Profit Margin in Islamic commercial banks in Indonesia for the 2014-2018 period.

### LIMITATION AND STUDY FORWARD

#### Limitation

The results of this study only apply to the nine sample Sharia Commercial Banks so that they are unable to describe the overall level of BUS profitability. This study only uses five of the six variables of the Islamicity Performance Index (IPI), so further research is needed that is able to describe the effect of IPI on the dependent variables.

#### Study forward

This research takes a vulnerable time of 5 years and the banks that were tested were only 9 banks. This study only uses five of the six variables of the Islamicity Performance Index (IPI), so further



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research is needed that is able to describe the effect of IPI on the dependent variables. Further research is also needed to get a clear picture of the comparison of Islamic financial performance measurement tools.

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## PRIVACY CONCERNS IN PERSONALIZED ADVERTISING EFFECTIVENESS ON SOCIAL MEDIA

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### Abstract

**Purpose:** This study aims to fill the gaps in previous research by examining the role of consumer privacy concerns as a moderating variable that affects the relationship of personalized advertising on the perceived value of consumers

**Research Methodology:** Using quantitative approach and a survey method on 131 respondents who are active users of Instagram in Indonesia.

**Results:** The findings of this study that personalized advertising has a positive effect on advertising value and purchase intention and privacy concerns do not moderate the effect of personalized advertising on advertising value.

**Limitations:** This research still cannot be generalized because it only uses 131 respondents. With the rapid development of ad personalized in various media, both social media and in e-commerce, research related to advertising personalization has not provided sufficient understanding and evidence so that research related to this field still needs to examine in a different context.

**Contribution:** This helps the company to set a very accurate advertising personalization so that the more personalized the advertising, the more useful the advertising for customer.

**Keywords:** *Personalized Advertising, Advertising Value, purchase intention*

### 1. INTRODUCTION

Social media is also known as a form of social networking, discussion forums, reviews, and blogs that have dominated the Internet today (Zhang & Mao, 2016). One of the popular social media in Indonesia is Instagram. It is supported by Indonesia's entry into the world's 4th rank by having a total of 63 million Instagram users in 2020 (Statista, 2020). This happens because Instagram always makes innovations that make it easy to use, both for users looking for information entertain, and for marketers who want to use Instagram as a media promotion. One of the innovations that Instagram has in making it easier for marketers to promote products is the innovation of paid advertising. These paid advertising make the ads that appear on the user's Instagram page customize to personal information, consumer demographics, interest in certain accounts, and the user's current location. In various researches customize advertising, targeting, tailoring is referred to as personalized advertising (Boerman et al., 2017). According to Baek & Morimoto (2012), personalized advertising is a form of a promotional message sent to consumers through paid media, which is arranged based on personal information such as user names, purchase history, psychographic aspects, location, and user lifestyle. So, each user can receive different advertisements, because marketers compile advertisements and deliver advertisements that are very relevant to the current location and the environment around each consumer (Tong et al., 2020). Thus, personalized advertising has advantages when compared to advertisements in other media, such as being easily accessible to users. Even though it has various positive advantages, the effectiveness of personalized advertising in the context of social media has not provided sufficient evidence because it has not been widely studied (Shanahan et al., 2019).

There have been various past studies on personalized advertising with inconsistent results. Research (De Keyzer et al., 2015; Kim & Han, 2014; Lee et al., 2017; Shanahan et al., 2019; Van Reijmersdal



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et al., 2017; Dehghani et al., 2016) provide positive results on perceptions and behavior such as the more personalized advertising, it encourages positive responses like user purchase intentions, ad value, consumer involvement as well as on brand engagement and loyalty. The results are contradictory to research Kim & Han (2014) which states that personalization does not have a positive effect on advertising value and has not provided an explanation regarding why advertising personalization does not have a significant effect on advertising value. This is influenced by various factors such as individual factors such as personality or experience and also the context in which the research was conducted. Boerman et al., (2017) doing a literature review related to personalized advertising seen from various perspectives of consumers, marketers and also discussed the outcomes of advertising personalization such as consumer responses from various studies and different contexts. The results of this study state that consumer perceptions, knowledge, and responses to personalized advertising can change over time and the development of technology.

So, it is very necessary to do research related to personalized advertising with various research methods. Boerman et al. (2017) also stated that in the current big data era, research related to the use of data in this case is personalized advertising is very important for various parties such as marketers, consumers, researchers, and policies. However, research related to how consumers' perceptions of personalized advertising have not much testing (Brinson et al., 2019). So, this study aims to fill the gaps in various studies by examining how personalized advertising is the perceived usefulness of consumers that will measure using the advertising value variable on consumer responses on social media Instagram.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Personalized Advertising, Advertising Value and Privacy Concern

Social media is considered to be one of the greatest environments in which users interact with each other. This is also used by marketers in promoting their products to target consumers, of course this requires a large cost. One of the paid media in marketing products is using personalized advertising. There are many definitions of personalized and called different names but with the same definition, there are online behavioral/behavioral advertising, online behavioral/ behavioral targeting, customized advertising, personalized/ personalized, or online profiling (Boerman et al., 2017). Personalized advertising is defined as a form of a promotional message sent to consumers through paid media which is arranged based on personal information such as user names, purchase history on the internet, psychographic, location, and user lifestyle (Baek & Morimoto, 2012). There are still few studies that test how effectively advertising personalization is applied in the context of social media. Research by Shanahan et al (2019) tested advertising personalization and was found to have a positive effect on brand attachment and brand engagement and in Lee et al. (2017) personalized advertising also affects the value of advertising. However, advertising personalization also has negative effects, such as intrusive to consumers. This is because it is related to the use of customer data in adjusting advertisements (van Doorn & Hoekstra, 2013). The aspect of privacy in the online context cannot be separated, the more complete the information, the easier it is for companies to target. Privacy is also very attractive in various fields and is still a paradox because one side provides positive things such as convenience, but on the other hand raises concerns regarding the misuse of this information. In Liang & Shiau (2018) the higher the level of consumer privacy concerns has a negative effect on repurchase intentions and consumers who have low privacy concerns can have high repurchase intentions and have an effect on increasing consumer satisfaction.

### Hypothesis Development

In the era of the Internet of things, today's consumers are increasingly selective when they want to buy a product. Consumers are always looking for information through various media before buying a product, from reviews in e-commerce, to reading content and blogs or from influencers. Personalized advertising has more advantages compared to other advertising strategies, such as the right delivery at the right time, such as messages that match interests, interests, to previous consumer search history.



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Thus, advertising personalization creates benefits for both customers and marketers because it provides the right preferences according to consumer needs. (De Keyzer et al., 2015; Kim & Han, 2014; Lee et al., 2017; Van Reijmersdal et al., 2017; Shanahan et al., 2019; Dehghani et al., 2016) stated that personalization has a positive relationship both on consumer attachment, the value of advertising to customer loyalty. So that the hypothesis is formed:

**H1: Personalized advertising has a positive effect on the value of advertising**

Feelings of liking or disliking an object can lead to consumer attitudes and behavior (Zhang & Mao, 2016). When consumers perceive personalized advertising as a beneficial advertisement, consumers can lead to positive attitudes and behaviors such as purchase intention for products displayed by marketers. Consumers with positive attitudes to advertising have shown positive responses such as purchase intention for brands in ad impressions (Lee et al., 2017). Consumers who consider advertisements useful then lead to positive behavior such as purchase value and are also involved in the brands advertised by marketers (Shanahan et al., 2019). So, that the following hypothesis can be formed:

**H2: Advertising value has a positive effect on purchase intention**

Personalized advertising impressions that match the current location, likes, interests, and consumer search history cannot be separated from the collection and use of information in its compilation. For some people, this can be considered a violation of privacy. When consumers who have privacy concerns see ad impressions, namely ad personalization, consumers can feel suspicious and worried. Liang & Shiau (2018), the higher the level of consumer privacy concerns has a negative effect on repurchase intentions and consumers who have low privacy concerns can have high repurchase intentions and have an effect on increasing consumer satisfaction. van Doorn & Hoekstra (2013) also uses a moderating variable for privacy concerns, the results of his research states that advertisements are considered less useful for users with high privacy concerns, so the following hypothesis is formed:

**H3: Privacy concerns moderated the negative effect of advertising personalization**

### 3. RESEARCH METHODOLOGY

The quantitative approach is used in this study with primary data collected from the results of online questionnaires for active Instagram users. The sampling technique in this study used a purposive sampling type non-probability sampling, with criteria. The sample used in this study was 131 active Instagram user respondents aged 17- 25 years. Before testing the hypothesis, the instruments used in this study were tested with validity and reliability tests. If the Average Variance Extracted (AVE) value > 0.5 (Hair et al., 2010) then the research instrument is said to be valid. A reliability test was also carried out by looking at Cronbach's alpha value, it can be said to be reliable if the alpha value is > 0.7. (Hair et al., 2010). After making sure the instrument is valid and reliable, hypothesis testing is carried out with the help of the Wrap PLS 6 analysis tool.

### 4. RESULTS AND DISCUSSIONS

The path coefficient of hypothesis one is p-value <0,01 with a value of  $\beta = 0.60$  it means that personalized advertising has a positive effect on the advertising value (Supported H1). Instagram users have a belief that personalized advertising that is accurate and highly relevant to consumers makes it very easy for consumers to receive information related to the desired product and following their need so that it is considered to provide benefit. Therefore, the more advertisements are adjusted to the user's interests, purchase history, interests, and location, the more advertisements provide a level of benefit that makes users feel given the convenience of shopping. The results of this study contradict research (Kim & Han, 2014) and are in line with the research results of Dehghani et al., (2016) and Lee et al. (2017).

The path coefficient hypothesis 2 has a significance value with p-value 0,01 and value of  $\beta = 0.52$  that's mean advertising value effect on the purchase intention of personalized products (H2 Supported). This means that users who feel that this personalization provides benefits can lead to



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positive attitudes and behaviors such as intending to buy the advertised product. The results of this study are supported by research conducted by (Haghirian & Inoue, 2007; Kim & Han, 2014; Lee et al., 2017; Martins et al., 2019; Martins et al., 2019; and Dao et al., 2014).

Furthermore, the results of hypothesis testing 3, privacy concerns moderate the positive effect of advertising personalization on the value of advertising, which has a significant value of  $P > 0.05$ , meaning that privacy concerns do not have to moderate the effect of personalized advertising on advertising value (H3 is not supported). The findings of this study can explain that Instagram users still accept and like personalized advertising even though they have high privacy concerns, this is greatly influenced by the respondent factor where the respondents of this study are on average 17-25 years old who are still included in the millennial generation who have experienced it from the beginning of the convenience of the internet. The results of this study contradict research van Doorn & Hoekstra (2013), which shows that consumers who have high concerns can reduce their intention to buy advertised products even though the advertisements match their interests.

**Tabel 1. Research Results**

<b>Hipotesis</b>	<b>Sig</b>	<b>Keterangan</b>
<b>H1: PA -&gt; AV</b>	<b>0,00</b>	<b>Supported</b>
<b>H2: AV-&gt;PI</b>	<b>0,00</b>	<b>Supported</b>
<b>H3: PA-&gt;PC-&gt;AV</b>	<b>0,07</b>	<b>Not supported</b>

**Information:** PA= Personalized Advertising, AV= Advertising Value, PI= Purchase Intention, PC=Privacy Concern

### 5. CONCLUSION

The purpose of this study is to fill the gaps in previous research by examining how the effect of personalized advertising on the advertising value of and purchase intention is considered a measure of the effectiveness of personalization in Indonesian. In this research, personalized advertising has a positive effect on advertising value and also a positive effect on purchase intention. But the moderating effect of privacy concern didn't moderate the relationship between personalized advertising to advertising value. The results of this study indicate that respondents feel that personalized advertising provides benefits even though it uses personal information. This helps the company to set a very accurate advertisement personalization so that the more personalized the more usefulness for customer.

### 6. LIMITATION AND STUDY FORWARD

This research still cannot be generalized because it only uses 131 respondents. Future research is expected to increase the number of respondents so that they can be generalized. With the rapid development of ad targeting in various media, both social media and in e-commerce, research related to advertising personalization has not provided sufficient understanding and evidence so that research related to this field still needs to examine in a different context.

### ACKNOWLEDGEMENT

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## GOOD CORPORATE GOVERNANCE, AFFECTIVE COMMITMENT AND JOB SATISFACTION IN REGIONAL OWNED ENTERPRISES

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### Abstract

The prime objective of the current study is to explore the nexus between good corporate governance, affective commitment, and job satisfaction. How affective commitment impacts change from other attitudes will bring more insight into the construct. The role of affective commitment in this model is worth examining. In particular, affective commitment is not often seen as a mediation in the literature. However, it may so change people's attribution processes that the impact of other attitudes will change. Employing the survey-based methodology, the SEM-PLS technique is used to test the hypothesized relationships. So, the current study has used SEM-PLS as a statistical tool to answer the research questions raised in this study and research objectives envisaged in the current study. The data is collected from the 3 Regional Drinking Water Company (PDAM) areas; Palembang, Ogan Ilir, and Banyuasin. Respondents consisted of 141 respondents. The research findings have provided support for the theoretical basis and hypotheses proposed from this study. The current study will benefit companies to increase the role of affective commitment in organizations. The current study will be of benefit to policy makers and practitioners in understanding issues related to Good Corporate Governance, Affective Commitment, and job satisfaction.

**Keywords:** *good corporate governance, affective commitment, job satisfaction*

### 1. INTRODUCTION

The success of a company is largely determined by the adequacy and quality of its resources, especially the human resources owned by the company. Human resources are the most important subjects in determining the company's success in achieving its goals. Human resources are company assets that must be maintained and developed so that their work productivity is optimal and can provide maximum contribution to the overall productivity of the company. According to disconfirmation theory, employees compare their job performance and expectations for the job and evaluate their job positively or negatively (Han, Meng, & Kim, 2017); (Lee, Back, & Chan, 2015).

Corporate Governance is a set of regulations governing the relationship between shareholders, company managers, creditors, government, employees, and other internal and external stakeholders with regard to their rights and obligations or in other words a system that controls company. The purpose of corporate governance is to create added value for all interested parties (stakeholders).

Corporate governance is the exercise of authority over members of the corporate community based on formal structures, rules and processes. This authority is exercised in accordance with a set of rules defining the rights and powers of shareholders, boards of directors and managers (Steiner, Steiner, & Steiner, 1994). Corporate governance is a control system that helps companies effectively manage economic resources. Corporate Governance is a mechanism used to reduce agency problems between managers and shareholders, including internal decision and control systems and outside market effects.

The existence of Regional Owned Enterprises (BUMD) as a business institution owned and managed by the local government has a strategic role in regional economic development. The existence of BUMD is believed to provide a very large multiplier effect for the economy of the community, especially in the regions. It is hoped that the establishment of BUMD can open new jobs, drive productive economic sectors, and can increase Regional Original Income (PAD). Like a company,



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BUMD has the task of managing a business that has profit prospects, where this benefit will be an income for the region to finance regional development. Regional Drinking Water Company (PDAM) is one of the regionally-owned enterprises located in every province, district and city throughout Indonesia. PDAM is a regional company as a means of providing clean water which is supervised and monitored by local governments. PDAM as a regional company is given the responsibility to develop and manage a clean water supply system and serve all consumer groups at affordable prices. In addition, PDAM is responsible for day-to-day operations, activity planning, project preparation and implementation, and negotiations with the private sector to develop services to the community.

Regional Drinking Water Company (PDAM) is different from pure private companies which are always profit oriented. One of the goals of the PDAM is to participate in carrying out regional development in particular, and national economic development in general, by providing clean, healthy drinking water and meeting health requirements for the people in an area, which is also a form of services provided by the government to Public.

The performance evaluation of PDAM region I, especially in the province of South Sumatra, totaling 3 PDAMs can be seen in table 1. The performance of PDAM districts / cities in South Sumatra is as follows:

**Table 1 PDAM Region I Performance in South Sumatra Province**

No.	PDAM	Kategori Kinerja PDAM	Performance
1	PDAM Kota Palembang "Tirta Musi"	3,74	HEALTHY
2	PDAM Kabupaten Banyuasin "Tirta Betuah"	2,14	SICK
3	PDAM Kabupaten Ogan Ilir "Tirta Ogan"	1,77	SICK

Source: BPPSPAM, 2018

Based on this data, it can be seen that the number of PDAMs in the sick category is more than the healthy category. In South Sumatra Province, 1 PDAM is in the healthy category, 2 PDAMs are in the sick category. PDAMs that are in the unhealthy and sick category are PDAMs whose financial, service, operational and human resource performance is below the predetermined standards.

Referring to keputusan Menteri Dalam Negeri Nomor 47 Tahun 1999 on Guidelines for PDAM Performance Assessment, it is stated that the purpose of establishing a PDAM is to fulfill services and needs for clean water for the community. To achieve the above objectives, the operation and management of PDAM must be based on sound corporate economic principles and principles. For this reason, in the future perspective, the management of Regional Owned Enterprises including PDAM is expected to be able to adopt the principles of good corporate governance (GCG) in its implementation.

The concept of GCG is not something new for corporate management. A good pattern, system and process can be used by company organs to provide added value to shareholders on an ongoing basis in the long term, while still paying attention to the interests of other stakeholders, GCG is a combination of processes and structures implemented by the company to inform, direct, manage, and monitor the organization's activities towards the achievement of its objectives (Hey, 2017).

The research that will be carried out aims to see how effective and how effective GCG is on job satisfaction. By looking at the sick and healthy conditions of the PDAM, it means that there is mismanagement in running the company organization. This study took a sample of respondents from 3 PDAM areas namely Palembang, Ogan Ilir, and Banyuasin. Respondents consisted of 141 people who were selected randomly.



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This study includes the affective commitment research variables. the role of affective commitment in this model is worth examining. In particular, affective commitment is not often seen as a moderator in the literature. However, it may so change people's attribution processes that the impact of other attitudes will change. Studies exploring the mechanisms underlying how affective commitment impacts change from other attitudes will bring more insight into the construct.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Good Corporate Governance

The birth of the term "good corporate governance" (GCG) for the first time in 1970 in the United States, emerged after the occurrence of corporate scandals and corrupt practices committed in companies. The birth of this GCG was due to demands from external parties so that the company would not commit fraud against the public, namely that information in the form of financial reports that the company provides can be trusted for decision making. Good corporate governance appears as an option that is not only a formality, but also a value system that is very influential in increasing company value. There is an opinion that the economic crisis that occurred in Southeast Asia and other countries was not only caused by macroeconomic factors but also due to weak corporate governance in these countries (Iskander & Chamlou, 2000).

The implementation of GCG in private companies and government companies, especially those in Indonesia, is expected to improve performance components, both in terms of systems, processes, planning and implementation. In addition, with GCG, the company does not commit fraudulent practices, is more transparent and accountable in running its business and can manage the company well, besides that the company is expected to comply with regulations set by the government. What is meant by regulation here is the law which adheres to business activities.

The literature on GCG in developing countries has adopted an institutional perspective, but what remains unknown is a clear identification of the establishment of the effectiveness of GCG. (Nakpodia & Adegbite, 2018). GCG has 5 (five) main principles or principles; transparency, accountability, responsibility, independence, fairness. (Svärd, 2017).

Benefits of Application of Good Corporate Governance By implementing corporate governance, according to (Andriana & Panggabean, 2016), there are some benefits acquired: (1) improve a company's performance through the creation of a better decision making process, improve operational efficiencies, and improve company's service to stakeholders (2) Simplify obtaining cheaper and non-rigid financing (because of a trust factor), which in turn will increase the Corporate Value, (3) Restoring the confidence of investors to invest in Indonesia, (4) shareholders will be satisfied with the performance of the company as well by increasing Shareholder Value and dividends.

In Indonesia, the issue of GCG began to be discussed in 1999 after the monetary crisis hit Indonesia by the Indonesian government and the International Monetary Fund (IMF) in the context of economic recovery. The monetary crisis is a sad history for the Indonesian economy. Many companies and banks have collapsed, until they have to be liquidated. This condition is a milestone for the formation of the Komite Nasional tentang Kebijakan Corporate Governance (KNKCG) through a decree of the coordinating minister for ECUIN NO: KEP-10 / M. ECUIN / 1999 dated August 19, 1999, which has published the Code of Good Corporate Governance.

The provisions governing the principles of GCG is the Decree of the Minister of BUMN Number 117/2002 which states that the meaning of the principles of GCG is as follows:

- a) Transparency / openness (Transparency) Transparency is openness in implementing the decision-making process and openness in presenting material and relevant information about the company. There are 3 indicators in assessing the transparent attitude of the company: 1. Financial and Operating 2. The condition of the company 3. Share Ownership For example: transparency in determining employee salaries, making decisions through meetings, having clear objectives and



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company organizational structure, openness regarding financial statements company and the company's financial condition.

- b) **Accountability** The company must be accountable for its performance in a transparent and fair manner. Thus, the company must be managed properly, measured and in such a way that it is in line with the company's interests by taking into account the interests of shareholders and other stakeholders. Accountability is also commonly referred to as the clarity of the function of implementation and responsibility of organs so that company management is carried out effectively. For example: there is a complete assignment report from each employee.
- c) **Responsibility** The company must comply with laws and regulations and fulfill its responsibilities to society and the environment for the purpose of maintaining the long-term sustainability of the business and to be recognized as a good and healthy corporate citizen. For example: employee compliance with company regulations and company code of ethics.
- d) **Fairness** is the principle of equality and fairness. In carrying out its activities, a company must always consider the interests of shareholders and other stakeholders based on the principle of equality. For example: providing promotion and career opportunities to all employees regardless of ethnicity, religion, race, class, gender and physical class.

Corporate governance is a control mechanism to regulate and manage a business with the aim of increasing the prosperity and accountability of the company with the ultimate goal of realizing shareholder value. Corporate governance is needed to control the behavior of company managers so that they act not only to benefit themselves, but also to benefit company owners, or in other words to equalize the interests of company owners with managing the company. (Oktafia, 2011).

### **Affective Commitment**

Affective commitment is a significant factor determining the degree of dedication and loyalty toward the company. Employees who are emotionally committed tend to try on their own to reach the companies goals and maintain a relationship with the company (Mowday, Porter, & Steers, 2013). This can be expressed as the employees' desired emotion, attachment, or belonging feeling through their emotional sympathy for either the tangible or intangible subject that they experience (Yang, Chen, & Chien, 2014).

Organizational commitment is explained with three concepts, namely affective commitment, continuance commitment, and normative commitment. Affective commitment refers to employees' emotional attachment to an organization, which drives them to stay in the organization (Mowday et al., 2013).

Organizational commitment is very important for organizations in today's competitive business world, because they always need talented employees. It is a measure of an employee's identification with his organization (Fu, Deshpande, & Zhao, 2011).

Affective commitment according to Allen & Meyer (1990) can be measured through indicators of pleasure, sense of belonging, emotional attachment, and personal meaning. An employee who has an affective commitment in himself will show a sense of pleasure in the organization so that he has a sense of belonging because he is part of the organization. Another indicator of affective commitment, namely emotional attachment, is related to the feeling of being emotionally attached to the organization so that the desire to stay in the organization arises. Affective commitment can be defined as a situation where an employee is united with the company where he works (Allen & Meyer, 1996).

Commitments that bind someone emotionally in the organization are called affective commitments (Han et al., 2017). Employees with high affective commitment will show better performance than employees with low affective commitment because they have emotional attachments that create a sense of belonging to the organization and will always strive better for organizational progress.



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### **Job Satisfaction**

Job satisfaction as workers' attitudes towards their work, the rewards they get, and the social, organizational, and physical characteristics of the environment in which they perform work activities. (Leap & Crino, 1993) . while Robbins (2016) see job satisfaction as a person's general attitude towards his job.

Job satisfaction is defined as "a pleasant or positive emotional state that results from appraising one's job or work experience." (Locke, 1976). Since the 1930s when job satisfaction research became popular, job satisfaction has been one of the most studied topics in the field of organizational behavior. (Jayaratne, 1993).

The employees of a company feel satisfied in an environment which offers them the opportunity for professional and personal development that brings them well-deserved recognition, which is a guarantee for achieving organizational efficiency and success (Petrova et al., 2020). The more the conditions of professional development and self-improvement of human resources in business organizations, the more likely the person is to develop a commitment to the conditions offered by each organization, which ensures the achievement of organizational efficiency and success.

Good conditions and satisfaction with the work done are the success of the entire company. This supports dynamic development and encourages innovation (Pukała, 2016). So it is the source of organizational success. Job satisfaction maintains good relationships within the organization based on positive employee attitudes towards various factors in the workplace. Since the ultimate goal of a company can be achieved through efficient business attitudes and rational organizational behavior, it is a concept that must be seriously considered (Koo, Yu, Chua, Lee, & Han, 2020). The empirical results show that emotional rewards partially affect job satisfaction. In particular, among the sub-factors of emotional appreciation, empowerment and recognition have a positive and significant impact on job satisfaction. a properly planned reward system is essential for a profitable outcome.

### **Good Corporate Governance and Job Satisfaction**

The principles of Good Corporate Governance in Employee Performance, it can be concluded that: The variable of openness has an effect on employee performance. Accountability variable affects employee performance. The responsibility variable affects employee performance. The independence variable has an effect on employee performance. Fairness variables affect employee performance. (Negari & Asyik, 2018).

GCG can be regulated by the authority of all parties in the company and the supervisory function can be optimized to reduce the occurrence of fraud committed by various parties in the company for their own interests. The existence of GCG is expected to reduce conflicts of interest that may occur that hinder the progress of the company's financial performance (Xu & Xia, 2012).

The implementation of GCG in private companies and government companies, especially those in Indonesia, is expected to improve performance components, both in terms of systems, processes, planning and implementation. In addition, with GCG, the company does not commit fraudulent practices, is more transparent and accountable in running its business and can manage the company well, besides that the company is expected to comply with regulations set by the government. The implementation of GCG is expected to be beneficial to increase and maximize company value. GCG is expected to find a balance between various interests that can provide comprehensive benefits for the company. However the research was carried out by (Debby, Yuniarti, & Saputra, 2013) found two important findings. first, managerial ownership has a negative effect on firm value. Second, the audit committee has a negative effect on firm value. The results of previous studies indicate that the effect of corporate governance on firm value has not been consistent. (Fruin & Eberhart, 2012), who found that GCG has a positive effect on company value.



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### **Affective Commitment and Job Satisfaction**

Organizational commitment has been linked to employee employment by previous research studies. As an example, (Ahmed, 2016) found a positive relationship between employee performance and organizational commitment. (Bedoya, Alzate, & Giraldo, 2018) that there is a significant and positive influence created on employee performance by organizational commitment. (Umrani, Kura, & Ahmed, 2018) in his study in Taiwan that construction results are created by organizational commitment to work performance. (Massaro, Dumay, & Garlatti, 2015) found that there was a significant relationship between affective commitment and work performance. (Hoque, Gwadabe, & Rahman, 2017) Affective commitment was found to be significantly associated with job performance from all three dimensions (affective, continuous, and normative) of organizational commitment. research that organizational commitment and employee involvement create an influence on human resource management practices, performance and productivity are also affected (Sriviboon, 2020).

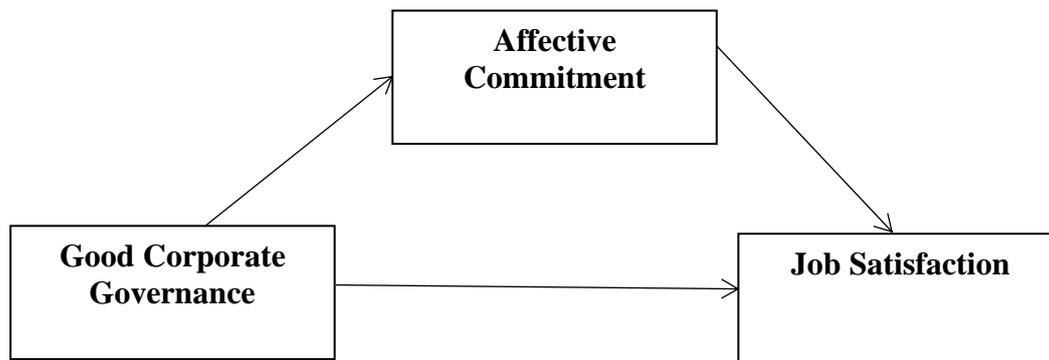
The significant effect created by organizational commitment to organizational performance (Kerdpitak & Boonrattanakitthummi, 2020). The results showed that there was a significant and positive relationship between HR strategy hard / soft orientation, continuity, and the affective component of commitment. However, there is a negative relationship between normative commitment and hard HR. An organizational attitude that cares about its employees is considered soft HRM and limited or rigid behavior is indicated by hard HRM. It is recommended by the study that strategic HRM policies and practices should be developed by the organization, which can maintain organizational commitment among employees as well as improve performance.

The positive and direct effect of Job Satisfaction on employee affective commitment and indirect impact on job performance Dinc & Plakalovic, (2016) These results are consistent with the findings (Allen & Meyer, 1990). Aydogdu & Asikgil (2011), investigated the relationship between job satisfaction, organizational commitment, and intention to move in Turkey. The results showed that job satisfaction has a significant and positive relationship with the three dimensions of organizational commitment (affective, continuous, and normative). Lumley, Coetzee, Tladinyane, & Ferreira (2011) explored the relationship between employee job satisfaction and organizational commitment in South Africa. The results show a significant relationship between job satisfaction, and affective and normative commitment.

Research relating the direct and indirect relationship between job satisfaction, organizational commitment, and attitudes to organizational change and its dimensions in local contexts of multicultural governance concludes that certain aspects of job satisfaction have a direct and indirect effect on various dimensions of attitudes towards organizational change. Organizational commitment plays a mediating role between various aspects of job satisfaction and different dimensions of attitudes toward organizational change. (Yousef, 2017).

Allen & Meyer (1990) found a positive correlation between JS and affective commitment. On the other hand, several studies have shown a positive and significant relationship between JS and job performance. (Iqbal, Latif, & Naseer, 2012) found that JS had a positive effect on the work performance of respondents from various universities. (Aftab, 2012) also found a positive relationship between JS and the work performance of 335 employees working in the banking sector.

Based on the above literature, this study proposes two hypotheses as follows:



**Figure 1. Research framework**

Figure 1. Research framework

The preceding framework has led to hypothesize the following research hypotheses:

- H1: The Good Corporate Governance is in a significant relationship with the Affective Commitment
- H2: The Good Corporate Governance is in a significant relationship with Job Satisfaction
- H3: The Affective Commitment is in a significant relationship with the Job Satisfaction
- H4: Affective Commitment mediates the relationship between Good Corporate Governance and Job Satisfaction

### 3. RESEARCH METHODOLOGY

Data analysis in this study was carried out with the help of the Smart PLS Version 3 software package. In its implementation, two evaluation models were used, namely the Outer Model assessment or the measurement model using the convergent validity test, discriminant validity, and composite reliability and the Extracted Mean Variance. And assess the structural model or inner model using the R-squared (R<sup>2</sup>) test and the path coefficient estimation test.

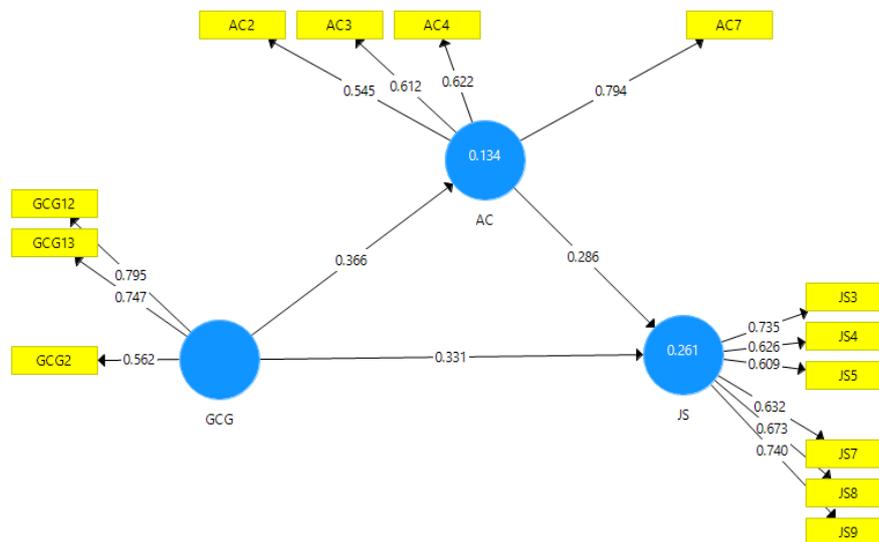
According to researchers, PLS models are generally analyzed and interpreted in two stages; the first measurement is the external model for validity and reliability and the second, analyzes the structural model with R square, effect size, predictive model relevance, and goodness of fit (GOF) (Hair, Ringle, & Sarstedt, 2011). In the first stage, the property of the multi-item construction is measured by including convergent validity and discriminant validity. After the second stage, the research hypothesis was tested using the bootstrap method. The initial study model consisted of reflective measurement items which were manifest variables or indicators, three latent variables including one independent, one dependent variable and one mediating variable constituting the 4 relationships between them based on the proposed study

### 4. RESULTS AND DISCUSSIONS

The relationship model in PLS can be assumed that the latent variables and indicators or manifest variables are at the zero means scale and the unit variance (standardized value) so that the location parameters (constants) can be omitted in the model without affecting the generalization value. Parametric techniques for testing the significance of parameters are not needed because PLS does not produce a certain distribution for parameter estimation (Chin, 2010).

Research with SEM is not only a statistical procedure but also as a process which involves several stages: (1) conceptualizing the model (2) parameter identification (3) model specification (4) model estimation (5) model modification and (6) parameter evaluation (Hameed, Basheer, Iqbal, Anwar, & Ahmad, 2018); (Hancock & Mueller, 2007). The first stage of any SEM analysis should be for the researcher to conceptualize the model, this requires showing which hypothesized relationship exists between the observed and latent variables.

This validity test is intended to determine the extent to which the items of the questionnaire that are arranged can represent the variable being measured. A model is declared valid if it has a loading factor above 0.5, or in other words a loading factor lower than 0.5 has a low convergent validity, so that a loading factor lower than 0.5 must be dropped from the model. The final result of the validity test (figure 2)



**Figure 2. Measurement Model**

SEM applications, operationalized with the form of a measurable variable path analysis model, which hypothesized a structural or direct causal relationship between variables (Hancock & Mueller, 2007). Before Hypothesis testing, the Least Square Structural Equation Model was used to analyze the outside of the model (Table 2). A method was followed to assess the model as (Hair et al., 2011).

**Table 2. Outer Loading**

	AC	GCG	JS
AC2	<b>0,545</b>		
AC3	<b>0,612</b>		
AC4	<b>0,622</b>		
AC7	<b>0,794</b>		
GCG12		<b>0,795</b>	
GCG13		<b>0,747</b>	
GCG2		<b>0,562</b>	
JS3			<b>0,735</b>
JS4			<b>0,626</b>
JS5			<b>0,609</b>
JS7			<b>0,632</b>
JS8			<b>0,673</b>
JS9			<b>0,740</b>

Data quality test is done by looking at the resulting composite reliability value. According to (Hair et al., 2011), convergent validity is the extent to which a set of variables intersect to estimate a certain concept, the value of good composite reliability is  $\rho_c \geq 0.70$ , it can be said that the construct has high



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or reliable reliability and  $\rho > 0.6$  is said to be quite reliable (Ghozali & Latan, 2015), Average Variance Extracted (AVE)  $> 0.50$ .

Table 3 contains the values for composite reliability and Cronbach Alpha. The Cronbach alpha range comes out to be 0.492-0.759, and the range the reliability of the composite is 0.741-0.830, which is higher than the recommended range (Fornell & Larcker, 1981), which is 0.7. The results proclaim and confirm convergent validity. Furthermore, AVE is also obtained for the outer model to assess convergent validity. This describes the extracted average variant for a set of items compared to a common variant, which involves measurement error. Besides, it was decisive the variance covered by the indicator is compared with the variance defined by the measurement error. Thus according to several studies if the average value of the extracted value reaches that level 0.5, then it indicates a sufficient convergence of this group of items to determine the required constructs. The AVE range for this study came out as 0.422-0.502, indicating good validity of the measurement. According to (Fornell & Larcker, 1981), although some latent constructs or variables have AVE values of 0.3 - 0.4, these latent variables are still considered to meet convergent validity because they have a CR value  $> 0.6$ .

**Table 3. Reliability**

Variabel	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
AC	0,564	0,595	0,741	0,422
CGC	0,492	0,514	0,748	0,502
JS	0,759	0,768	0,830	0,450

Discriminant Validity from the reflexive measurement model can be calculated based on the cross loading value of the manifest variable against each of the latent variables. If the correlation between the latent variable and each of its indicators (the manifest variable) is greater than the correlation with other latent variables, then the latent variable can be said to predict its indicator better than the other latent variables. (table 4)

**Table 4. Discriminant Validity**

	AC	GCG	JS
AC	0,650		
CGC	0,366	0,709	
JS	0,407	0,436	0,671

Measurement of construct validity for the outer model assumes that the results of hypothesis testing must be valid and highly reliable. After the suitability test for the external model, the hypothesis is tested to assess the nature of the relationship between variables. Hypothesis testing for this study was carried out through the PLS Algorithm, Table 5).

**Table 5. Direct relations**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
AC --> JS	0,286	0,298	0,089	3,202	0,001
GCG --> AC	0,366	0,386	0,072	5,098	0,000
GCG --> JS	0,436	0,453	0,061	7,140	0,000



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The mediation effect is shown in table 6.

**Table 6. mediation effect**

Jalur	Original Sample (O)	Sample Mean(M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
GCG -->AC --> JS	0,105	0,114	0,040	2,627	0,009

The R-squared (R<sup>2</sup>) test is a way to measure the level of Goodness of Fit (GOF) of a structural model. The value of R-squared (R<sup>2</sup>) is used to assess how much influence a certain independent latent variable has on the dependent latent variable.(Table 6). The value of R Square is the coefficient of determination in the endogenous construct. According (Chin, 2010), the R square values are 0.67 (strong), 0.33 (moderate) and 0.19 (weak)

**Table 7. R-Square**

Variabel	Nilai R-square
AC	0,134
JS	0,261

Table 7 above shows that the Affective Commitment variable has an R-square value of 0.134, meaning that the Affective Commitment variable can be explained by the Good Corporate Governance construct of 13.4%. The Job Satisfaction variable has an R-square value of 0.261, meaning that the Job Satisfaction variable can be explained by the Good Corporate Governance construct and the Affective Commitment construct by 26.1%. The higher the R-square value, the greater the ability of the independent variable to explain the dependent variable so that the structural equation will be better.

The results of this study indicate that affective commitment has an effect. Affective commitment as a mediating variable is able to influence the GCG variable on the job satisfaction variable. In this study, it was found that the affective commitment of employees had not had a significant effect, this can be seen from the T-statistic value of 2.672 on the effect of mediation, while without mediation the affective commitment variable where the t-statistic value was higher,7.140.

## 5. CONCLUSION

The implementation of good corporate governance carried out by employees of drinking water companies in South Sumatra (3 regions; Palembang, Ogan Ilir, Banyuasin) which is driven by affective commitment has not been able to provide job satisfaction. Therefore, affective commitment needs to get the attention of all stakeholders so that affective commitment can have a big influence in implementing good corporate governance. The findings of the study have provided support to the theoretical foundation and the proposed hypothesis of the current study. Affective commitment is a significant factor that determines the level of dedication and loyalty to the company. Emotionally committed employees tend to work alone to achieve company goals and maintain relationships with the company (Mowday et al., 2013). Employees with high affective commitment will show better performance than employees with low affective commitment because they have an emotional attachment that creates a sense of belonging to the organization and will always strive better for organizational progress (Shore & Wayne, 1993)

## LIMITATION AND STUDY FORWARD

This study has limitations in taking research respondents because it only represents 3 regions, namely Palembang, Ogan Ilir and Banyuasin. For this reason, further research is needed by taking respondents



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who represent all regional public companies in the drinking water sector. In further research, other variables can also be included such as continuous commitment and normative commitment which are also dimensions of organizational commitment apart from affective commitment (Hoque et al., 2017)

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## EFFECT OF INDIVIDUAL CHARACTERISTICS, JOB CHARACTERISTICS, ORGANIZATIONAL CHARACTERISTICS AND ORGANIZATIONAL CLIMATE ON MANAGEMENT SATISFACTION MEDIATED BY WORK MOTIVATION

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### Abstract

The purpose of this study was to determine the effect caused by individual characteristics, job characteristics, organizational characteristics and organizational climate on the job satisfaction of the management mediated by work motivation (Case Study at the Matahari Dept Store Medan branch). The analytical method used in this study is this study discusses the independent variables on the dependent variable. The independent variables in this study are individual characteristics, job characteristics, organizational characteristics and organizational climate, and the dependent variable in this study is work motivation and job satisfaction. This research was conducted at Matahari Dept Store Medan branch. The results of this study prove that the variables of individual characteristics, job characteristics.

**Keywords:** *individual characteristics, job characteristics, organizational characteristics, organizational climate, work motivation, job satisfaction*

### 1. INTRODUCTION

In the global era that exposes organizations to very tight business competition, where performance appraisals must be more aggregate or comprehensive, covering every member of the organization. The classic view that assumes that the assessment is only appropriate for subordinates should be abandoned and the assessment process must be carried out as something that provides performance (outcomes) for the organization.

The development of science and technology of an organization or company cannot avoid competition with other companies. This condition requires an organization or company to always carry out various innovations in order to anticipate increasingly fierce competition.

Human resources are the most important asset of the company because of their role as the subject of implementing policies and company operational activities. In addition to human resources as one of the elements that determine the success of an organization, on the other hand, they are also beings who have certain thoughts, feelings, needs and expectations. This really requires special attention because these factors will later affect achievement, dedication and loyalty as well as love for work and organization (Hasibuan, 2009: 19).

According to Simamora (2009: 66) training is an activity to improve a person's general knowledge, including increasing mastery of theory and skills in deciding on issues related to achieving goals. It can be assumed that training and development are very important for the workforce to work more masterfully and better at the job that is currently held or will be held in the future. Training needs should be visible at the time of employee performance evaluation, methods to meet them have been included in the development plan



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## A. Identification of problems

Based on the background of the problems stated above, various problems can be identified as follows:

- a. Employee loyalty tends to be low so that employees' sense of responsibility towards the company is still low ..
- b. Differences in the characteristics of each employee which can sometimes interfere with the course of work.

## B. Formulation of the problem

Based on the limitations of the problems above, the problems in this study are formulated as follows:

1. Do individual characteristics affect partially on management job satisfaction mediated by work motivation.
2. Do job characteristics affect partially on management job satisfaction mediated by work motivation.
3. Do organizational characteristics affect partially on management job satisfaction mediated by work motivation.
4. Does organizational climate affect partially on management job satisfaction mediated by work motivation.
5. Are individual characteristics, job characteristics, organizational characteristics and organizational climate influence simultaneously on management job satisfaction mediated by work motivation?
6. How much do individual characteristics affect partially on management job satisfaction mediated by work motivation.
7. How much do the job characteristics affect partially on management job satisfaction mediated by work motivation.
8. How much do organizational characteristics affect partially on management job satisfaction mediated by work motivation.
9. How much does the organizational climate affect partially on management job satisfaction mediated by work motivation.

## C. Research purposes

The purpose of this research is to find out:

- a. The influence of individual characteristics, job characteristics, organizational characteristics and organizational climate on job satisfaction of the board.
- b. The influence of individual characteristics, job characteristics and organizational characteristics on the work motivation of the board.

The influence of individual characteristics, job characteristics and organizational characteristics on job satisfaction is mediated by the work motivation of the board

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Individual Characteristics

According to Thoha (2010: 53), it is related to individual characteristics, that individuals bring into the organizational order, abilities, personal beliefs, expectations of needs and past experiences. These are all characteristics possessed by individuals and these characteristics will enter a new environment, namely the organization. The most important resource in an organization is human resources, every human being has individual characteristics that vary from one another. The future of an individual in the organization does not depend on performance alone. Managers also use judgmental subjective measures. What is perceived by the appraiser as good or bad employee character / behavior will affect the assessment.



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Besides that, according to Gibson. JL which is translated into language by Nunuk Ardiani (2007) that what is meant by individual characteristics are abilities and skills, background and demographics. The classification of demographics is gender and race.

Based on some of the opinions above, the individual characteristics in this study are seen from their abilities, biographical characteristics, learning, attitudes, personality, perceptions, and values.

### **Job Characteristics**

The definition of job characteristics according to MacShane et al (2008) is the characteristics of the work environment which includes the physical and social environment. The physical environment includes the working atmosphere in terms of physical factors, such as temperature conditions, weather, building construction and workplace temperatures. While the social environment includes the socio-culture in the work environment, the size or size of the workload, the compensation received, the work relationship with the profession, and the quality of work life. Then the job characteristics according to Purwaningsih (2008) are different characteristics between one type of work and another that is specific and constitutes the core of work which contains the characteristics that exist in all jobs and is felt by workers so that it affects work behavior towards their work.

- a. Skill variety (skill variety)
- b. Identity task
- c. The meaning of the task (task significance)
- d. Autonomy (autonomy)
- e. Feedback (feedback)

These five work characteristics will affect three important psychological conditions for employees, namely experiencing the meaning of work, taking responsibility for work results, and knowledge of work results. And of these three psychological conditions will affect work motivation internally, performance quality, job satisfaction, absence and employee turnover (Robbins, 2008).

### **Organizational Characteristics**

Organization can be said as a tool to achieve goals, therefore the organization can be said to be a forum for activities of the people who work together in an effort to achieve goals. In this activity, people must have clear duties, authorities and responsibilities, relationships and work procedures. This definition is called a "static" organization, because it is only seen from its structure. In addition, there is an organizational definition that is "dynamic." This definition of organization is seen from the point of view of its dynamics, activities or actions than the relationship arrangements that occur within the organization, both formal and informal.

### **Organizational Climate**

Climate or Climate comes from the Greek word incline, this word not only gives a limited meaning to physical things such as temperature or pressure, but also has a psychological meaning that the people in the organization describe the internal environment of the organization.

The term organizational climate was first used by Kurt Lewin in the 1930s, who used the term psychological climate (psychological climate). Then the term organizational climate was used by R. Tagiuri and G. Litwin. Tiaguri suggests a number of terms to describe behavior in relation to the setting or setting where the behavior occurs: environment, milieu, culture, atmosphere, situation, field patterns. setting), pattern of behavior (behavior setting) and conditions (conditions)

The definition of organizational climate put forward by several experts. Western experts define climate as a physical element, where climate as an attribution of the organization or as an attribution of the individual's own perceptions. According to Lussier (2007: 486), organizational climate is the employee's perception of the quality of the organization's internal environment which is relatively perceived by members of the organization which will then influence their subsequent behavior. Then suggested by Simamora (2009: 81) that organizational climate is the internal environment or organizational psychology. Organizational climate affects HR practices and policies accepted by



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organizational members. Please note that every organization will have a different organizational climate. Diversity of jobs designed within the organization,

Meanwhile, according to Stinger (2002: 122) defines climate as "... a collection and pattern of environmental determinants of aroused motivation", organizational climate is a collection and environmental patterns that determine motivation.

### **Job Satisfaction**

Every person who works expects to get satisfaction from his place of work. Basically, job satisfaction is an individual thing because each individual will have different levels of satisfaction according to the values that apply in each individual. The more aspects of work that are in accordance with the wishes of the individual, the higher the level of perceived satisfaction.

### **Work Motivation**

Motivation is a psychological condition resulting from the interaction of employee needs and external factors that affect an employee's behavior. (Danim 2007: 25). Motivation is a mental state and human mental attitude that provides energy, encourages activities and directs behavior towards achieving satisfying needs. (Berelson and Stainer 2009: 67).

Motivation is a living phenomenon that has many shades and varieties. In general, motivation can be classified into four types which give color to human activity. Danim (2017: 17), states that the motivation given is classified into four parts:

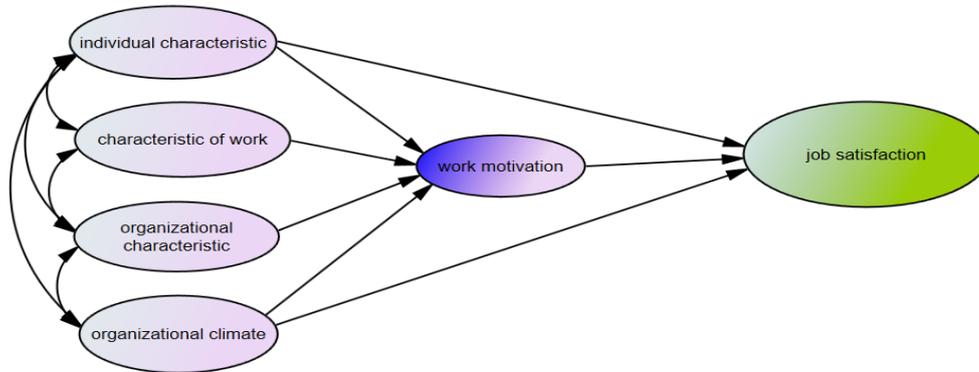
- a. Positive Motivation  
Positive motivation is the process of giving motivation or an effort to generate motives, where it is directed at trying to influence others so that they work well and enthusiastically by providing certain benefits to them.
- b. Negative Motivation  
Negative motivation is often said to be motivation that comes from fear. Excessive negative motivation will make the organization unable to achieve its goals.

### **Framework**

According to Thoha (2010: 53), it is related to individual characteristics, that individuals bring into the organizational order, abilities, personal beliefs, expectations of needs and past experiences. These are all characteristics possessed by individuals and these characteristics will enter a new environment, namely the organization.

Meanwhile, Robbins (2008) suggests several individual characteristics including: gender, marital status, age, education, family income, and tenure. Meanwhile, according to Sopiah (2008) that individual characteristics are biographical traits, personality, perceptions and attitudes.

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## Hypothesis

1. H1: Individual characteristics partially have a positive effect on work motivation
2. H2: Job characteristics partially have a positive effect on work motivation
3. H3: organizational characteristics partially have a positive effect on work motivation
4. H4: Organizational climate partially has a positive effect on work motivation
5. H5: Individual characteristics partially have a positive effect on job satisfaction
6. H6: Job characteristics partially have a positive effect on job satisfaction
7. H7: Organizational characteristics partially have a positive effect on job satisfaction
8. H8: Partially organizational climate has a positive effect on job satisfaction
9. Individual characteristics, job characteristics, organizational characteristics and organizational climate simultaneously influence job motivation and job satisfaction

## 3. RESEARCH METHODOLOGY

### Research Approach

The approach of this research is associative research (casual), which is research that has a positive relationship between one another, this study discusses the influence variables of individual characteristics, job characteristics, organizational characteristics and organizational climate on job satisfaction of managers mediated by work motivation at Matahari Dept. Medan Branch Store.

### Population and Sample

According to Sugiyono (2010: 57) "Population is a generalization area consisting of subjects or objects that have certain quantities and characteristics that are applied by researchers to study and then draw conclusions. The population in this study were all employees of Matahari Dept Store Medan Branch).

The sample is a number of members or parts of the population that represent the population, so by studying the sample and understanding its characteristics it is possible to generalize these characteristics from all members of the population. The sample was taken by using the total sampling questionnaire method in which 30 employees were taken as the sample.

### Types and Sources of Data

This research is a type of primary data research, namely research data obtained or collected directly from the original source (employees of the Matahari Dept Store Branch Medan) in the form of.

While the data sources in this study were obtained from answers to questionnaires distributed to respondents from Matahari Dept Store Medan Branch.



## Operational Definition of Variables

### Research variable

Basically, research variables are anything in the form determined by the researcher to study so that information about it is obtained, then conclusions are drawn. Research variables are also defined as an attribute or nature or value of people, objects or activities that have certain variations that are determined by the researcher to study and draw conclusions (Sugiyono, 2018).

## Operational Definition of Variables

This study uses two variables, namely the dependent variable and the independent variable.

The operational definitions for each variable are as follows:

Dependent Variable : According to Sugiyono (2010: 4) the dependent variable or in Indonesian, often referred to as the dependent variable, is a variable that is influenced or becomes a result, because of the independent variable. The dependent variable in this study is work motivation (Y1) and job satisfaction of the management (Y2).

Independent Variable : This study uses two variables, namely the dependent variable and the independent variable.

## Data collection technique

Data collection techniques used to obtain the data needed in writing the final project are:

### a. Interview Method

The interview is one of the most important parts of any survey. Wawancara is the process of obtaining information for research purposes by means of face-to-face question and answer between the interviewer or the interviewer and the respondent using a tool called an interview guide. In this study, direct interviews with employees were carried out. Matahari Dept Store, Medan Branch

### b. Literature review

Literature study is a method of collecting data from literature books. The literature study method is a data collection method that utilizes books or literature as reference material to obtain conclusions from the opinions of experts by obtaining these conclusions as a separate method for formulating a new opinion which further emphasizes citing to obtain descriptions.

## A. Data analysis technique

To determine the effect of individual characteristics, job characteristics and organizational characteristics on management job satisfaction mediated by work motivation, the equation form two-stage regression where the variable Y1 is the variable X5:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Information:

Y = Job Satisfaction

X1 = Individual characteristics

X2 = Job characteristics

X3 = Organizational characteristics

X4 = organizational climate

X5 = work motivation

$\alpha$  = Constant

$\beta_1 \beta_2 \beta_3 \beta_4 \beta_5$  = The value of the regression coefficient between the independent variable X on the dependent variable Y, if the independent variable X is considered constant

$\varepsilon$  = error term namely other factors that affect the dependent variable Y

Data analysis in this study was divided into three stages. First, testing data quality. second, perform a classic assumption test. third, testing the hypothesis.



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## Data Quality Test

### a. Reliability Test

Reliability test is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire which is an indicator of the variables. A questionnaire is said to be reliable or reliable if someone's answer to a statement is consistent or stable over time. Measurement of reliability can be done by means of One Short or measurement only once: here the recognition is only once and then the results are compared with other statements or to measure the correlation between the answers to questions. SPSS is a facility to measure reliability with the Cronbach Alpha ( $\alpha$ ) statistical test. A construct or variable is said to be realistic if it gives a Cronbach Alpha value  $> 0.60$ .

### b. Validity test

The validity test is used to measure whether a questionnaire is valid or not. A questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. Validity testing is done by performing a bilivariate correlation between each indicator score and the total construct score. The results of the bilivariate correlation analysis by looking at the Pearson Correlation output (Ghozali, 2005).

## 2. Classic Assumption Test

Classical assumptions are conditions that must be met in a linear regression model in order for the model to be valid. Before regressing, there are conditions that must be passed, namely performing a classic assumption test. The regression model must be free from classical assumptions, namely, normality test, heteroscedasticity and multicollinearity.

### a. Normality test

Normality test is used to test whether in a regression model the dependent variable, the independent variable or both has a normal distribution or not. If the residual data distribution is normal, then the line describing the real data will follow the diagonal line. Basic decision making:

- 1) If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, the regression model fulfills the assumption of normality.
- 2) If the data spreads far from the diagonal and or does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution pattern, then the regression model does not meet the normality assumption.

In the Kolmogorov Smirnov test, if the significance is  $> 5\%$ , it means that the data is normally distributed. Conversely, if the significance  $< 5\%$ , it means the data is not normally distributed.

### b. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. Heteroscedasticity symptoms in this study were detected using a scatterplot chart. Detection of the presence or absence of heteroscedasticity can be done by looking at the presence or absence of a certain pattern on the scatterplot graph between SRESID and ZPRED where the Y-axis has been predicted, and the X-axis is the studentized residual. The basic analysis is as follows:

- 1) If there is a certain pattern, such as the dots forming a certain regular pattern, it indicates that heteroscedasticity has occurred.
- 2) If there is no clear pattern, and the dots spread above and below the zero on the Y axis, there is no heteroscedasticity.



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### c. Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between the independent variables (independent). A good regression model should not have a correlation between the independent variables. A low tolerance value is the same as a high VIF value (because  $VIF = 1 / \text{tolerance}$ ) and indicates high collinearity. The basis for decision making is if the tolerance value  $> 0.1$  or equal to the VIF value  $< 10$  means that there is no multicollinearity between the variables in the regression model.

### 3. Hypothesis testing

#### a. Determination Coefficient Test ( $R^2$ )

The coefficient of determination ( $R^2$ ) is used to measure the ability of the model to explain variations in the dependent variable. The coefficient of determination is between zero and one. If the  $R^2$  value gets smaller, then the ability of the independent variable to explain the variation in the dependent variable is low. If the value of  $R^2$  approaches one, the independent variable provides almost all the information needed to predict the variation in the dependent variable.

#### b. Simultaneous Significance Test (Test Statistic F)

Hypothesis testing simultaneously (as a whole) shows whether the independent variables as a whole or together have an influence on the dependent variable. The test criteria are as follows:

1) Comparing between F count and F table

If  $f \text{ count} < f \text{ table}$ , the independent variable simultaneously has no effect on the independent variable. If  $f \text{ count} > f \text{ table}$ , the independent variable simultaneously affects the independent variable.

2) Based on probability

If the significance probability is greater than 0.05 ( $\alpha$ ), then the independent variables simultaneously have no effect on financial performance, if it is smaller than 0.05, the independent variables simultaneously affect the job satisfaction of the management.

#### c. Significance Test of Individual Parameters (t Statistical Test)

Individual parameter testing is intended to see whether individual variables have an influence on the dependent variable, assuming the other independent variables are constant. The test criteria are as follows:

1) Comparing between t count and t table

If  $t \text{ count} < t \text{ table}$ , the independent variable individually has no effect on the dependent variable. If  $t \text{ count} > t \text{ table}$ , the independent variable individually affects the dependent variable.

2) Based on the significance probability smaller than 0.05 ( $\alpha$ ), the independent variables individually have an effect on the dependent variable.

## 4. RESULTS AND DISCUSSIONS

### A. Research result

#### 1. Description of Respondent Characteristics

In this study, primary data were collected which were taken from 30 respondents to determine their responses to the influence of individual characteristics, job characteristics, organizational characteristics and organizational climate on job satisfaction of managers mediated by work motivation. The characteristics of the respondents described below reflect how the respondents studied included gender, age and last education.



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**Table 4.1: Sample Characteristics**

No.	Gender	Frequency	Percentage
1	Male	12	40%
2	Woman	18	60%
amount		30	100%

Based on table 4.1, it is known that the largest number of respondents are women, namely 18 people or 60% and men as many as 12 people or 40%.

**Table 4.2: characteristics of respondents by age.**

N0	Age	Frequency	Percentage
1	<20	6	20%
2	20-25	11	36.6%
3	26 - 30	8	26.7%
4	> 30	5	16.7%
amount		30	100.00%

Based on table 4.2, it is known that the age of the respondents in the study were 6 people <20 years old or 20 %, 20-25 years old as many as 11 people or 36.6%, 26-30 years old as many as 8 people or 26.7% and age> 30 years as many as 5 people or 16.7%.

**Table 4.3 Characteristics of Respondents Based on Length of Work**

N0	Age	Frequency	Percentage
1	1 year	5	16.7%
2	23 years	11	36.7%
3	4 - 5 years	10	33.3%
4	> 6 years	4	13.3%
amount		30	100.00

Based on table 4.3, it is known that the level of length of work of the respondents in the study was 1 year as many as 5 people or 16.7%, 2 - 3 years as many as 11 people or 36.7%, 4 - 5 years as many as 10 people or 33.3% and > 6 years as many as 4 people or 13.3%.

## 2. Individual Characteristics (X1)

Table 4.4 presents the respondents' answers to the questionnaire

**Table 4.4 Individual Characteristics Variables (X1)**

	Item Statistics		
	Mean	Std. Deviation	N
X11	3,5667	.50401	30
X12	3.6000	.89443	30
X13	3.7667	.72793	30
X14	3.7667	1.07265	30
X15	3,7333	.69149	30
X16	4.1000	.75886	30

## 3. Job Characteristics (X2)

Table 4.5 presents the respondents' answers to the questionnaire



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**Table 4.5 Variable Job Characteristics (X2)**

	Item Statistics		
	Mean	Std. Deviation	N
X21	3.9667	.71840	30
X22	3.7667	.72793	30
X23	4.0333	.66868	30
X24	4.0000	.69481	30
X25	3.8333	.46113	30
X26	3.9000	.40258	30
X27	4.2667	.90719	30
X28	3.6667	.75810	30

## 4. Organizational Characteristics (X3)

Table 4.6 presents the respondents' answers to the questionnaire

**Table 4.6 Organizational Characteristics Variables (X3)**

	Item Statistics		
	Mean	Std. Deviation	N
X31	3.4667	.86037	30
X32	4.5000	.57235	30
X33	4.0000	.87099	30
X34	3.8667	.68145	30
X35	4.0000	.69481	30
X36	3.9333	.44978	30

## 5. Organizational Climate (X4)

Table 4.7 presents the respondents' answers to the questionnaire

**Table 4.7 Organizational Climate Variables (X4)**

	Item Statistics		
	Mean	Std. Deviation	N
X41	3.5667	.50401	30
X42	4.0667	.58329	30
X43	4.0333	.80872	30
X44	3.8667	.57135	30
X45	4.1000	.92289	30
X46	3.4000	.72397	30

## 6. Work motivation (X5)

Table 4.8 presents the respondents' answers to the questionnaire



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**Table 4.8 Work Motivation Variables (X5)**

	Item Statistics		
	Mean	Std. Deviation	N
X51	4.1333	.54575	30
X52	4.2333	.62606	30
X53	3.7667	.62606	30
X54	3.8000	.71438	30
X55	4.2667	.63968	30
X56	3.9333	.58329	30

## 7. Job Satisfaction (Y)

Table 4.9 presents the respondents' answers to the questionnaire

**Table 4.9 Job Satisfaction Variable (Y)**

	Item Statistics		
	Mean	Std. Deviation	N
Y11	4.2667	.58329	30
Y12	3.8667	.50742	30
Y13	4.0333	.88992	30
Y14	3.6667	.75810	30
Y15	3,8333	.87428	30
Y16	4.1000	.92289	30

## 8. Testing Instrument Data

The influence factor of individual characteristics (X1), job characteristics (X2), organizational characteristics (X3), organizational climate (X4), work motivation (X5). The independent variable will be seen how much influence it has on job satisfaction (Y) as the dependent variable.

Before being analyzed and evaluated, the data is tested with validity and reliability tests as follows:

### a. Validity test

The validity test is a measure that shows the levels of validity or validity of an instrument. An instrument is said to be valid if it is able to measure what it wants. To determine whether or not the questionnaire items were valid, a ratio of the corrected item total correlation was greater than ( $>$ )  $r$  table or the value of the corrected item total correlation was greater than 0.30, so the question items were considered valid. While the validity of the data is based on the number of  $n$  (respondents) in the degrees of freedom  $r$  table ( $df = n - k$ ) must be less than 0.30.

**Table 4.10 Item-total statistics (X1)**

	Item-Total Statistics				Cronbach's Alpha if Item Deleted
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	
X11	18.9667	10,930	.133	.078	.846
X12	18,9333	6,409	.780	.761	.667
X13	18.7667	8,323	.449	.421	.761



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X14	18.7667	5,909	.706	.691	.692
X15	18,8000	7,683	.673	.566	.711
X16	18,4333	7,495	.642	.543	.714

From the table 4.10 above, the results of the SPSS output show that the validity value is in the Corrected Item-Total Correlation column, which means the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 6 (six) questions on variable X1 (individual characteristics) can be declared valid (valid) because all coefficient values are greater than 0.30.

**Table 4.11 Item-total statistics (X2)**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X21	31.0333	11,482	.525	.421	.796
X22	31.2333	11,909	.420	.591	.810
X23	30.9667	10,861	.736	.699	.769
X24	31.0000	11,793	.477	.580	.802
X25	31.1667	13,523	.241	.428	.823
X26	31.1000	12,024	.847	.866	.778
X27	30,7333	9,375	.784	.878	.755
X28	31.3333	10,713	.658	.542	.777

From the table 4.11 above, the SPSS output results show that the validity value is in the Corrected Item-Total Correlation column, which means that the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 8 (eight) questions on variable X2 (job characteristics) can be declared valid (valid) because all coefficient values are greater than 0.30.

**Table 4.12 Item-total statistics (X3)**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X31	20,3000	5,597	.640	.552	.751
X32	19.2667	7,582	.328	.415	.813
X33	19.7667	6,047	.499	.408	.792
X34	19,9000	6,231	.661	.639	.746
X35	19.7667	6,323	.612	.573	.757
X36	19,8333	6,971	.745	.728	.753

From table 4:12 above, the results of the SPSS output show that the validity value is in the Corrected Item-Total Correlation column, which means that the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 6 (six) questions on variable X3 (organizational characteristics) can be declared valid (valid) because all coefficient values are greater than 0.30.



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**Table 4.13 Item-total statistics (X4)**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
X41	23.1667	8,764	.173	.234	.763
X42	23,2000	6,441	.635	.794	.664
X43	23.3667	7,068	.760	.818	.656
X44	23.1333	5,913	.655	.618	.656
X45	23,8333	7,523	.417	.358	.721
X46	23.0333	6,861	.567	.628	.684

From table 4.13 above, the SPSS output results show that the validity value is in the Corrected Item-Total Correlation column, which means the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 6 (six) questions on variable X4 (organizational climate) can be declared valid (valid) because all coefficient values are greater than 0.30.

**Table 4.14 Item-total statistics (Y1)**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Y11	20.0000	3,586	.158	.309	.538
Y12	19,9000	2,507	.303	.448	.367
Y13	20,367	2,447	.337	.559	.345
Y14	20.3333	1,954	.518	.626	.193
Y15	19.8667	2,602	.236	.548	.407
Y16	20,2000	3,062	.047	.481	.506

From the table 4.14 above, the results of the SPSS output show that the validity value is in the Corrected Item-Total Correlation column, which means the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 6 (six) questions on the Y1 variable (work motivation) can be declared valid (valid) because all coefficient values are greater than 0.30.

**Table 4.15 Item-total statistics (Y2)**

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Y11	23.0667	5,306	.363	.250	.410
Y12	23.4667	4,395	.547	.675	.223
Y13	23,3000	3,390	.499	.745	.123
Y14	23.6667	4,299	.300	.498	.290
Y15	23,5000	4,534	.139	.405	.388
Y16	23.2333	5,909	-.211	.174	.594

From the table 4.15 above, the results of the SPSS output show that the validity value is in the Corrected Item-Total Correlation column, which means the correlation value between the score of each item and the total score on the tabulation of the respondent's answer. The results of the validity test of 6 (six) question items on variable Y (job satisfaction) can be declared valid (valid) because all coefficient values are greater than 0.30.

## b. Reliability Testing

Reliability is the degree of accuracy, precision or accuracy shown by the measurement instrument. A measurement result can be trusted if in several times the measurement of the same subject group, the measurement results are obtained that are relatively the same. Questionnaire items are said to be reliable or reliable if someone's answer to the questionnaire is consistent. In this study, to determine whether the questionnaire was reliable or not, using Cronbach's alpha. The questionnaire is said to be reliable if Cronbach's alpha is  $> 0.60$  and not reliable if it is equal to or below  $0.60$  (Rusiadi, 2013).

The reliability of the questionnaire questions that the author has submitted to the respondents in this study will be seen in the Reliability Statistics table which is presented in the table below:

**Table 4.16 Reliability Statistics**

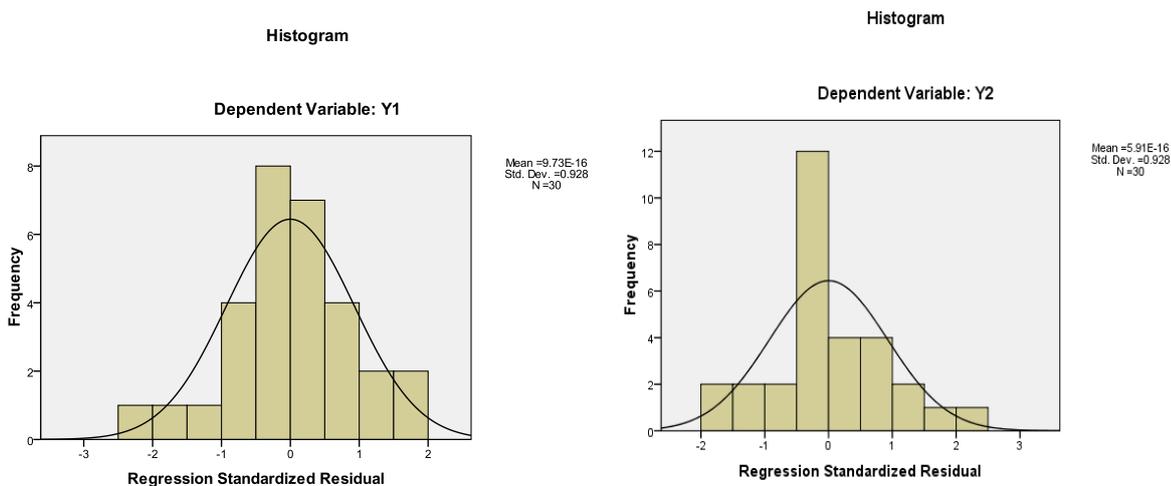
Variable	Cronbach's Alpha	N of Items
X1	.777	6
X2	.816	8
X3	.801	6
X4	.742	6
Y1	.765	6
Y2	.809	6

From the table 4.16 above, the results of the SPSS output show that the Cronbach's Alpha value of variable X1 (individual characteristics) is  $0.777 > 0.60$ , variable X2 (job characteristics) is  $0.816 > 0.60$ , variable X3 (organizational characteristics) is  $0.801 > 0.60$ , variable X4 (organizational climate) is  $0.742 > 0.60$ , variable Y1 (work motivation) is  $0.765 > 0.60$  and variable Y2 (job satisfaction) is  $0.809 > 0.60$  so it can be concluded that the questions that have been presented to respondents on each variable is reliable or said reliable.

## 7. Classic Assumption Testing

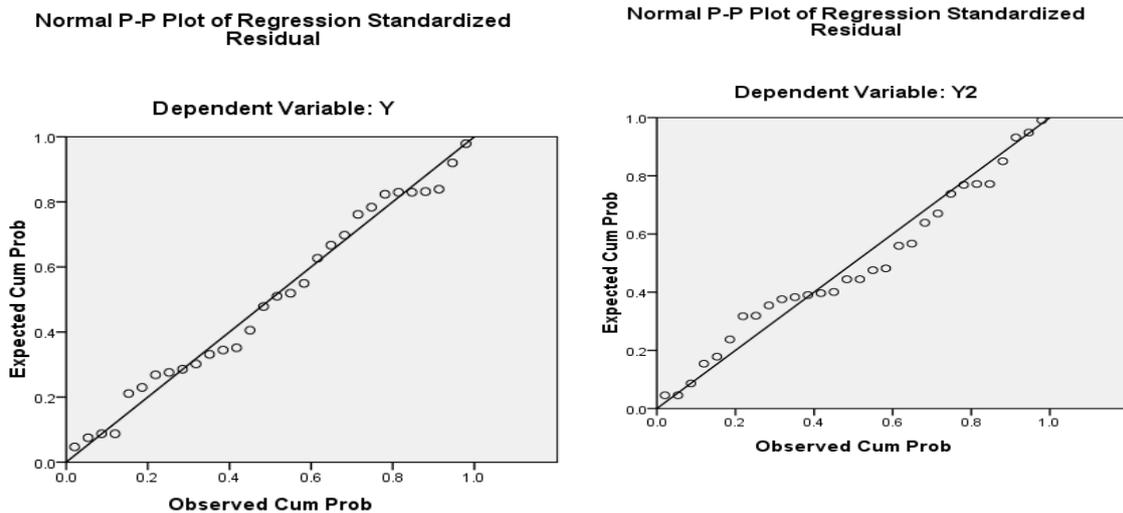
### a. Data Normality Test

The normality test aims to test whether in a regression, confounding variables or residuals are normally distributed or not. Regression models have either normal or near-normal data distribution.



**Figure 4.1 Histogram for Normality Test**

Based on Figure 4.1 above, the results of the data normality test show that the data is normally distributed, where the histogram image has a line forming a bell and has a convexity balanced in the middle.



**Figure 4.2 PP Plot Normality Test**

Based on Figure 4.2 above, then for the results of data normality testing using the PP Plot image, the data points for the job satisfaction variable that spread around the diagonal line are seen so that the data is normally distributed.

From the two pictures above, it can be concluded that after the data normality test was carried out, the data for the variable individual characteristics, job characteristics, organizational characteristics and organizational climate were normally distributed.

### b. Multicollinearity Test

The multicollinearity test aims to test whether the regression model found a correlation between independent variables. This test is done by looking at the tolerance value and variance inflation factor (VIF) from the results of the analysis using SPSS. If the tolerance value is  $> 0.10$  or  $VIF < 10$ , it is concluded that there is no multicollinearity. The multicollinearity test of the questionnaire results that have been distributed to respondents can be seen in the following table.

**Table 4.17 Multicollinearity Test (Y1)**

Model	Coefficients <sup>a</sup>		Standardized Coefficients Beta	t	sig	tolerance	VIF
	Unstandardized Coefficients B	Std. Error					
1 (Constant)	24,399	2,997		8,141	.000	.863	1,464
Individual Characteristics	-.026	.181	-.045	-.142	.888	.863	1,464
Job characteristics	.155	.241	.312	.644	.526	.863	1,464
Organizational characteristics	-.557	.375	-.891	-	.150	.863	1,464
Organizational climate	.367	.237	.603	1,547	.134	.863	1,464

a. Dependent Variable: Work motivation



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Based on Table 4.17 above, it can be seen that the Variance Inflation Factor (VIF) number is smaller than 10, including variables X1, X2, X3, X4  $1,464 < 10$  and the Tolerance value of  $0.683 > 0.10$ , so that they are free from multicollinearity.

**Table 4.18 Multicollinearity Test (Y2)**

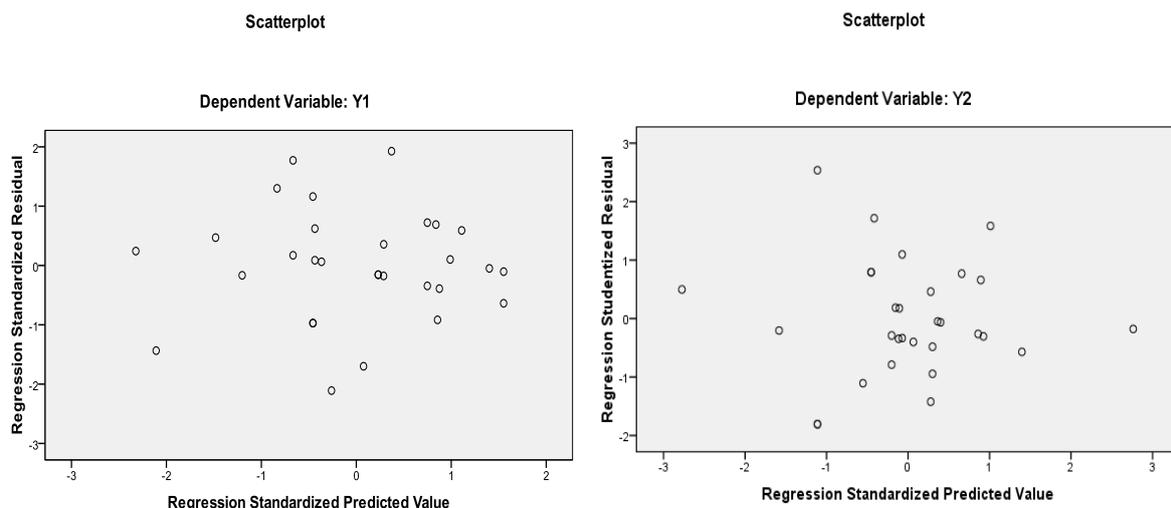
		Coefficients <sup>a</sup>		t	sig	tolerance	VIF
Model		Unstandardized Coefficients					
		B	Std. Error				
1	(Constant)	19,197	3,542	5,419	.000		1,464
	Individual Characteristics	.061	.213	.089	.287	.863	1,464
	Job characteristics	.563	.285	.940	.1975	.059	1,464
	Organizational characteristics	-.531	.443	-.705	-1,200	.241	1,464
	Organizational climate	-.079	.280	-.108	-.281	.781	1,464

a Dependent Variable: Work motivation

Based on Table 4.18 above, it can be seen that the Variance Inflation Factor (VIF) number is smaller than 10, including variables X1, X2, X3, X4, X5  $1,464 < 10$  and the Tolerance value of  $0.683 > 0.10$ , so that they are free from multicollinearity.

### c. Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. A good regression model is one that does not occur heteroscedasticity. In this study, the method used to detect heteroscedasticity symptoms was by looking at the plot graph between the predicted value of the dependent variable (ZPRED) and its residual (SRESID).



**Figure 4.3 Scatterplot Heteroscedasticity Test**



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Based on Figure 4.3 above, the scatterplot image shows that the resulting dots spread out randomly and do not form a particular pattern or trend line. The image above also shows that the data distribution is around the zero point. The results of this test indicate that the regression model is free from heteroscedasticity problems, in other words: the variables to be tested in this study are homoscedasticity.

### d. Multiple Linear regression test

Multiple linear regression aims to calculate the influence of two or more independent variables on one dependent variable. and predict the dependent variable by using two or more independent variables.

The multiple regression analysis formula is as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

**Table. 4.19 Multiple Linear Regression Coefficients (a)**

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.581	3,025		-.092	.849		
	Individual Characteristics	.620	.092	.698	4,763	.001	.683	1,464
	Job Characteristics	.700	.097	.680	6,854	.000	.683	1,464
	Organizational Characteristics	.740	.100	.711	7,432	.000	.683	1,464
	Organizational Climate	.540	0.92	.602	5,675	.001	.683	1,464

a Dependent Variable: Work motivation

Based on table 4:18, it is obtained multiple linear regression as follows:

$$Y = -0.581 + 0.620 X_1 + 0.700 X_2 + 0.740 X_3 + 0.540 X_4 + e.$$

The interpretation of the multiple linear regression equation is:

- 1) If everything in the independent variables is considered zero, the value of work motivation (Y) is -0.581.
- 2) If there is an increase in the influence of individual characteristics by 1, then work motivation (Y) will increase by 0.620.
- 3) If there is an increase in job characteristics by 1, then work motivation (Y) will increase by 0.700.
- 4) If there is an increase in the influence of organizational characteristics by 1, then work motivation (Y) will increase by 0.740.
- 5) If there is an increase in organizational climate by 1, then work motivation (Y) will increase by 0.540.



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**Table. 4.20 Multiple Linear Regression Coefficients (a)**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.681	3,542		.89	.849		
	Individual Characteristics	.661	.213	.688	4,763	.001	.683	1,464
	Job Characteristics	.563	.285	.622	6,854	.000	.683	1,464
	Organizational Characteristics	.531	.443	.698	7,432	.000	.683	1,464
	Organizational Climate	.579	.280	.602	5,675	.001	.683	1,464

a Dependent Variable: job satisfaction

Based on table 4.20, it is obtained multiple linear regression as follows:

$$Y = 0.681 + 0.661 X_1 + 0.563 X_2 + 0.531 X_3 + 0.579 X_4 + e.$$

The interpretation of the multiple linear regression equation is:

- 1) If everything in the independent variables is considered zero, the job satisfaction value (Y) is 0.681.
- 2) If there is an increase in the influence of individual characteristics by 1, then job satisfaction (Y) will increase by 0.661.
- 3) If there is an increase in job characteristics by 1, then job satisfaction (Y) will increase by 0.563.
- 4) If there is an increase in the influence of organizational characteristics by 1, then job satisfaction (Y) will increase by 0.531.
- 5) If there is an increase in organizational climate by 1, then job satisfaction (Y) will increase by 0.579.

## 8. Test of Conformity (Test Goodness Of Fit)

### a. Simultaneous Significance Test (Test F)

The F test (simultaneous test) was conducted to see the effect of the independent variables on the dependent variable simultaneously. The method used is to look at the level of significance (= 0.05). If the significance value is less than 0.05, then H<sub>0</sub> is rejected and H<sub>a</sub> is accepted.

**Table 4.21 Simultaneous Test**

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	88,599	4	22,149	62.39	.025a
	Residual	88,768	25	3,550		
	Total	177,367	29			

a. Predictors: (Constant), X<sub>4</sub>.X<sub>1</sub>.X<sub>2</sub>.X<sub>3</sub>  
 b. Dependent Variable: Y

Based on the table 4.21 above, it can be seen that Fcount is 62.39 while Ftable is 3.35 which can be seen at  $\alpha = 0.05$ . The significant probability is much smaller than 0.05, namely  $0.025 < 0.05$ , so the regression model can be said that in this study individual characteristics, job characteristics, organizational characteristics, organizational climate have a positive and significant effect on work



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motivation. So the previous hypothesis is Accept  $H_a$  (reject  $H_0$ ) or the hypothesis is accepted.

**Table 4.22 Simultaneous Test**

Model		ANOVA <sup>b</sup>				
		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	98,421	4	24,605	50.11	.031 <sup>a</sup>
	Residual	122,768	25	4,910		
	Total	221,189	29			

a. Predictors: (Constant), X4.X1.X2.X3  
 b. Dependent Variable: Y

Based on the table 4.22 above, it can be seen that Fcount is 50.11 while Ftable is 3.35 which can be seen at  $\alpha = 0.05$ . The significant probability is much smaller than 0.05, namely  $0.031 < 0.05$ , so the regression model can be said that in this study individual characteristics, job characteristics, organizational characteristics, organizational climate have a positive and significant effect on job satisfaction. So the previous hypothesis is Accept  $H_a$  (reject  $H_0$ ) or the hypothesis is accepted.

### b. Partial Significance Test (t test)

Partial test (t) shows how far the independent variables individually explain the variation of this test carried out using a significance level of 5%. If the significance value  $t < 0.05$ , it means that there is a significant influence between one independent variable on the dependent variable. If the significance value of  $t > 0.05$  means that there is no influence between one independent variable on the dependent variable.

**Table 4.23 Partial Test Coefficients a**

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.581	3,025		-.092	.849	
	Individual Characteristics	.620	.092	.698	4,763	.001	.683 1,464
	Job Characteristics	.700	.097	.680	6,854	.000	.683 1,464
	Organizational Characteristics	.740	.100	.711	7,432	.000	.683 1,464
	Organizational Climate	.540	0.92	.602	5,675	.001	.683 1,464

a. Dependent Variable: Work motivation



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**Table 4.24 Partial Test Coefficients a**

Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	.610	3,025		-.084	.849		
Individual Characteristics	.563	.071	.528	4,235	.001	.683	1,464
Job Characteristics	.531	.058	.480	5,978	.000	.683	1,464
Organizational Characteristics	.632	.099	.622	6,234	.001	.683	1,464
Organizational Climate	.540	.068	.498	6,022	.000	.683	1,464

a. Dependent Variable: Job Satisfaction

### c. Coefficient of Determination

Analysis of the coefficient of determination is used to determine the percentage of the variation in the influence of independent variables on the dependent variable. From processing the questionnaire data using the SPSS 17.0 software application tool for Windows, the results are as shown in the table below:

**Table 4.25 Coefficient of Determination**

Model Summary b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631a	.398	.719	1,92319

a. Predictors: (Constant), X4, X1, X2, X3  
b. Dependent Variable: Y1

Based on table 4:26 above, it can be seen that the adjusted R Square number is 0.719 which can be called the coefficient of determination, which in this case means that 71.9% of work motivation can be obtained and explained by the independent variables. While the remaining  $100\% - 71.9\% = 28.1\%$  is explained by other factors or variables outside this variable, namely: organizational commitment, organizational culture, managerial performance and others.

**Table 4.27 Coefficient of Determination**

Model Summary b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608a	.167	.631	2.21629

a. Predictors: (Constant), X4, X1, X2, X3  
b. Dependent Variable: Y2

Based on table 4:26 above, it can be seen that the adjusted R Square figure is 0.631 which can be called the coefficient of determination, which in this case means that 63.1% of job satisfaction can be obtained and explained by the independent variables. While the remaining  $100\% - 63.1\% = 36.9\%$  is explained by other factors or variables outside this variable, namely: Working conditions, ineffective communication, company management, company policies and work climate.



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### B. Discussion

Based on the results of the study, it can be seen that individual characteristics, job characteristics, organizational characteristics and organizational climate show a simultaneous positive effect on job satisfaction with a calculated f value of 31.69 with an f table of 3.35.

This means that individual characteristics have the ability to do various tasks that are given and can complete in one job, can complete the assigned task and the results are satisfactory, have a focus on the work given, have an interest in the work given so that they have an encouragement. for work. The results of this study support the research conducted by Parjono (2014) which states that individual characteristics have a positive and significant effect on employee performance

The results of the research on job characteristics owned by employees have freedom in planning work and freedom in carrying out tasks, have the skills / ways to complete tasks given by the company, job characteristics can determine the extent to which employees can plan and carry out tasks according to their level of understanding of work procedures, can anticipating the impact of work on other employees in one department and another, the ease of obtaining information about the successes that have been achieved in accordance with the wishes of the company.

Organizational characteristics can be seen from the relationship between the divisions that provide mutual counseling or advice if it is still a work problem, as motivation to support achievement and encourage a comprehensive career, have an organizational structure in accordance with the position, duties, authority and responsibility in the division of labor. .

Organizational climate is more subjective and has different effects on each individual. A positive and pleasant climate for individuals is characterized by a positive assessment and meaning of aspects or dimensions of the organizational climate, namely the quality of leadership, trust, communication, the feeling of doing useful work, responsibility, fair rewards, structure and bureaucracy, opportunity, control and direction of behavior, and employee participation (Davis and Newstrom, 2009: 24).

Based on the research results, it can also be seen that individual characteristics, job characteristics, organizational characteristics and organizational climate show a simultaneous positive effect on work motivation. Based on the results of the analysis, it is found that the variable individual characteristics, job characteristics, organizational characteristics and organizational climate have a positive influence or are directly proportional to employee work motivation, namely if the individual characteristics variables, job characteristics organizational characteristics and organizational climate have increased by one unit, the employee's work motivation will increase. assuming the other variables are constant. The results of the t test show that partially the independent variables of individual characteristics variables, Job characteristics, organizational characteristics and organizational climate have a significant influence on employee motivation, this is indicated by a significance value  $< \alpha$  (alpha), namely  $0.000 < 0.05$ , so that hypothesis one (H1) in this study is accepted. In addition, it can be seen that the variables of individual characteristics, job characteristics of organizational characteristics and organizational climate on employee work motivation variables. Based on the research conducted, it was found that the individual characteristic variables in the form of interests and attitudes were factors that had a positive and significant influence on employee motivation.

### 5. CONCLUSION

Based on the results of data analysis and discussion that has been described in the previous chapter, the following conclusions can be drawn:

1. The influence of individual characteristics partially positive on work motivation with t count of  $4.763 > t$  table 1.703 and sig 0.001  $< 0.05$ .



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2. The effect of job characteristics has a partially positive effect on work motivation with t count of 6.854 > t table 1.703 and sig 0.000 < 0.05.
3. The influence of organizational characteristics partially positive on work motivation with t count of 7.432 > t table 1.703 and sig 0.000 < 0.05.
4. The influence of organizational climate has a partially positive effect on work motivation with t count of 5.695 > t table 1.703 and sig 0.000 < 0.05.
5. The effect of individual characteristics partially positive on job satisfaction with t count of 4.235 > t table 1.703 and sig 0.001 < 0.05.
6. The effect of job characteristics has a partially positive effect on job satisfaction with t count of 5.978 > t table 1.703 and sig 0.000 < 0.05.
7. The influence of organizational characteristics partially positive on job satisfaction with t count of 6.234 > t table 1.703 and sig 0.001 < 0.05.
8. The influence of organizational climate has a positive effect partially on job satisfaction with t count of 6.022 > t table 1.703 and sig 0.000 < 0.05.
9. The influence of individual characteristics, job characteristics, organizational characteristics and organizational climate has a positive effect simultaneously on work motivation with f count of 62.59 > f table 3.35 and sig 0.025 < 0.05 and simultaneously influence job satisfaction with f count of 62.59 > f table 3.35 and sig 0.031 < 0.05.

### B. Suggestion

Based on the results of the analysis and discussion carried out, research suggestions can be submitted as follows:

1. It is hoped that these findings can also serve as an illustration for management in an effort to improve employee performance considering that organizational characteristics are already good in influencing employee performance, so it is hoped that the existing organizational characteristics can be maintained and improved.
2. It is hoped that the leadership of PT. Matahari Department Store can improve coaching, training, appraisal and employee development with reference to autonomy, job variation, job identity, task significance and job feedback, because job characteristics are still lacking in influencing employee performance, which in the end is expected with an increase in job characteristics capable of also improve employee performance.
3. For other researchers or prospective researchers to increase the number of population and samples, for example, expanding research not only in one company so that the data obtained is broader and can compare between one company and another.

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## CRAFTING STRATEGIC MANEUVERABILITY TO BOOST BUSINESS PERFORMANCE

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### Abstract

This study is an attempt to explore the concept of strategic maneuverability and its relationship with company performance since only a few studies regarding strategic maneuverability can be found in the strategic management literature. The study uses a quantitative research approach and simple random sampling to collect responses from 53 service companies in the oil and gas industry in Indonesia. The analysis employs Partial Least Square Structural Equation Model using SmartPLS software. The analysis consists of descriptive statistics, evaluation of measurement model, evaluation of structural model, and hypothesis testing. The analysis results support the hypothesis that strategic maneuverability, with dimensions of organizational agility, flexibility, and responsiveness, positively and significantly affects business performance in terms of finance, customers, internal process, and learning and growth. This study contributes to the literature on strategic management in general and the theory of maneuvers in particular in two respects: first, it operationalizes and develops measures of strategic maneuverability; second, it examines the relationship between strategic maneuverability and firm performance and provides empirical evidence.

**Keywords:** *Strategic Maneuverability, Business Performance, Organizational Flexibility, Organizational Agility, Organizational Responsiveness*

### 1. INTRODUCTION

D'Aveni and Gunther (1994) refer to the current business condition as hyper-competition, marked by fast-changing environments and fierce competition, in which companies compete aggressively against their competitors to dominate the market and achieve a sustainable competitive advantage on the one hand. However, companies' efforts to achieve and maintain a sustainable competitive advantage consume an enormous amount of resources. On the other hand, competitors are trying to imitate, neutralize, and overcome their competitive advantage. This study focuses on achieving and protecting a company's long-term competitive advantage by achieving a series of short-term competitive advantages to disrupt the status quo. Thus, the company needs the ability to maneuver strategically to create added value continuously in the face of a short-term competitive advantage and try to maintain it for as long as possible before the actions of its competitors erode it. Paley (2013) states that, as in war, a company needs a strategy to defeat its competitors, conquer markets, and protect its strategic resources to penetrate and expand its markets continuously. Many scholars examine military conflicts that date back thousands of years and gain insights that provide an additional dimension to business studies, particularly regarding firms' competitive advantage. The military viewpoint also provides fundamental principles that can foster an understanding of strategy, which can be applied to a multinational company aiming to strengthen its position globally or a small business struggling for survival every day. Besides, there are many references that associate military strategy with business, such as using strategic resources to exploit markets, developing business intelligence to anticipate competitors' actions, avoiding direct confrontation with strong competitors, bypassing high entry barriers, restructuring marketing activities to strengthen the market position, and using new technology to create innovative products. Various studies focus on warfare strategies for application in the business world, mostly related to business maneuvers (D'Aveni & Gunther, 1994; Paley, 2013; Pech & Durden, 2003; Pech & Slade, 2004, 2005).



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These studies state that military-like maneuverability is required to navigate turbulent environments, anticipate market dynamics, and increase profitability, business growth, and company survival. Business maneuvers target competitors' weaknesses with the support of organizational flexibility, movement speed, and tactical agility to maximize the element of surprise and beat the competitors. However, the existing studies are limited to theoretical declarations that are not substantially supported by empirical evidence. Therefore, many researchers doubt the concept and application of strategic maneuvers in the competitive business environment. This research's main objective is to examine the relationship between strategic maneuverability and company performance, using the case of service companies in the oil and gas industry in Indonesia.

A literature study was carried out to explore this concept theoretically, then the study proceeded with the effort to define the concept's operationalization and finally develop the dimensions and measures of its construct. This study contributes to the literature on strategic management in general and the theory of maneuvers in particular in two respects: first, it operationalizes and develops measures for strategic maneuverability, thus clarifying the concept; second, it examines the relationship between strategic maneuverability and firm performance and provides empirical evidence.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Strategic Maneuverability

In a hypercompetitive and rapidly changing business environment, strategic planning aims to create business disruption following the dynamic interactions of actions and reactions to competitors, develop the capabilities of value creation, operational effectiveness, and efficiency, and swiftly maneuver to adjust the future trends (D'Aveni & Gunther, 1994). Furthermore, D'Aveni and Gunther argue that this can be achieved through the essential elements of speed and surprise to beat the competitors. Speed is required to improve company's ability to serve customer desires at the right time and to enter the market as a first mover or as a fast follower. A company is also required to maneuver with agility in new directions and pursue new business opportunities faster than its competitors; thus, a company needs to increase its operational flexibility and adopt a lean production process and a flatter organizational structure. The surprise element is essential for a pioneering company in preventing or delaying competitors from following it, giving the company time to strengthen its market position and gain a competitive advantage that lasts for as long as possible. Flexibility and creativity support the company in developing innovation, technology, and new products that can disrupt the markets.

Uncertain and unpredictable market competition is similar to a war zone and can lead to a life and death situation for a company. Strategic maneuverability, supported by elements of speed, surprise, and flexibility, is required to navigate the business environment, anticipate the market dynamics, and increase survivability. The focus of strategic maneuverability is on targeting the competitors' weaknesses using the organization's flexibility, speed of movement, and agility of tactics to maximize the element of surprise for competitors (Pech & Durden, 2003). Furthermore, Pech and Slade (2004, 2005) adopt the theory of maneuvers in warfare and apply it to the business context considering the four key maneuverability elements: first, the mission analysis process, an analysis of company capabilities against competitors' intentions to determine the strategic intent; second, command, control, communication, and intelligence, which consist of leadership and control of organizational flexibility to facilitate responses based on accurate and reliable data; third, corporate actions, focusing on building and maintaining efforts to weaken competitors; and fourth, proactive initiatives, exercises to seize opportunities and to cope with the challenges that arise.

Paley (2013) suggests that, to beat competitors by focusing on their weaknesses, a company can use an indirect strategy maneuver consisting of five main elements: first, focus on the company's strengths to overcome the weaknesses of competitors; second, serve customer needs by solving their problems in a way that is better than the competitors; third, achieve psychological benefits by



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influencing the imbalance of the leaders of competing companies' minds so that they make wrong decisions and take inappropriate steps; fourth, convince competitors that competitive action that is too aggressive will exhaust their human, financial, and material resources; and fifth, focus on the competition's main objective, which is to gain a key position in the market competition to gain a competitive advantage and advantage. Thus, indirect maneuvers require essential resources in the form of market intelligence, flexibility, competent leaders, and strategic resources to gain new customers, win market share, and achieve strategic goals without entering into a direct confrontation that would consume company resources.

Zhang, Vonderembse, and Lim (2003) define organizational flexibility as a company's ability to meet increasing customer demand levels efficiently without experiencing disruption or loss. Rudd, Greenley, Beatson, and Lings (2008) state that organizational flexibility could be achieved by considering four factors: organizational flexibility, financial flexibility, structural flexibility, and technological flexibility. Organizational flexibility is a company's ability to adapt quickly to the market conditions, including the market position, goods and services offered, processes, and production capacity. Financial flexibility is a company's ability to acquire and use financial resources quickly. Structural flexibility is a company's ability to restructure the organization, reduce bureaucracy, and maintain effective communication skills between departments. Technological flexibility is a company's ability to keep updated with technological developments following customer demands. Organizational agility is a company's ability to change its direction and goals to maintain a competitive advantage, which consists of identifying opportunities and challenges and responding to the market demands accordingly. Weber and Tarba (2014) define organizational agility as the ability to observe and respond continuously to changes in the business environment and adjust the organizational structure to ensure the successful implementation of the chosen strategy. Morton, Stacey, and Mohn (2018) state that organizational agility is a continuous effort to adjust the direction of the company goals as a function of time and a function of strategic choices in response to environmental changes. The three main elements of organizational agility are strategic sensitivity, resource fluidity, and leadership unity. Strategic sensitivity is the sensitivity of a company's perceptions, concerns, and awareness of environmental changes, resource fluidity is a company's ability to rearrange and use existing resources differently, and leadership unity is the ability to make decisions quickly and precisely without complicated bureaucracy (Doz & Kosonen, 2010; Morton et al., 2018). Customer responsiveness is closely related to customer relationships and customer satisfaction, which can be achieved by fulfilling customer needs, adapting to customer demands, and focusing on customer solutions (Pehrsson, 2011, 2014; Sousa, Ruzo, & Losada, 2010).

In sum, the above studies show that the main elements of successful strategic maneuverability are organizational flexibility, organizational agility, and organizational responsiveness. Flexibility refers to an organization's ability to meet various types of customer demands without sacrificing time, effort, cost, and quality. Agility relates to the speed with which a company realigns its strategies and reconfigures its resources to deal with upcoming opportunities and threats. Responsiveness relates to an organization's ability to adjust the company systems proactively to anticipate a changing business environment.

### **Business Performance**

Business performance is a result of strategic planning and implementation by utilizing company resources, capabilities, and competencies to achieve long-term, medium-term, and short-term corporate goals. Some commonly used criteria of company performance are financial and non-financial measures. Financial measures include income, profitability, return on investment, return on equity, return on capital employed, asset turnover, and cash flow. Non-financial measures are market share, customer satisfaction, new customers, employee turnover, employee motivation, innovation and intellectual property, and social responsibility.



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Kaplan and Norton (1992) develop an organizational performance measure called the balanced scorecard, which is a collection of measurements that provides a comprehensive view of organizational performance consisting of financial performance, which describes the results of work undertaken, and operational performance, such as customer satisfaction, internal processes, innovation, and continual improvement activities. The balanced scorecard provides an overview of the organization's performance by considering the customer perspective, internal perspective, learning and growth perspective, and financial perspective. Apart from functioning as an instrument for measuring organizational performance, the balanced scorecard serves as a central point of coordination between management and employees, investors, customers, and stakeholders (Kaplan & Norton, 1993, 2004). Currently, the balanced scorecard is widely used in both business organizations and non-profit organizations, including, among others, corporate businesses (Olve, Petri, Roy, & Roy, 2003), state-owned enterprises (Adhiprasangga, Sari, Putra, & Wibisono, 2016), small and medium enterprises (Sewell, Mason, & Venter, 2017), education (Taylor & Baines, 2012), and the public sector (Pasaribu, Andika, Rachmanda, & Wibisono, 2016).

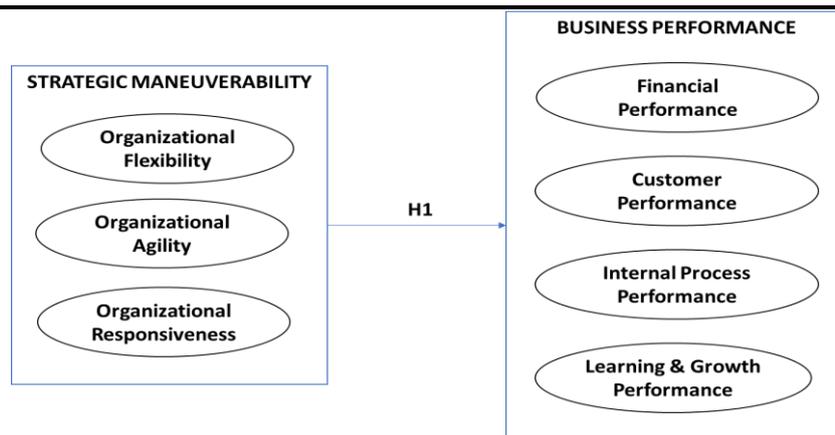
### Strategic Maneuverability and Business Performance

Strategic maneuverability, represented by organizational agility and organizational flexibility, will help firms to make fast decisions and accurate responses with the support of information about competitors' strategies, technological developments, customer needs, and the current situation of the market, which will increase the successful implementation of corporate strategies, in turn improving the business performance (Meredith & Francis, 2000). The studies by Dubey et al. (2019) and Santos-Vijande, López-Sánchez, and Trespalacios (2012) found that organizations with high flexibility can anticipate changes in customer preferences, competitor movements, technological development, and economic changes and can reposition themselves by reconfiguring their resources, capabilities, and competencies. Organizational flexibility will increase a company's capability to adjust its marketing offerings, product and service mixtures, and production capacity, thereby increasing the potential for implementing the chosen strategy.

The research conducted by Nzewi and Moneme (2016) shows that organizational agility is the ability to produce a competitive advantage in a changing and unpredictable environment by detecting and reacting quickly to changes, both in competing companies and in customer requirements. Asil and Farahmand (2019) state that organizational agility, which has customer-oriented characteristics, organizational commitments, and resource fluidity, is a dynamic feature with high value that is rare, difficult to imitate, and difficult to replace, so it can help companies to maintain a competitive advantage. The study conducted by Salih and Alnaji (2014) shows that organizational agility, which is reflected by speed, quality, flexibility, and leadership unity, directly influences business performance.

Supported by organizational flexibility and agility, a company can respond quickly and precisely to changes in the market demand, enabling it to produce a competitive advantage from knowledge of changing customer requirements, and in turn this will help to build the company's reputation and improve its performance (Pehrsson, 2011, 2014). A company's ability to respond quickly to customer needs, either by launching new products or by modifying existing products, can improve customer satisfaction, revenue growth, profit, and market share performance (Lee, 2010). Hence:

**H1:** Strategic maneuverability has a positive effect on business performance.



**Figure 1. Research Model**

### 3. RESEARCH METHODOLOGY

#### Data Collection

The data were collected from oil and gas service firms in Indonesia using random sampling. A questionnaire was sent by email to 337 companies randomly drawn from the vendor list in the oil and gas operators' database in Indonesia. Through the questionnaire, data were gathered from respondents consisting of C-level executives, directors, VPs, senior managers, and managers. The respondents were informed of the goals of the survey and assured of the confidentiality of their answers. Responses were received from 53 company executives, giving a response rate of 15.7%.

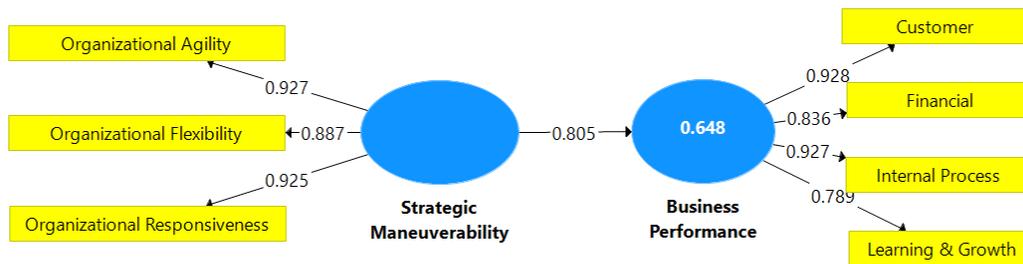
#### Measurement and Analysis

This study used multi-dimensional measures adopted from studies in the literature review and modified them slightly to fit the context. Business performance was measured using multi-dimensional scales consisting of finance, customer, internal process, and learning and growth adopted from Abuzaid (2018) and Dibrell, Craig, and Neubaum (2014). To measure strategic maneuverability, the study used multi-dimensional scales for organizational flexibility, organizational agility, and organizational responsiveness. Organizational flexibility consists of products, structure, technology, and fund flexibility (Gabrielsson, Seppälä, & Gabrielsson, 2016; Rudd et al., 2008), organizational agility involves the early detection of opportunities and threats, leadership unity, resource fluidity, and business model agility (Doz & Kosonen, 2010, 2016; Morton et al., 2018), and organizational responsiveness consists of the response speed, proactive response, problem solution, added value, and customer relationship (Meehan & Dawson, 2002; Sousa et al., 2010). All the responses to the multi-item measures were captured using five-point Likert-type scales (1—strongly disagree to 5—strongly agree).

The partial least square–structural equation modeling (PLS-SEM) method was used for the data analysis, which was performed with the Smart PLS version 3 software. The latent variables of strategic maneuverability and business performance were operationalized at a higher level of abstraction as higher-order hierarchical models that contain two layers of constructs. The data analysis performed included descriptive statistics, evaluation of the measurement model, evaluation of the structural model, and hypothesis testing.

### 4. RESULTS AND DISCUSSIONS

The PLS SEM analysis results can be found in the following Figure 2.



**Figure 2. PLS-SEM Results**

### Sample Characteristics

Table 1 shows the sample characteristics of the 53 respondents collected using the questionnaire sent to service companies supporting the oil and gas industry in Indonesia.

Table 1. Sample Characteristics (n = 53)

Description	Frequency	Percentage
Firm size (number of employees)		
Less than 50	28	52.8%
50–100	13	24.6%
More than 100	12	22.6%
Firm type		
Private	43	81.1%
State-owned	10	18.9%
Firm age (years)		
Less than 10	14	26.4%
10–20	21	39.7%
More than 20	18	33.9%
Respondents		
C-level executives, directors	38	71.7%
VPs, senior managers	11	20.8%
Managers	4	7.5%

### Evaluation of the Measurement Model

The reflective measurement model's evaluation focused on the validity and reliability of the constructs, which consist of indicator reliability, composite reliability, convergent validity, and discriminant validity (Garson, 2016; Hair, Hult, Ringle, & Sarstedt, 2017). Table 2 shows the analysis results for construct reliability and convergent validity. As presented in the table, all the variables used in this study have good validity as measured by convergent validity (AVE), ranging from 0.761 to 0.834, which are above the threshold value of 0.5. Likewise, in the measurement reliability test, the results showed that all the values for Cronbach  $\alpha$  (from 0.893 to 0.900), composite reliability (from 0.927 to 0.938), and loadings (from 0.789 to 0.928) have a value above the criterion of 0.7. Thus, all the measurement instruments used in this study have an adequate level of validity and reliability. Discriminant validity requires the AVE's square root value (bold) to be greater than the correlation value between variables. Table 3 shows that all the discriminant validity scores meet the Fornell–Larcker criterion.

**Table 2. Reliability and Convergent Validity**

Description	Loading	Cronbach $\alpha$	C Reliability	AVE
Strategic Maneuverability		0.900	0.938	0.834
Organizational Agility	0.927			
Organizational Flexibility	0.887			



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Organizational Responsiveness	0.925			
Business Performance		0.893	0.927	0.761
Customer	0.928			
Financial	0.836			
Internal Process	0.927			
Learning and Growth	0.789			

**Table 3. Discriminant Validity**

	Strategic Maneuverability	Business Performance
Strategic Maneuverability	<b>0.913</b>	
Business Performance	0.805	<b>0.872</b>

### Evaluation of the Structural Model

The structural model evaluation consists of the coefficients of determination ( $R^2$ ), SRMR, and Chi-square values. The coefficient of determination ( $R^2$ ) shows the size of the endogenous variable's variance caused by all the exogenous variables connected to it, the values of which are expected to be higher than 0.70 for most of the research. Meanwhile, the SRMR value of 0.071, between 0.03 and 0.08, and Chi-square value of 44.16 are considered to have a good fit of model (Hair et al., 2017). Table 4 shows the coefficients of determination ( $R^2$ ).

**Table 4. Coefficients of  $R^2$  and Adjusted  $R^2$**

	$R^2$	Adj $R^2$
Business Performance	0.648	0.641

### Hypothesis Testing

The analysis results support the hypothesis that strategic maneuverability has a positive effect on business performance. The regression coefficient is 0.805, with a t-value of 17.005, which indicates that H1 is supported at the 99% confidence level, as shown in Table 5.

**Table 5. Result of the Hypothesis Testing**

Hypothesis	Std coefficient	t-statistics	p-values
Strategic Maneuverability → Business Performance	0.805	17.005	< 0.001 *
<i>Note: * significant at the 99% confidence level.</i>			

### Discussion

Using the sample data of 53 service companies in Indonesia's oil and gas industry, this study explores the relationship between strategic maneuverability and firm performance. The results show a positive relationship between strategic maneuverability and firm performance ( $b = 0.805$ ,  $p < 0.001$ ), which means that each 1% change in strategic maneuverability will affect the business performance of 80%. This shows the significant influence of strategic maneuverability on business performance. The influence of the strategic maneuverability elements on companies' business performance can be ordered as organizational agility (loading = 0.927), followed by organizational responsiveness (0.925) and organizational flexibility (0.887). The most significant influence of strategic maneuverability on company performance was found to be the customers (0.928), followed by the internal process (0.927), finance (0.836), and learning and growth (0.789), respectively. This result is in agreement with studies that show a positive impact of organizational agility, organizational flexibility, and



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organizational responsiveness, which constitute strategic maneuverability, on firm performance, namely finance, customers, internal process, and learning and growth (Asil & Farahmand, 2019; Dubey et al., 2019; Meredith & Francis, 2000; Nzewi & Moneme, 2016; Salih & Alnaji, 2014; Santos-Vijande et al., 2012).

### 5. CONCLUSION

This study contributes to a better understanding of how strategic maneuverability can help to boost business performance. It provides empirical evidence that strategic maneuverability positively affects firm performance, namely financial, customer, internal process, and learning and growth performance, in the context of Indonesia's oil and gas service companies. The essential elements that constitute strategic maneuverability are organizational flexibility, organizational agility, and organizational responsiveness. Lastly, this study discusses how firms can use strategic maneuverability to cope with dynamic business environments by creating a competitive advantage to boost their performance.

This study suggests that a firm should focus on developing its organizational agility, organizational flexibility, and organizational responsiveness to increase its strategic maneuverability in the hyper-competitive business environments, achieve a competitive advantage, and improve firm performance. The strategic maneuverability can be crafted in three ways: first, increasing organizational flexibility by focusing on production flexibility, structural flexibility, technology flexibility, and funding flexibility. Second, increasing organizational agility by improving the capability to seize opportunities, leadership unity, and resource fluidity. And third, increasing the organizational responsiveness by improving customer relationships, increasing customer response speed, creating added value, and focusing on problem solutions. In sum, crafting strategic maneuverability can boost business performance, as shown in the case of service company supporting Indonesia's oil and gas industry.

### LIMITATION AND STUDY FORWARD

This study collected data using a questionnaire and the survey questions addressed to the organization's high level of management. Given the difficulty to approach executive level management in the organizations due to limited time and access, only 53 complete questionnaires were gathered. Hence, future research should consider to overcome this limitation and gather more responses from organizations. By having more samples, the study can examine more insights regarding the effects of company size, company age, company ownership that might affect the relationship between strategic maneuverability and business performance in the Indonesia oil and gas industry.

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## ANALYSIS OF GREEN-WASHING AND GREEN CONSUMER USING THE RASCH MODEL

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### Abstract

**Purpose:** As extensive information comes so fast, increasing consumer awareness of greening the environment increases, the issue of environmental damage caused by human waste, natural disasters, and non-renewable natural resources and damage to natural ecosystems make consumers careful in purchasing decisions. This study aims to know which statements describe which indicators in the green-washing and green consumer variables are the least liked or preferred based on the gender of generation Z.

**Research Methodology:** method of analysis using the Rasch model, a sample of 340 respondents generation Z

**Results:** item Green consumer (consumers throw garbage in their place, water-saving consumer, consumers like cleanliness). consumers are willing to pay more to get the product labeled eco-product/ go green

**Limitations:** This study is limited to explaining the response of generation Z regarding the items contained in the green-washing and green consumer variables

**Contribution:** this study can be useful in area marketing, production, and business management

**Keywords:** green- washing, green consumer, generation Z, green marketing

### 1. INTRODUCTION

In generation Z, a marketer must be more creative in implementing marketing strategies. Generation Z is very good at using technology and the internet at their fingertips. They get fast and up to date information on anything they want to look for, including searching for information about using a product or exploring a place. Generation Z will look for product information about the product manufacturing process, packaging, benefits, attributes attached to a work. Generation Z will also choose tourist attractions/hospitals/hotels by looking for references via the internet, such as convenience, security, and ease of access. (Arta and Purnami 2018; Punitha and Mohd Rasdi 2013)

As extensive information comes so fast, increasing consumer awareness of greening the environment is improving. Environmental damage caused by human waste, natural disasters, non-renewable natural resources, and damage to natural ecosystems makes consumers cautious in purchasing decisions. Increasing public concern for the environment encourages them to become environmentally responsible consumers and switch to using environmentally-based products (Rahayu, Abdillah, and Mawardi 2017); greening the future climate can create a sustainable life future generations. (Chae and Ko 2016)

Companies compete for the green consumer market segment. Green Consumer for the environment is a term for increasing consumer awareness of environmental problems, so that in choosing, using, recommending and purchaseing a product, starting from packaging, manufacturing processes, perceived benefits or service products such as hotels, hospitals, tourist attractions and so on. Green companies usually have a go green logo and a positioning to place a good impression on the minds of consumers. A green marketing strategy is applied to answer challenges about environmental issues that occur today. Green Marketing (environmentally friendly marketing) can be concluded that



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marketers' efforts to design, promote, determine prices, and distribute products with attention to environmental sustainability and green in the long term (Murin et al. 2015; Polonsky 2011). Products in the green marketing strategy are hereinafter referred to as eco-products, organic products, products that are easily recycled by marking the degree of ease with which the product decomposes (marked with a triangle or number symbol), non-toxic products (do not damage the ecosystem), water-saving products, energy saving, gasoline saving products, green-labeled products. (Simão and Lisboa 2017)

In Indonesia, for skincare and cosmetic products that are successful in the environmentally friendly market segment is The Body Shop as the market leader for the go green cosmetic brand. This company claims that their products do not use animals as experimental materials. For babies and toddlers' needs, baby diaper products that carry Go green Merries, produced by Kao, claim that the remaining used baby diapers will be recycled into other household items so that they don't damage the environment. A supplier of environmentally friendly food and beverage packaging specifically for the Bali area, Affinity Supply Co., claims that the products produced are readily biodegradable by nature. This company collaborates with restaurants and hotels. Suzuki car company participates in Corporate Social Responsibility regarding fuel-efficient cars and developing Smart Hybrid Vehicle by Suzuki technology as a bridge to electric vehicles. Other competing companies then follow them. The green consumer segment is willing to pay a premium price to get products labeled as environmentally friendly or use ecologically friendly service products to create a sense of security and satisfaction.

However, not all products that use a green marketing strategy are environmentally friendly. The company commits unethical acts by committing fraud in marketing communications, from now on known as green-washing. Several previous research findings stated that if green-washing increases, the product's increased risk perception can reduce the level of consumer satisfaction with the product (Martínez et al. 2020). Marketing communications that are not accompanied by good company performance with attention to greening the environment make the company impression that it will be worse than no advertising about going green (Nyilasy, Gangadharbatla, and Paladino 2014).

Products labeled as environmentally friendly must pass the AMDAL (Environmental Impact Analysis) process and be issued a go green (environmentally friendly), eco-label, eco-product certification. Products labeled as eco-friendly may also require several trials before they are declared eligible. However, not many consumers understand this certification process. Consumers believe more through advertising (green advertising) that is carried than to study in-depth. (Chen 2016)

Several studies have shown that green marketing positively affects purchasing decision behavior and purchase intention (Arta and Purnami 2018; Rini, Sukaatmadja, and Giantari 2017; Widyastuti 2019). Research on green advertising as part of green marketing affects the right brand image about the product and company (Chen 2016; Nyilasy, Gangadharbatla, and Paladino 2014; Walker and Wan 2012). However, previous studies have not discussed in-depth the statement items that describe which indicators in the green-washing and green consumer variables are the least liked or preferred based on the gender of generation Z.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The notion of environmental marketing science, starting with Leigh et al. in 1988, ecological product positioning research should be an essential consideration in consumer marketing. This research also dealt with an extensive theory of consumer behavior Ajzen in 1980. (Fisk et al. 1996)

### Green Marketing

Green marketing (green marketing) as a strategic effort to create a business based on environment and health has been known in the late 1980s and early 1990s. Green marketing appears as public awareness of a healthy and safe environment from sustainable environmental damage in the future. There are several definitions of green marketing based on previous research including: marketers



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carry out marketing strategy efforts by raising ecological issues in increasing the existence of environmental labels (environmentally friendly labels) and ensuring the presence of eco-products (Murin et al. 2015); Green marketing is defined as "the efforts of a company to design, promote, price, and distribute products in a way that promotes environmental protection." (Polonsky 2011); Green marketing is a concept that describes the implementation of a marketing program aimed at environmentally conscious market segments (Majerova 2015); Do Paco et al said that as a corporate social responsibility, green marketing refers to "a holistic management process that is responsible for identifying, anticipating and satisfying the needs of customers and society, in a profitable and sustainable manner" (Chae and Ko 2016); Green Marketing is a marketing process that has all the capabilities to increase the economic sense of a business without noticeably increasing its brand image as green. Apart from being a visual recognition, a brand is also related to consumers' intuitive feelings about a service or product (Punitha and Mohd Rasdi 2013); Welford defines green marketing as a management process that is responsible for identifying, anticipating and meeting customer and community requirements in a profitable and sustainable manner (Chan 2013); Green marketing is an approach that shows signs of shifting consumer attention to environmentally friendly products (Cherian and Jacob 2012). From some of these definitions regarding Green Marketing (environmentally friendly marketing), it can be concluded that the efforts of marketers to design, promote, determine prices, and distribute products by paying attention to sustainability and greening the environment in the long term.

The green marketing indicators consist of:

### 1) green product

Entrepreneurs wishing to use the green marketing concept came up with:

- a. Identify the customer's environmental needs and develop products to address those needs.
- b. Developing environmentally responsible products
- c. has a lower impact on the environment from its competitors.

Various products on the market support green marketing, including:

- a) Products are made from recycled materials.
- b) Products that can be recycled or reused.
- c) Efficient products that save water, energy or gasoline, save money, and reduce the environment's impact.
- d) Products with environmentally friendly packaging.
- e) Products with a green label.
- f) Organic products.
- g) A service that provides rental or loan services.
- h) A product certificate that meets or ensures that the product meets or exceeds the criteria for being environmentally responsible.

### 2) green price

Price is an essential element of the marketing mix; most customers are prepared to pay more if there is a perceived value of the additional product. This value can enhance performance, function, design, visual appeal, or taste. Environmental benefits are usually a bonus but will often be the determining factor between the product's value and its quality with that of competitors. Most of the green products' prices require extra costs incurred by consumers as a form of quality and environmentally friendly products.

### 3) green place

Choose where and when to make the product, have a significant impact on customers to become interested. Only a few customers are interested in purchasing green products. The location must also match the image that the company wants. The company's area must differentiate the company from competing companies; this can be done by in-store promotions and visually appealing displays or using recycled materials to emphasize environmental and other benefits.

### 4) green promotion

Promote products and services to target markets, including advertising, public relations, sales promotion, direct marketing, and on-site promotion. Smart green marketers will strengthen



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environmental credibility by using sustainable marketing and communication tools and practices. The key to the success of green marketing is credibility.

### Greenwashing

Contrary to green marketing. The term green-washing is used for companies or marketers who use the concept of environmentally friendly marketing but do not use the actual benefits ethically. Some definitions of green-washing are as follows: Green-washing is a marketing communication that raises environmental, social issues, but in fact, the products offered are not environmentally friendly (Lim et al. 2013); Green-washing is a term for advertising and labels that promises more environmental benefits than it produces but is still dubious (Dahl 2010); Green-washing, also known as eco-whitening, white-wash, eco-wash, eco-bleaching, green sheen or green image washing, is a form of advertising where green marketing is not practiced (Pires et al. 2019); Green-washing is defined as intentionally misleading or deceiving consumers with false claims about the company's environmental impact and practices (Nyilasy, Gangadharbatla, and Paladino 2014); Green-washing is a company that knowingly misleads or defrauds customers with false claims about their actions and environmental impacts to improve public reputation or further build a favorable public image (Zhang et al. 2018)

Furthermore, Zhang et al. developed five indicators to measure the perception of green-washing from a consumer perspective, namely: (1) product is misleading with words about its environmental features (2) misleading products with visuals or graphics regarding environmental features; (3) work is associated with vague or seemingly unprovable green claims; (4) the product exaggerates or exaggerates what green does; (5) products leave out or cover up important information, making green claims sound better than that.

Meanwhile, according to previous research (Nyilasy, Gangadharbatla, and Paladino 2014), green-washing is a consumer reaction to a situation where green advertising messages and real corporate social responsibility (CSR) interact. Thus the green-washing indicator can be divided into 2: green advertising (communication and environmental performance) and Corporate Social Responsibility (CSR).

To value thousands of products in the United States and Canada, TerraChoice Environmental Marketing categorized marketing claims into the "seven sins of green-washing" (Dahl 2010): The sin of hidden trade-offs: made by suggesting a product is "green" based on a narrow set of attributes that makes no sense without paying attention to other critical environmental concerns (e.g., paper produced from sustainably harvested forests may still generate energy and costs significant pollution). Sin without evidence: committed by ecological claims that cannot be substantiated by easily accessible supporting information or by reliable third-party certification (e.g., paper products claiming varying percentages of post-consumer recycled content without proof). The sin of obscurity: committed by any claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by consumers (e.g., "Natural"). Irrelevant sin: committed by making environmental claims that may be true but insignificant or unhelpful to consumers looking for environmentally friendly products (e.g., "CFC free" is meaningless given that chlorofluorocarbons are banned by law). Sins less than two crimes: committed by claims that may be true in the product category, but the risk of distracting consumers from health or environmental impacts is greater than the type as a whole (e.g., organic cigarettes). The sin of fibbing: committed by filing a completely false environmental claim (e.g., a product falsely claiming to be Energy Star certified). The sin of fake labeling: committed by exploiting consumer demand for third party certification with counterfeit labels or third party support claims (e.g., images such as certification with green jargon such as "environmentally friendly")



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## Green Consumer

Green Consumer or consumer care for the environment is a term for increasing consumer awareness of environmental problems, so that in choosing, using, recommending and purchasing a product, starting from packaging, manufacturing processes, perceived benefits or service products such as hotels, hospitals, tourist attractions and so on. Several definitions of the green consumer have been widely discussed in previous studies including Environmentally friendly consumers are consumers who prefer products that are less likely to endanger human health or damage the environment (Zhu and Sarkis 2016); Green Consumer is Consumers increasingly aware of pressing environmental problems in a fast-growing global economy (Lai and Cheng 2016); Green Consumer is a consumer who is mindful of the responsibility for environmental protection and environmental regulations (Chang et al. 2019)

The three distinctive statements of green consumers are, first, "I identify myself as someone who cares about 'green/environmental issues,' second, "I purchase and consume green products," and third, "I consider my lifestyle to be 'green. " (Zhu and Sarkis 2016)

### 2.4 Previous Research

Overall, green marketing and consumerism are still relatively young, and research on the topic of green marketing in China is even more emerging. The study focuses only on green issues in China. This research on green marketing has proposed "4Rs" (Transfer of customer needs, Reconsumption, Reorientation of the marketing mix, Reorganization); However, minimal research has been conducted focusing on China using the 4R perspective. (Zhu and Sarkis 2016) Green marketing research in Hong Kong uses a measurement tool for consumer perceptions, attitudes, problems, responsibilities, expectations, and habits. To further convince consumers to consume green products, packaging and advertising strategies should emphasize individuals' positive effects on specific environmental issues if green products are purchased to change consumers' attitudes and feelings of responsibility towards the environment. (Lai and Cheng 2016)

Previous research also studied several cooperative contracts in green product supply chains and investigated their environmental performance. This problem is analyzed and modeled in three agreements to increase cooperation: price only, green marketing cost-sharing, and two-part tariff contract. The analysis results show that collaboration among partners can help supply chains achieve environmental improvements. (Hong and Guo 2019)

Another research finding, energy provider communication, appears to be in line with academic research on potential customer benefits (practical benefits, "warm light," natural experiences). However, detailed information about the impact of consumer decisions can improve communication. Besides, providers can increase their visual messages' effectiveness by using more images related to renewable energy. (Herbes and Ramme, 2014). Christian Fuentes stated that green products marketed not only through practice, but they are also sold as enabling practitioners, that is, tools in the fulfillment of ways that are problematic to the environment (Fuentes 2015).

Pires et al. stated that green-washing confuses and influences consumers' trust in green products in retail. After implementing the system, it is concluded that the results are feasible. Using fuzzy logic can help analyze and determine consumer satisfaction levels and help companies make future estimates of consumer behavior from green products (Pires et al. 2019). Other research shows that today, consumers purchase green products based on organizations' green claims, where many consumers remain confused and unsure about their authenticity. The aftereffect is when consumers become aware of the existence of green-washing points towards distrust, more prudent purchasing behavior in the future, and spread their presence to other consumers through word of mouth (Lim et al. 2013)



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Nyilasy et al.'s research shows that the negative effect of low firm performance on brand attitude is more substantial in the presence of green advertising compared to general company advertising and no advertising. Furthermore, when the company's environmental performance is high, both green advertising and public company produce a more unfavorable brand attitude than no advertising. (Nyilasy, Gangadharbatla, and Paladino 2014)

Ecolabel has emerged as one of the main tools of green marketing. Green marketing can learn from conventional marketing in finding ways other than labeling to promote eco-friendly products. Examples include addressing a wider range of consumers, working with positioning, pricing and promotion strategies and being actively involved in market creation. (Rex and Baumann 2007). Komitmen sumber daya yang tepat sangat penting untuk keberhasilan setiap inisiatif hijau. Studi ini juga mendukung gagasan bahwa menjadi perusahaan pertama dalam industri yang memulai program hijau memberikan sedikit manfaat nyata. (Richey et al. 2014)

Substantive actions on environmental issues (green roads) do not harm or benefit the company financially, but symbolic actions (green talk) are negatively related to financial performance. Green-washing (the difference between green talk and green walk) harms financial performance, and green-highlighting (the concentrated effort of dialogue and hike) does not affect economic performance (Walker and Wan 2012)

Increasing awareness about various environmental issues has led to a shift in the way consumers live people's lives. There has been a change in consumer attitudes towards a green lifestyle. People are actively trying to reduce their impact on the environment. However, it is not widespread and is still developing. This study introduces green marketing and looks into the various ways in which different consumer attributes are related to the idea of green marketing (Cherian and Jacob 2012). Eco-labeling in the food industry is focused solely on promoting organic farming, limiting the scope to the agricultural stage of the supply chain. Carbon labeling informs about the carbon footprint over the product life cycle. (Barbulescu 2017)

Ad design with self-referencing and strong arguments has the best advertising effect; positive moral emotions and social emotions have a better advertising effect, and under the action of emotion, subject preferences for ad design will also change. This research is useful for constructing and optimizing green advertising designs to understand the relationship between the factors that influence the advertising effect and green marketing benefits. (Kao and Du, 2020). Consumers develop positive green marketing awareness based on evolving environmental knowledge. They become aware of a retail store's eco-marketing program when they notice that the store allocates a particular space to sell eco-friendly products. (Suki, Suki, and Azman 2016)

From the literature review and previous research, the conceptual framework in this study is





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### 3. RESEARCH METHODOLOGY

The population of generation Z in South Sumatra, the sample uses the Lemeshow formula, with a selection of 340 respondents. This research is quantitative research. Rasch modeling was initially being used in education to determine individual academic abilities. Over time this modeling was applied in other fields of science. The data were collected through a questionnaire, and then the data was tabulated with Microsoft Excel software. The SPSS tool is used to describe the profile of respondents with frequency analysis. Then the data were analyzed using the Rasch model assisted by Winstep software. The Rasch model converts the item scores measured on a Likert rating scale (which are ordinal data) into interval scales called "logarithmic probability units" (logits). Cronbach's  $\alpha$  coefficient is used as an index of internal consistency of reliability: if the value is close to 1, it indicates that the internal measurement's surface is good. The validity level of the response on the item based on the amount of Outfit Mean Square (MNSQ) received was  $0.5 < \text{MNSQ} < 1.5$ , the Outfit Z-Standard (ZSTD) conformity of the received value of the z test  $-2.0 < \text{ZSTD} < +2.0$ , and Point Measure Correlation (Pt Mean Corr)  $0.4 < \text{Pt Mean Corr} < 0.85$ . If the instrument items' items meet at least one of the above criteria, the instrument item is suitable for use. The validity test concludes that all green-washing and green consumer items have statistical fit measures so that the instrument can be used for research. Rasch modeling overcomes data integrability by accommodating logit transformations by applying logarithms to the odds ratio of the respondents' raw data. This study's univariate analysis shows statement items that describe which indicators in the green-washing and green consumer variables are the least liked or preferred based on the gender of generation Z seen from the Wright map items' distribution people (characteristics) generated from the Rasch Modeling. (Nguyen and Ng 2014; Sari et al. 2016; Setiawan, Panduwangi, and Sumintono 2018)

### 4. RESULTS AND DISCUSSIONS

The questionnaire was distributed online so that the generation Z category respondents born from 1995 to 2010 exceeded the target, namely 340 respondents. Respondent profiles are described in the following table

**Table: 1 Respondent Profil**

Information	Frequent	Persentase
<b>Sex</b>		
Male	119	35
Female	221	65
<b>Statue</b>		
Single	340	100
<b>Job</b>		
College Student	338	94,2
Student	2	0,6
<b>Age</b>		
Under 25 years	340	100
<b>Monthly expenses</b>		
1-2 million rupiah	94	27,6
2-5 million rupiah	12	3,5
5-10 million rupiah	1	0,3
Under 1 million rupiah	233	68,5

primary data processed (2020)

Table 1 explains that most respondents are women under 25 years of age and 221 respondents or 65 percent of the total sample. These female respondents are students, with the most monthly expenses spending below 1 million rupiahs 156 respondents or 70 percent of the total female respondents. Furthermore, 26 percent (58 respondents) of female respondents spent around 1-2 million each month.

2 percent (6 respondents) spent approximately 2-5 million. Only one female respondent stated that she spent more than 5 million rupiahs.

As many as 117 male respondents (98 percent) were college students, 2 percent were students. Seventy-seven respondents or 65 percent of male respondents spent less than 1 million rupiahs per month, 36 respondents or 30 percent of male respondents spent around 1-2 million rupiahs per month, 6 (5 percent) male respondents men spend approximately 2-5 million rupiahs. It can be concluded that male respondents with the status of students spend the most money under 1 million rupiah per month.

The respondents' knowledge of eco-green product brands as a whole is quite diverse. On average, stainless steel or bamboo materials tend not to be branded or branded, but respondents cannot clearly remember the brand. Respondents know that this straw made of stainless steel or bamboo has replaced the plastic straw that has been used to anticipate future build-up of garbage.



**Figure 2. Environmental friendly straw products (source from the internet)**

### Validity and Reliability Test

Data analysis using the Rasch model tends to deepen each item statement in a questionnaire. Here's about the validity test:

The level of validity of the response on items based on the value of Outfit Mean Square (MNSQ) received was  $0.5 < \text{MNSQ} < 1.5$ , the Outfit Z-Standard (ZSTD) conformity of the received value of the z test  $-2.0 < \text{ZSTD} < +2.0$ , and Point Measure Correlation (Pt Mean Corr)  $0.4 < \text{Pt Mean Corr} < 0.85$ . From table 2 Item Statistics MisFit Order regarding the validity test, it can be concluded that the questionnaire used is valid.



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**Table 2 Item Statistics Misfit Order**

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL		INFIT		OUTFIT		PTMEASUR-AL		EXACT OBS%	MATCH EXP%	Item
				S. E.	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.				
23	1056	340	.48	.06	1.55	6.56	1.55	6.60	A	.14	.41	32.8	41.8	gc14
21	1059	340	.47	.06	1.48	5.86	1.48	5.91	B	.21	.41	36.1	41.4	gc12
22	1392	340	-.72	.07	1.28	3.64	1.31	3.76	C	.28	.33	32.8	38.6	gc13
16	1559	340	-1.62	.09	1.23	2.24	1.22	1.91	D	.27	.24	64.2	60.9	gc7
18	1048	340	.51	.06	1.23	2.97	1.22	2.94	E	.38	.42	35.8	41.8	gc9
20	1083	340	.39	.06	1.20	2.59	1.21	2.78	F	.36	.41	38.5	41.3	gc11
12	1548	340	-1.54	.08	1.14	1.49	1.08	.79	G	.29	.25	61.8	56.9	gc3
3	1057	340	.48	.06	1.10	1.33	1.10	1.40	H	.45	.41	34.0	41.8	gw3
8	1230	340	-.11	.06	1.09	1.23	1.08	1.15	I	.38	.38	34.6	39.0	gw8
13	1187	340	.04	.06	1.07	1.02	1.09	1.21	J	.35	.39	39.3	40.2	gc4
4	1067	340	.44	.06	1.00	.08	1.00	.02	K	.49	.41	42.0	41.5	gw4
11	1218	340	-.06	.06	.98	-.26	1.00	-.04	L	.36	.38	42.6	39.5	gc2
15	1143	340	.19	.06	.98	-.30	.99	-.16	k	.38	.40	44.7	40.7	gc6
14	1592	340	-1.90	.10	.97	-.20	.84	-1.37	j	.31	.21	72.2	70.6	gc5
5	1095	340	.35	.06	.87	-1.88	.87	-1.85	i	.49	.41	42.6	41.1	gw5
9	1099	340	.34	.06	.86	-1.97	.87	-1.82	h	.47	.41	44.4	41.1	gw9
2	983	340	.72	.06	.83	-2.58	.83	-2.56	g	.47	.43	44.1	41.2	gw2
6	1184	340	.05	.06	.80	-3.02	.79	-3.10	f	.49	.39	45.9	40.2	gc1
10	1228	340	-.10	.06	.79	-3.20	.80	-3.01	e	.38	.38	45.3	39.0	gc1
1	1019	340	.60	.06	.79	-3.19	.79	-3.15	d	.48	.42	47.9	41.6	gw1
17	1085	340	.39	.06	.75	-3.85	.75	-3.84	c	.44	.41	48.2	41.3	gc8
19	1168	340	.11	.06	.69	-4.89	.70	-4.78	b	.45	.39	49.7	40.5	gc10
7	1055	340	.48	.06	.62	-6.04	.63	-6.00	a	.54	.41	52.7	41.8	gw7
MEAN	1180.7	340.0	.00	.06	1.01	-.1	1.01	-.1				44.9	43.7	
P. SD	173.1	.0	.72	.01	.24	3.2	.24	3.2				9.9	7.8	

Primary data processed (2020)

Reliability test to measure overall that the questionnaire is suitable for use, it is known that the alpha value is more than 0.6 < 0.99 so that it can be concluded that the questionnaire is ideal for use, see table 3 :

**Table 3 Reliability Test**

Person	340 INPUT		340 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	79.9	23.0	56.23	2.65	1.01	-.2	1.01	-.2
P. SD	9.4	.0	6.34	1.28	.60	2.0	.59	1.9
REAL RMSE	2.94	TRUE SD	5.62	SEPARATION	1.91	Person	RELIABILITY	.79

Item	23 INPUT		23 MEASURED		INFIT		OUTFIT	
	TOTAL	COUNT	MEASURE	REALSE	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	1180.7	340.0	50.00	.65	1.01	-.1	1.01	-.1
P. SD	173.1	.0	7.23	.12	.24	3.2	.24	3.2
REAL RMSE	.66	TRUE SD	7.20	SEPARATION	10.83	Item	RELIABILITY	.99

Primary data processed (2020)

## Wright Map Analysis

Table 4 classified the items according to their item logit scores (shown in Figure 4). The classification of items into six strata is done by dividing the items' logit score into six equal parts. Specifically, the stratification process uses percentile values of 16.67, 33.33, 50, 66.6, 7, and 83.33, respectively. Figure 4 is an item-person map. The left-hand side shows the respondents' distribution according to their logit scores, from the person who disagreed the most (logit score  $\frac{1}{4}$  - 3.63) to the person who most agreed (logit score + 3.44). On the right side of the map is displayed the difficulty level of each item, ranging from the easiest to agree on (logit score  $\frac{1}{4}$  - 1.12 for Gc5 items) to the most



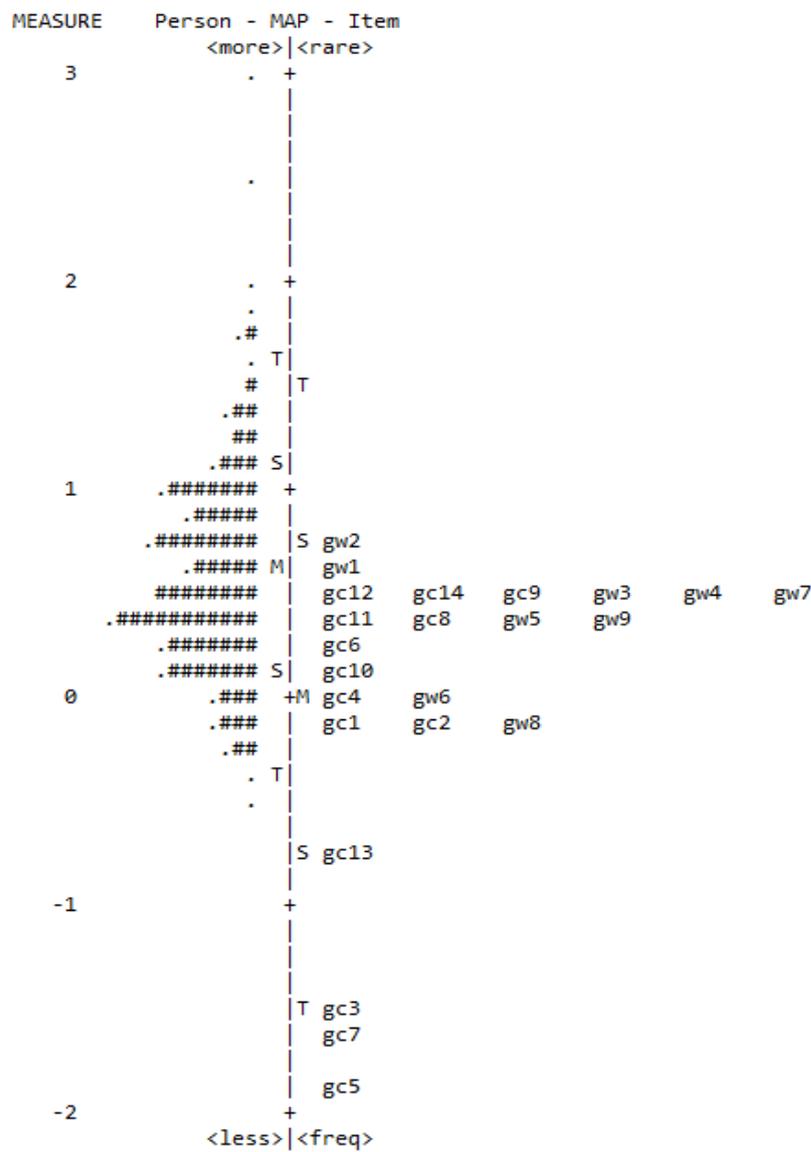
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difficult to agree on (logit score $\frac{1}{4} + 0.72$  from item gw2). These items function well and can separate each respondent, meaning that they have good discriminatory power.

**Table 5 Classification of Items following the Respondent Item Logit Score**

Category	Criteria	Item
More difficult to be considered		
Difficult strata I	Logit Value $\geq 0.7249$	Gw 2 (visually misleading) LV 0.72
Difficult strata II	$0.7249 > LV \geq 0.4234$	Gw 1 (misleading words) LV 0,60 Gc 9 (prefer to take transportation) LV 0,51 Gw7 (there is no CSR) LV=0,48 Gc 14 (consumers like to purchase bottled water) LV=0,48 Gw3 (the green claim is not clear) LV=0,48 Gc12 (consumers are willing to purchase plastic bags) LV=0,47 Gw4 (exaggerate product functionality) LV=0,44
Difficult strata III	$0.4234 > LV \geq 0.0100$	Gc11 (consumers bring their own grocery bags) LV = 0,39 Gc 8 (consumers know the green product certificate) LV = 0,39 Gw 5 (cover important information) LV =0,35 Gw 9 (green claims do not match performance) LV = 0,34 Gc 6 (consumers like to recycle unused objects) LV =0,19 Gc10 (loyal consumers with green products) LV=0,11 Gw 6 (product green certificate is uncertain) LV=0,05 Gc4 (consumers pay attention to the green label) LV=0,04
More comfortable to be agreed or considered		
Difficulty Strata IV	$0.0100 > LV \geq -0.2934$	Gc2(consumers are willing to pay more) LV = -0.06 Gc1 (consumers purchase green products) LV = -0.10 GW8 (consumers are less aware of green products) LV = -0.72
Difficulty Strata V	$-0.2934 > LVI \geq -0.7966$	Gc 13 (using own bottle of water) LV = -0,72
Difficulty Strata VI	$LVI < -0.7966$	Gc 3 (consumers throw garbage in their place) LV = 0.72 Gc7 (water saving consumer) LV = -1.62 Gc5 (consumers like cleanliness) LV = -1.90

Primary data processed (2020)



**Figure 4 Variable Maps**

The three separate groups of respondents are as follows (see figure 5): there are 163 people (47 percent) who are very easy to consider; 158 people (47 percent) thought it was enough; and 19 people (6 percent) who are very difficult to consider nine green-washing items and fourteen green consumer items. From the right side of the item-person map, it can be seen that Gc 3 (consumers throw garbage in their place)  $LV = 0.72$ , Gc7 (consumers save water)  $LV = -1.62$ , Gc5 (consumers like cleanliness)  $LV = -1.90$  are items that are highly liked or considered by the majority of respondents in describing themselves as green consumers. Green-washing item Gw 2 (misleading product with visual or graphic about its environmental features)  $LV = 0.72$ , considered as the most difficult item to like in the green-washing variable, the second item that is difficult to like is Gw misleading)  $LV 0.60$ , Gw7 (no CSR)  $LV = 0.48$ , Gw3 (unclear green claim)  $LV = 0.48$ , Gw4 (exaggerate product functionality)  $LV = 0.44$ .



## DIF (Differential Item Functioning)

The detection of bias on items in the Rasch model analysis is shown on the DIF. DIF is necessary to determine whether the items provided tend in confident respondents' categories. Figure 6 shows the types of respondents based on gender. Male respondents from 22 question items 9 question items did not contain bias. In comparison, the value of 13 items below 0.05 meant that they had a bias, female respondents from 22 question items only 6 items that did not contain bias, while 16 question items contained bias. It can be concluded that the response of men is different from that of women. Male respondents found it more difficult to answer questions than female respondents.

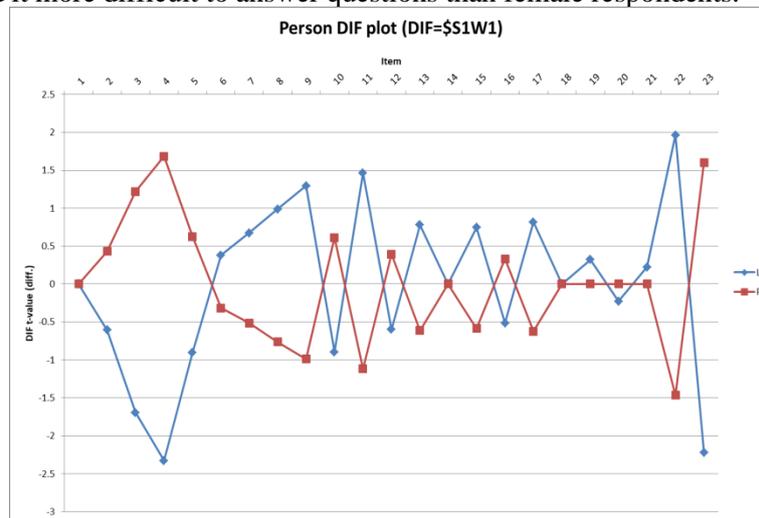


Figure 6. Person DIF Plot (Gender)

Figure 7 shows the categories of respondents based on expenses. Respondents with expenditures below 1 million from 22 question items 9 question items did not contain bias, while the value of 13 items below 0.05 meant that they contained bias, respondents with expenditures of 1-2 million from 22 question items only 8 items that did not contain bias, while 13 question items biased. Respondents with spending 2-5 million from 22 question items, only six items that have no preference, while 16 question items contain bias. Respondents with spending 5-10 million from 22 items of question 9 items that contain no bias, while 13 items have a bias. It can be concluded that respondents with expenditures under 1 million and respondents with 5-10 million expenses were more comfortable to answer questions than other expenditure classifications.

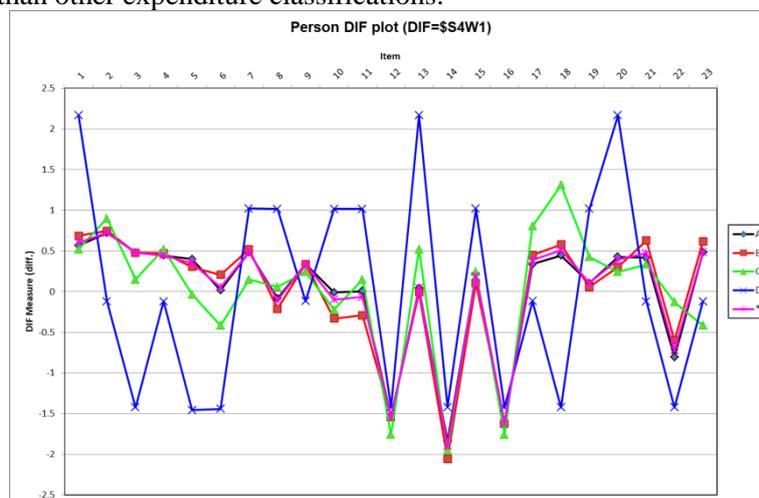


Figure 7. Person DIF Plot (Expense)



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### Are consumers willing to pay more for products labeled Go Green?

Based on the frequency analysis, the average value of respondents answering questions is on a scale of 4, which means that the respondent agrees to pay more for products labeled Go Green. They believe by purchasing environmentally friendly products, and they can contribute to saving the environment. Based on gender, we know that 65 percent of female respondents in generation Z are more willing to pay more than male respondents.

Based on the analysis of the Rasch model on the statement item, consumers are willing to pay more for products labeled go green. We know that this item's total score is 1218, with 340 respondents who answered that the measured value is -0.06 with the S.E model 0.6. Infit MNSQ 0.98 and ZSTD -0.26. MNSQ Outfit 0.98 and ZSTD -0.20. PT Measure Correlation 0.36 and EXP 0.38. Statistically, this statement item is valid. This item is classified as Easier to be agreed upon or considered.

### DISCUSSION

Generation Z considers statement items classified as green-washing challenging to answer because they do not believe that companies carry an environmentally friendly label but do not carry out environmentally friendly activities. The statement is consistent with the research of Pires et al. Stated that green-washing is confusing and influences consumers' trust in green products in retail. The result of the variable mapping, all items of green-washing statements, are in the stratum of problematic statements. According to the Walker research, green-washing harms financial performance (Walker and Wan 2012). For green consumers, even though some companies have a go green logo or promote environmentally friendly good corporate advertising, the company does a little environmental damage but continues to improve the company's performance in anticipating environmental damage, greenhouse effect, waste disposal by trying to innovate on performance and products that are guaranteed to be environmentally friendly, because the company realizes that green-washing can cause losses in the future. Consumers appreciate this transitional change process.

Visual items and misleading wording in company advertising use green advertising, but the company has not entirely looked after the environment are the most difficult items consumers dislike and are challenging to answer. Consumers do not think the company is lying. They believe there is a process towards better protecting the environment and the earth. Consumers perceive companies that do green advertising better than none at all. The statement is following Nyilasi's research. (Nyilasy, Gangadharbatla, and Paladino, 2014). However, the results of this study were different from Dahl's (Dahl 2010). Green consumers do not doubt companies that carry environmentally friendly or products labeled go green. They trust the company.

Green consumers protect the environment by not littering, and consumers save on water and energy, consumers who bring their drinking bottles that can be used more than once, so they don't use disposable drinking water bottles, and consumers who like to clean the environment. Consumer awareness of the environment encourages companies both in industry and tourism to carry out green practices in a sustainable manner. Environmentally friendly labeling activities can be focused primarily on the organic food industry, organic cosmetic products, or agricultural ingredients. It is not surprising that currently, there are technological developments related to this environmentally friendly concept, exceptionally clean and recycled water. Consumers are also willing to pay more for products labeled go green (Fuentes 2015; Průša and Sadilek 2019)

### 5. CONCLUSION

From the section above, we can conclude that the most preferred statement items are the statement items that describe the green consumer variable. Thus, it is necessary to increase green marketing communication to know about products labeled green / go green. Consumers are also willing to pay more for products labeled go green. The statement is an advantage for the company in increasing



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profits and maintaining customer loyalty. Companies need to raise awareness of environmental sustainability and the use of technology aimed at environmental preservation.

### LIMITATION AND STUDY FORWARD

This study is limited to explaining generation Z's response regarding the items contained in the green-washing and green consumer variables. Future research is expected to use respondents with different categories to find out more about consumer behavior towards green products and responses to companies that use green labels.

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## THE EFFECT OF JOB SATISFACTION AND EMPLOYEE ENGAGEMENT ON TURNOVER INTENTION OF MILLENNIALS GENERATION IN PALEMBANG

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### Abstract

**Purpose:** This study aims to determine the effect of job satisfaction and employee engagement partially and simultaneously on turnover intention of millennial generation in Palembang.

**Research Methodology:** The scope of this research is focused on the analysis and discussion of the independent variables: job satisfaction (X1) and employee engagement (X2), and their effect on the dependent variable: turnover intention (Y). The population in this study is the millennial generation in Palembang from 20-38 years (born in 1982-2000). Data were collected from 203 employees as sample of this study. Multiple linear regressions were conducted as analytical method to determine the relationship among those variables.

**Results:** The result shows that 1) job satisfaction has a negative and significant effect on turnover intention; 2) employee engagement has a negative and significant effect on turnover intention; 3) job satisfaction and employee engagement simultaneously have negative and significant effect on turnover intention of millennial generation in Palembang.

**Limitations:** This study only focuses on job satisfaction and employee engagement variables on millennials generation in Palembang. Further researcher can add other variables that can affect turnover intention of millennials generation, such as organizational commitment, training, organizational support, leadership, organizational climate, compensation, and organizational justice. Further research may also consider using other research objects other than Palembang, such as sample from other cities in Indonesia.

**Contribution:** Contributing to public policy in government as well as an alternative solution for business stakeholders to formulate corporate strategies in dealing with the phenomenon of the 2020-2030 Indonesian millennial workforce.

**Keywords:** *Job satisfaction, Employee engagement, Turnover intention, Millennials, Palembang*

### 1. INTRODUCTION

Indonesia is now entering the demographic bonus phenomenon. The demographic bonus is a phenomenon where the portion of the productive population is greater than the share of the unproductive population (Badan Pusat Statistik, 2018). The opportunity for this demographic bonus occurs in the period 2020-2030. With the significant increase in the number of productive populations, it is certainly a golden opportunity of the economy (Badan Pusat Statistik, 2018). The productive population in this era is dominated by generation Y or the millennial generation (Statistik Gender Tematik Kemenpppa & Badan Pusat Statistik: Profil Generasi Millennial Indonesia, 2018).

The term millennial itself was first discovered by Neil Howe and William Strauss (2000) in their book, *Millennials Rising: The Next Great Generation*. They found this term in 1987, when children born in 1982 entered pre-school (Howe & Strauss, 2000). Millennial generation (also known as generation Y) who were born in 1982-2000 (Ali & Purwandi, 2017).

According to the Indonesian Social-Economic Survey by the Central Bureau of Statistics in 2017, the number of millennial generations reached around 88 million or 33.75% of the total population of



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Indonesia (Badan Pusat Statistik, 2017). A large millennial population is an important phenomenon that must be point of concern (Yuniasanti R., et al., 2019). In 2020, the year of demographic bonus phenomenon starts, millennials are in the age range of 20-40 years. This age is the productive age that will form the backbone of the Indonesian economy (Statistik Gender Tematik Kemenpppa & Badan Pusat Statistik: Profil Generasi Millennial Indonesia, 2018).

Millennials have some work values, they are passion, work-life balance, free time, and a sense of security from work. These values are closely related to the view of the millennial generation on the concept of work itself (Purba & Ananta, 2018). Millennials feel comfortable with changes so that high turnover rates and job dissatisfaction are often considered normal for this generation (Dewantoro & Purba, 2018). Technology and gadgets have become good friends for millennials, making this generation need more flexibility in working anywhere and anytime, to do various tasks given by their superiors. If they are not accommodated, dissatisfaction at work may arise and do not be surprised if they get resign of their job because of it (Nurhasan, 2017).

The success of an organization depends on its ability to manage various kinds of resources, one of the most important, are human resources (Cholil & Riani, 2003). Human resource is always attached to any organizational resource as a determining factor for its existence and role in contributing to the achievement of organizational goals effectively and efficiently (Cholil & Riani, 2003).

Job satisfaction is a general attitude towards a person's job, which shows the difference between the number of awards received by workers and the amount they believe they should receive (Robbins, 2013). Employees who have high job satisfaction are more likely to stay at the company, while employees who have low job satisfaction will have the intention to leave the company (Merissa, 2018).

Job satisfaction is also influenced by work engagement. High work engagement will cause employees to have higher job satisfaction when compared to employees who do not have work engagement (Merissa, 2018). When employees feel engaged, they will try to give their best contribution to achieve the goals of the company or organization (Bakker & Leiter, 2010).

Employee engagement is achieved if the employee/employee knows what the organization expects, has the necessary resources to complete their work, has the opportunity to participate in organizational growth and believes that the contribution made has a significant effect on the organization (Larasati, et al., 2018). Employee involvement in the company is very important because involvement is an effort to improve the relationship between the company and its employees (Larasati, et al., 2018).

Employees who feel engaged in their work are employees who are highly motivated towards their work, and are emotionally connected to their organization and have high enthusiasm for the success and progress of their organization (Kompaso & Sridevi, 2010). Employees tend to quit (quit) from the organization if they don't feel involved or are no longer committed to their work (Salahudin et al., 2016).

Based on previous research, it was found that millennial generation employees showed a higher turnover intention to leave their jobs compared to other generations or more commonly known as millennial turnover intention (Ertas, 2015). Millennial Generation is known as a generation that has a very low level of tolerance for mismatches between what they expect and what they receive from the organization. They will choose to resign from the organization when their work is not as expected and unable to meet their needs (Kim et al., 2009). This is a problem experienced by many companies lately, especially by companies that employ many millennial generation employees (Raharjo, 2015).

As many as 65.8% of Indonesian millennial generation employees choose to leave their jobs after working for 12 months (Lie & Andreani, 2017). As many as 3 out of 10 Millennials plan to stay in



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one company for only 2-3 years. Only 1 in 10 Millennials which states that they will stay in a company for more than 10 years (Indonesian Millennial Report IDN Media, 2019). The phenomenon of millennial generation turnover intention is a problem that requires a solution. Of course, the actual employee turnover rate can be predicted from the employee turnover intention rate (Van der Heijden et al., 2018).

Previous research from the Deloitte Indonesia Survey for Millennials as Workforce 2019 in the time between February-March 2019 to 100 millennial respondents born between 1981-2000 in Indonesia regarding the world of work (Deloitte Indonesia, 2019). This research is related to the ideal duration of time to stay in one workplace, the results show that 15% of respondents answered more than 5 years, 24% of respondents answered between 1-2 years, and almost half the number of respondents or 49.5% of millennials admitted the ideal time to work in a workplace or company is 3-5 years (Deloitte Indonesia, 2019).

The main cause of turnover intention is the desire to get a new, better job. To deal with this problem, companies should be able to develop employee stay intention to remain the employee's loyalty to the company (Purba and Ananta, 2018). In order to understand what are factors encourage employees to become attached to the organization, an organization needs to know what dimensions the employee is engaged to (engagement drivers), or want to break away from the organization (engagement threats). Organizations need to know which engagement drivers are more suitable for millennial generation (gen Y) so that it is easy to make improvements to their human capital systems and procedures (Nurhasan, 2017).

Survey "Employee Engagement Among Millennials" by Dale Carneige Indonesia, it was shown that 9% of millennial employees refused to be involved (disengaged) with the company. It is even greater, namely 66% of the millennial workforce is only partially engaged (partially-engaged). Another new fact is that only 1 in 4 millennials are engaged, and 64% of those who are engaged will stay at least a year into the future. Conversely, 60% of millennials plan to resign if they feel disengaged with the company they currently work (Dale Carneige Indonesia, 2016).

The current phenomenon in Indonesia is that the number of millennial generations reaches around 88 million people or 33.75% of the total population of Indonesia (Central Bureau of Statistics Republic of Indonesia, 2017). In the city of Palembang, the phenomenon of the millennial generation reached around 45.4% of the total workforce population in Palembang (Statistik Ketenagakerjaan Badan Pusat Statistik kota Palembang, 2018).

There is a phenomenon that the workforce in Palembang is dominated by the millennial generation. The government as well as business leaders and human resource managers are required to develop a company strategy that is more "millennial" to adapt to the characteristics of the millennial generation to maximize their potential in order to achieve company targets and to retain employees from the phenomenon of turnover intention.

Previous study on millennial generation turnover intention were done by analyzing the influence of work life balance and job satisfaction determinant factors (Nafiudin, 2017). In fact, there are many other factors that have the potential to influence the turnover intention of millennial generation, for example employee engagement. On the basis of this research gap, this study was conducted to analyze the factors of job satisfaction and employee engagement in the Palembang millennial generation analysis. The Palembang city was chosen as the research location because the millennial generation has dominated around 45.4% of the total working age population in Palembang city (Badan Pusat Statistik republic Indonesia, 2018).

Based on the previous background, the research problem formulations in this study are:

1) How does job satisfaction affect the turnover intention of millennial generation in Palembang?



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- 2) How does employee engagement affect the turnover intention of millennial generation in Palembang?
- 3) How do job satisfaction and employee engagement simultaneously influence the turnover intention of millennial generation in Palembang?

The objectives of this study are:

- 1) To analyze the effect of job satisfaction on turnover intention for millennials generation in Palembang.
- 2) To analyze the effect of employee engagement on turnover intention for millennials generation in Palembang.
- 3) To analyze the effect of job satisfaction and employee engagement together or simultaneously on turnover intention of millennial generation in Palembang.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Grand Theory used in this study is the theory of two factors (Herzberg's Two Factors Theory of Work Motivation). This theory was developed by Frederick Herzberg. He uses Abraham Maslow's theory as a reference (Andriani & Widiawati, 2017). According to this theory, Herzberg states that people in carrying out their work are influenced by two factors which are necessities, namely: Hygiene Factors/Maintenance factors including: salary, working conditions, company policy and administration, interpersonal relationships, and quality of supervision. Loss of maintenance factors can lead to dissatisfiers and increased employee attendance and turnover rates. Motivation factors include: achievement, recognition, work itself, responsibility, progress, and growth (Andriani & Widiawati, 2017). In general, job satisfaction is the feeling of supporting or not supporting employees at work. "Job satisfaction is the favorableness or unfavorability with employees view of their work" (Davis & Newstorm, 2011). Job satisfaction is the way an employee feels himself or his job "is the way an employee feels about his or her job" (Yukl, 2010).

Employee engagement was first defined by Kahn in 1990, which is a participatory process that uses all the capacities of workers and is designed to increase commitment to the success of the company as an effort to involve members of the organization so that they can know their role in work. There are three dimensions of employee engagement, namely:

(1) vigour (spirit), is a state that is full of high energy levels and is mentally tough in doing work; (2) dedication, is a feeling of being significant, enthusiastic, inspiring, proud, and challenged. Employees who have significant feelings are employees who have meaning for their existence at work. The purpose of meaning is to give the ability that he has for work. Meanwhile, enthusiasm is a feeling that is full of attention and interest in doing work; (3) absorption (united), is a description of the behavior of employees who pay full attention to work and are involved in a job. Employees who have absorption in work are employees who feel that time flies so fast. These employees feel that they are difficult to separate from work (Schaufeli et al, 2008).

The case of turnover generally begins with turnover intention (Prabowo, 2017). Several factors cause the desire to change jobs (turnover intention), namely: job satisfaction, organizational commitment, fairness in making decisions within the organization, and organizational support (Rekha & Kamalanabhan, 2012). High turnover intention can indicate that the company is ineffective, reduces efficiency and productivity so that it can endanger the company, in the end the company loses employees who already have previous experience and need to train new employees (Joarder et al., 2011). Millennials think that they will quit their current jobs in the next two years (Ivanovic & Ivancevic, 2018). The results of the analysis show that turnover intention increases according to job dissatisfaction. This means that the higher job satisfaction, the less millennial generation wants to change their jobs in the next two years (Ivanovic & Ivancevic, 2018).

The term millennial itself was first created by Neil Howe and William Strauss (2000) in their book entitled *Millennials Rising: The Next Great Generation* (Howe & Strauss, 2000). They found this term



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in 1987, when children born in 1982 entered pre-school. Millennial generation (also known as generation Y) who were born in 1982-2000 (Ali & Purwandi, 2017).

In the aspect of work, Gallup (2016) states that millennials at work have different characteristics compared to previous workforce generations, including:

- 1) Millennials work not only to receive a salary, but also to pursue a goal (something they had previously dreamed of).
- 2) Millennials do not really pursue job satisfaction, but what millennials want is the possibility of developing themselves in the job (learning new things, new skills, new perspectives, getting to know more people, taking opportunities to develop, and so on),
- 3) Millennials do not want bosses who are bossy and controlling,
- 4) Millennials don't want an annual review, millennials want on going conversations,
- 5) Millennials do not think to improve their weaknesses, millennials think more about developing their strengths,
- 6) For millennials, work is not just work but work is part of their life (Gallup, 2016).

In general, the characteristics of the millennial generation can be categorized into two, namely positive and negative characteristics (Oktariani et al., 2017). Eight types of positive characteristics of millennial generation are caring about new technology, likes to experiment, is active, has high creativity, is not afraid of change, has brilliant ideas, smart, and reliable. In contrast, the eight types of negative characteristics of millennial generation are individualistic, easily bored, ego-centric, different, impatient, indifferent, have low commitment and loyalty, and are never serious (Oktariani, et al., 2017).

Based on literature study, the hypothesis of this study are:

- 1) Job satisfaction has a significant negative effect on the turnover intention of millennial generation in Palembang;
- 2) Employee engagement has a significant negative effect on the turnover intention of millennial generation in Palembang;
- 3) Job satisfaction and employee engagement have a significant negative effect together on the turnover intention of millennial generation in Palembang.

### 3. RESEARCH METHODOLOGY

The scope of research

The scope of this research is focused on the analysis and discussion of the independent variable (X), namely job satisfaction (X1), employee engagement (X2), and the effect of those variables on the dependent variable (Y), namely turnover intention. The focus in this study is the millennial generation in Palembang from 20-38 years old (born in 1982-2000).

Data Collection

The data used in this study are primary data, namely data collected directly from the source, in this case the sample of respondents, are the millennial generation in Palembang, from 20-38 years old (born in 1982-2000).

Sample and Population

The population in this study were employees of the millennial generation in Palembang city, they are employees from various kinds of professions at various company and levels, they are from temporary employees, permanent employees to professionals from 20-38 years old (born in 1982-2000) in Palembang. The total estimation is 554,083 employees (Sakernas Badan Pusat Statistik Republik Indonesia, 2017). In this study, the number of millennials generations in Palembang is not certainly known in detail so that the *Lemeshow* formula is used to calculate the required sample size. The estimation in this study ( $p$ ) was 15%, and alpha (sampling error) is 5%.



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The number of samples used in this study were 203 employees/respondents in Palembang with various backgrounds of professions at various company from temporary employees, permanent employees to professionals aged 20-38 years (born in 1982-2000). The sampling technique in this study is non-probability sampling, that is, in this technique every element in the population does not have the same opportunity or opportunity to be selected as a sample.

The method used in selecting samples is purposive sampling, which is the sampling method selected according to certain characteristics so that it is relevant to the research objectives or research problems.

#### 4. RESULTS AND DISCUSSIONS

Respondents in this study were employees of the millennial generation in Palembang city, namely employees from various kinds of professions at various company from temporary employees, permanent employees to professionals aged 20-38 years (born in 1982-2000) in Palembang. There are 203 respondents in this research. This following table is identify the data of respondents involved in this study, such as gender, age, education, working period, employee's status and basic salary.

#### The Result of Research Questionnaire

**Table 1 Data of Respondent**

Variable	Category	Total	Percentage (%)
Gender	Man	84	41.4%
	Woman	119	58.6%
	<b>Total</b>	<b>203</b>	<b>100%</b>
Age (years)	20-23	8	3.9%
	24-27	12	5.9%
	28-30	55	27.1%
	31-34	104	51.2%
	35-38	24	11.8%
	<b>Total</b>	<b>203</b>	<b>100%</b>
Education	Senior High School	8	3.9%
	Diploma	10	4.9%
	S1	98	48.3%
	S2	87	42.9%
	<b>Total</b>	<b>203</b>	<b>100%</b>
Working Period	≤ 2 years	23	11.3%
	3-5 years	34	16.7%
	6-10 years	107	52.7%
	10-15 years	35	17.2%
	≥ 16 years	4	2%
	<b>Total</b>	<b>203</b>	<b>100%</b>
Working status	Temporary employee	30	14.8%
	Permanent employee	173	85.2%
	<b>Total</b>	<b>203</b>	<b>100%</b>
Basic Salary	≤ Rp2.000.000	17	8.4%
	Rp3.000.000 – Rp5.000.000	64	31.5%
	Rp6.000.000 – Rp8.000.000	66	32.5%
	Rp9.000.000 – Rp11.000.000	32	15.8%
	≥ Rp12.000.000	24	11.8%
	<b>Total</b>	<b>199</b>	<b>100%</b>

Source: data output SPSS, 2020



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## Validity test

**Table 2 Validity test of Variable X1: Job Satisfaction**

Job satisfaction				
No	Items	r <sub>count</sub>	r <sub>table</sub>	result
1	X1.1	0,138	0,631	Valid
2	X1.2	0,138	0,656	Valid
3	X1.3	0,138	0,750	Valid
4	X1.4	0,138	0,797	Valid
5	X1.5	0,138	0,775	Valid
6	X1.6	0,138	0,653	Valid
7	X1.7	0,138	0,722	Valid
8	X1.8	0,138	0,729	Valid
9	X1.9	0,138	0,767	Valid
10	X1.10	0,138	0,758	Valid

Source: data output SPSS, 2020

**Table 3 Validity test of Variable X2: Employee Engagement**

Employee engagement				
No	Items	r <sub>count</sub>	r <sub>table</sub>	result
1	X2.1	0,138	0,815	Valid
2	X2.2	0,138	0,853	Valid
3	X2.3	0,138	0,823	Valid
4	X2.4	0,138	0,822	Valid
5	X2.5	0,138	0,711	Valid
6	X2.6	0,138	0,707	Valid

Source: data output SPSS, 2020

**Table 4 Validity test of Variable Y: Turnover Intention**

Turnover intention				
No	Items	r <sub>count</sub>	r <sub>table</sub>	result
1	Y1	0,138	0,826	Valid
2	Y2	0,138	0,625	Valid
3	Y3	0,138	0,851	Valid
4	Y4	0,138	0,631	Valid
5	Y5	0,138	0,888	Valid
6	Y6	0,138	0,804	Valid

Source: data output SPSS, 2020

All statement items in the questionnaire from job satisfactions, employee engagement and turnover intention variables have r count greater than r table, which is greater than 0.138. This shows that all statements from independent and dependent variables above are valid.

## Reliability Test

**Table 5 Reliability Test**

No	Variable	reliability coefficient ( $\alpha$ )	Result
1	Job satisfaction (X <sub>1</sub> )	0,898	Reliable
2	Employee engagement (X <sub>2</sub> )	0,875	Reliable
3	Turnover Intention (Y)	0,867	Reliable

Source: data output SPSS, 2020

Table 5 shows that the reliability coefficient or alpha ( $\alpha$ ) of each variable is more than 0.6, thus we can conclude that all job satisfaction, employee engagement and turnover intention variables are reliable.



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## Normality test

**Table 6 One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		203
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	2.13130702
Most Extreme Differences	Absolute	.052
	Positive	.052
	Negative	-.038
Test Statistics		.052
Asymp. Sig. (2-tailed)		.200

a. Test Distribution is normal

b. Calculated from data

Based on the normality test using the Kolmogorov-Smirnov result, the result is 0.200 which is greater than the significance level of 0.05, it can be concluded that the data is normally distributed.

## Multicollinearity test

**Table 7 Multicollinearity test**

No	Variable	Collinearity statistics	
		Tolerance	VIF
1	Job satisfaction (X <sub>1</sub> )	0,391	2,556
2	Employee engagement (X <sub>2</sub> )	0,391	2,556

Source: data output SPSS, 2020

In Table 7, it can be seen that the tolerance value for the two independent variables is greater than 0.10 and the VIF value is smaller than 10, so there is no multicollinearity in this research.

## Heteroscedasticity test

**Table 8 Heteroscedasticity test with Glejser formula**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.108	.791		2.664	.008
	X1	-.035	.026	-.149	-1.321	.188
	X2	.041	.047	.097	.864	.389

a. Dependent Variable: ABS\_RES

Source: data output SPSS, 2020

If the significance value (Sig.) between the independent variable and the absolute residual is greater than 0.05, there is no heteroscedasticity problem. From the Glejser test results, the significance value of X1 is 0.188 and X2 is 0.389 which is greater than 0.05, so it can be concluded that there is no heteroscedasticity problem in this research.

## Autocorrelation test

**Table 9 Autocorrelation test**

Model Summary <sup>b</sup>						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.911 <sup>a</sup>	.829	.828	2.142	2.117	

a. Predictors: (Constant), X2, X1

b. Dependent Variable: Y



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From the output, the Durbin-Watson (d) value is 2.117 and  $4 - d = 4 - 2.117 = 1.883$  so that it is obtained that  $d > 2$  and  $4 - d > dU$ , so from the result of this test, it can be concluded that the residual is not autocorrelated. In other words, the assumption of autocorrelation is not fulfilled. From the results of the classical assumptions, it is concluded that in this research there is no multicollinearity, the residuals are not autocorrelated, the residuals are not heteroscedasticity, and the residuals are normally distributed.

The Pearson correlation coefficient is significant (presence is significant) if the P-value  $\leq \alpha$  or Sig. (1-tailed)  $\leq \alpha$  with  $\alpha = 0.05$ . Based on the Correlations table output in the first row, all correlation values and p-values are given in the following table:

**Tabel 10 Koefisien korelasi antara variabel dependen dan variabel independen**

Variable	Correlation	p-value
X1 and Y	-0,891	0.000*
X2 and Y	-0,814	0.000*

\*Significant for the significant level ( $\alpha$ ) of 0.05

There is a significant negative correlation so that the relationship between the two research variables (X and Y) is opposite, which means that if the X value increases, the Y value decreases, whereas if the X value decreases, the Y value increases. This condition applies individually to each of the variables X1 and X2 to Y.

### Multiple Linear Regression

**Table 11 Multiple Linear Regression**

Predictor Variable	Regression Coefficient	Error Standard	t-value	p-value
Constant	55,414	1,355	40,904	0,000*
X1	-0,630	0,045	-13,983	0,000*
X2	-0,526	0,081	-6,519	0,000*

\*Significant for the significant level ( $\alpha$ ) of 0.05

From the results obtained a constant value (constant) of 55,414, the regression coefficient of the job satisfaction variable (X1) is 0.630 and the employee engagement variable (X2) is 0.526. From the results of these coefficients, a regression equation can be formed as follows:

$$Y = 55,414 - 0,630 X1 - 0,526 X2$$

From the results of the test output shows that:

1. The constant coefficient value (B) = 55,414 means that if the job satisfaction variable (X1) and the employee engagement variable (X2) do not change (X1 and X2 = 0) then the millennial generation turnover intention (Y) variable is 55,414.
2. There is a significant effect of X1 on Y of -0.630 (negative effect); This means that if there is an increase of 1 unit of the job satisfaction variable (X1), then the turnover intention variable (Y) will decrease by 0.630 or 63% and vice versa if there is a decrease of 1 unit from the job satisfaction variable (X1), then the turnover intention variable (Y) will increase by 0.630 or 63%. In other words, the job satisfaction (X1) variable has a negative effect on the turnover intention (Y) variable.
3. There is a significant effect of X2 on Y of -0.526 (negative effect); This means that if there is an increase of 1 unit of the employee engagement variable (X2), the turnover intention variable (Y) will decrease by 0.526 or 52.6% and vice versa if there is a decrease of 1 unit from the employee engagement variable (X2), then the turnover intention variable (Y) will increase by 0.526 or 52.6%. In other words, the employee engagement variable (X2) has a negative effect on the turnover intention (Y) variable.



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## Analysis of Correlation Coefficient

**Table 12 Model Summary**

Model	R	R square	Adjusted R square
1	,911 <sup>a</sup>	,829	,828

Source: data output SPSS, 2020

From table 12, the results of the correlation coefficient  $r = +0.911$ , which means very strong. This means that the effect of the independent variables on the dependent variable is very strong.

## Analysis of the Coefficient of Determination

Table 12 shows that ( $R^2$ ) is 0.829, which is greater than 0 and close to 1. This shows that the independent variable (X), namely job satisfaction (X1) and employee engagement (X2), can explain the dependent variable (Y), namely turnover intention with the result is 82.9% while the rest ( $100\% - 82.9\% = 17.1\%$ ) was explained by other factors not included in this study. Other factors that can affect turnover intention are organizational commitment, training, organizational support, leadership, organizational climate, compensation, and organizational justice (Hussein Alkahtani, 2015).

## Hypothesis test

Partial test (t test) is a test conducted to see whether an independent variable affects the dependent variable or not by comparing the value of t count with t table. The t test criteria is if t count  $\geq$  t table, then  $H_0$  is rejected and  $H_a$  is accepted, while if t count  $\leq$  t table then  $H_0$  is accepted and  $H_a$  is rejected.

Hypothesis for individual regression coefficients with t test:

$H_0$  : There is no partial / individual effect of variable X1 and X2 on variable Y.

$H_a$  : There is a partial / individual influence effect of variable X1 and X2 on variable Y.

**Table 13**

Model	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
1 (Constant)	55.414	1.355		40.904	.000		
X1	-.630	.045	-.653	-13.983	.000	.391	2.556
X2	-.526	.081	-.304	-6.519	.000	.391	2.556

a. Dependent Variable: Y

The Results:

1. Job satisfaction has a negative and significant effect on turnover intention

The t value of the job satisfaction variable (X1) is -13,983, and the t table value is  $\alpha = 5\%$ , and the value of  $df (n-1) = (203-1 = 202)$ , then  $(5\%; 202)$  is equal to  $\pm 1.65251$ . While the significance value of  $\alpha$  (Sig  $\alpha$ ) is 0,000, which means that  $\text{Sig } \alpha (0,000) < (0.05)$ . Thus, there is a significant effect of the job satisfaction variable on turnover intention of millennial generation, it means that the first hypothesis is accepted.

2. Employee engagement has a negative and significant effect on turnover intention

The t value of the employee engagement variable (X2) is -6.519, and the t-table value is  $\alpha = 5\%$ , and the value of  $df (n-1) = (203-1 = 202)$ , then  $(5\%; 202)$  is  $\pm 1,65251$ . While the significance value of  $\alpha$  (Sig  $\alpha$ ) is 0,000, which means that  $\text{Sig } \alpha (0,000) < (0.05)$ . Thus, there is a significant influence on the



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employee engagement variable on millennial generation turnover intention, it means that the second hypothesis is accepted.

3. Job satisfaction and employee engagement simultaneously have a significant negative effect on turnover intention

The value of F count shows that the variable job satisfaction and employee engagement is equal to 486.032, greater than F table 3.04 at the test level of 0.05 and the level of significance  $\alpha = 0.000$  means  $\alpha < 0.05$ . This shows that the job satisfaction and employee engagement variables simultaneously affect turnover intention, so that the third hypothesis is accepted.

**Table 14**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4459.731	2	2229.866	486.032	.000 <sup>b</sup>
	Residual	917.579	200	4.588		
	Total	5377.310	202			

a. Dependent Variable: Y

b. Predictors: (Constant), X2, X1

### Discussion

The results showed that job satisfaction has a negative and significant effect on turnover intention for millennials generation in Palembang. Purba and Ananta (2018) found a significant negative relationship between job satisfaction and turnover intention on Millennial employees. Research shows that turnover intention increases with job dissatisfaction. Or vice versa, if job satisfaction increases, there will be fewer Millennials who want to quit their jobs in the next two years to Millennials in Serbia (Ivanovic & Ivancevic, 2018). It can be concluded that if job satisfaction increases, the turnover intention of millennial generation in Palembang will decrease and vice versa if job satisfaction decreases, the turnover intention of millennial generation in Palembang will increase.

The results showed that employee engagement has a negative and significant effect on turnover intention of millennials in Palembang. The results of this study are consistent with research by Chrisdiana & Rahardjo (2017) showing that there is a significant negative relationship between employee engagement and turnover intention. It can be concluded that if employee engagement increases, the turnover intention of the millennial generation in Palembang will decrease and vice versa if employee engagement decreases, the turnover intention of the millennial generation in Palembang will increase.

### 5. CONCLUSION

From the results of this study it can be seen that job satisfaction and employee engagement partially and simultaneously have a significant negative effect on the turnover intention of millennial generation in Palembang. The higher the job satisfaction, the lower the turnover intention of millennial employees, the lower the job satisfaction, the higher the turnover intention of millennial employees. And the lower employee engagement variable, the higher the turnover intention of millennial employees and vice versa, the higher the employee engagement, the lower the turnover intention of millennial employees in Palembang.

### LIMITATION AND STUDY FORWARD

This study only focuses on job satisfaction and employee engagement variables. Further researcher can add other variables that can affect turnover intention, including organizational commitment, training, organizational support, leadership, organizational climate, compensation, and organizational justice. Further research may also consider using other research objects other than Palembang, such as sampling from other big cities in Indonesia.



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## BUILDING ON THE IMPROVEMENT OF FINANCIAL PERFORMANCE OF STATE-OWNED ENTERPRISES WITH THE PRINCIPLE OF TRANSPARENCY

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### Abstract

This research wants to see the influence of transparency in improving the financial performance of SOE companies. The research was conducted through a survey in the form of questionnaire questions to employees of SOE companies and subsidiaries of SOEs. From the research obtained that transparency can improve the financial performance of SOE companies and subsidiaries of SOEs. Transparency is the main principle in the implementation of Good Corporate Governance (GCG). Most previous studies have suggested the implementation of GCG can improve the company's performance. Transparency in the company's business activities will grow and increase the trust of stakeholders, not just shareholders. The trust of stakeholders and shareholders is the basic capital in the creation of competitiveness capabilities and improving the company's performance. Transparency in disclosure in the submission of company financial statements especially to shareholders will be very decisive on shareholder decision making and sustainability of the company. The results of this study will encourage companies, not just SOE companies, to prioritize the principle of transparency in the implementation of GCG in order to get a better financial performance of the company.

**Keywords :** *Transparency, GCG, Stakeholders, Shareholders and Financial Performance*

### 1. INTRODUCTION

It is the policy of the Government and Financial Institutions of the world that requires the implementation of Good Corporate Governance (GCG) in companies that manage assets or make large fund turnovers, especially in companies that have gone public on the stock exchange, including state-owned enterprises (SOEs) and their subsidiaries. The implementation of GCG itself is not without obvious reason, where the company is expected by shareholders or owners to benefit and provide the most benefits to shareholders in particular as well as interested parties related to the company by fulfilling the provisions of business ethics and applicable laws and regulations. This is in accordance with the purpose of GCG implementation, then these companies, both private and state-owned enterprises, especially companies that have gone public, make GCG as a tool to improve the company's performance (Bukhori, 2012; Christiawan, 2015; Darwis, 2009; Ernawati, 2010; Lawrence D. Brown, 2004; Purwani, 2010).

GCG implementation is the application of several principles that will create good governance for the company, so that all the company's operational activities run in a structured, orderly, non-conflicting but mutually supportive and reinforcing and in accordance with business ethics including not breaking the law by complying with all applicable laws and regulations. GCG principles applied and used are quite diverse, but more devoted to a few principles only, such as in accordance with the Regulation of the Minister of SOEs No.01 of 2011 on the Implementation of Good Corporate Governance (GCG) in SOE Companies, these principles are often briefed as TARIF (Transparency, Accountability, Responsibility, Independent and Fairness)(Enterprises, 2011). The selection and development of these principles may be, so many versions, as long as the goal is to create good corporate governance, such



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as with the addition of integrity principles, objectivity, hard work, loyalty, etc, including with the new cultural system of the Ministry of SOEs abbreviated to AKHLAK (Amanah, Kompeten, Harmonious, Loyal, Adaptive, and Kolaborative), is also the principles of GCG, so that all GCG principles are universal values that must be corporate culture.

Of the existing GCG principles, the principle of transparency and integrity is the main principle that is the foundation and most dominant in the implementation of GCG, where the principle of transparency is functioned as a value and culture that must be enforced by the company, while integrity must be owned by the individual or human being who runs the company. Transparency comes from a transparent word that means translucent, translucent, or clear. The meaning of transparency is something that has no hidden intent in it, accompanied by the availability of complete information necessary for collaboration, cooperation and collective decision-making. The definition of transparency is a condition in which the rules and reasons behind the regulatory measures are free, clear and open. The word transparency is emphasized more as a form of action or attitude taken by a person or group of people against a party or other person who is interested in something they are doing.

Transparency is urgently needed and required to be carried out within an institution or any public institution that has an interest in the public, it needs to be done as a form of preliminary oversight of any action that has/will be taken within that institution. The objective of transparency related to finance is to prevent corruption and maintain the trust of parties with an interest in an institution / company, while the objective of transparency related to management is to prevent nepotism, collusion and minimize the presence of non-potential labor or fields within an institution / company.

### **2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

The principle of transparency or openness is the main principle in GCG because it is a solution to information problems that must be disclosed by company managers / administrators to the company owner (Beekes, 2014; Fung, 2014; Parum, 2005), including to parties with an interest in the company, so that there are no errors and delays in information, as well as information that is incomplete, because it will have a major impact not only on performance but ultimately on the sustainability of the company (Lynda M. Applegate, 2003; William J. Kettinger, 1994). This is what makes companies that go public, whose shares or ownership are owned by many parties, whose investors are not only from various regions and professions from one country but also more from other countries, so that is the main reason for requiring information which is transparent, continuous periodically and can be accounted for and on time to all shareholders or owners (Abdelmohsen M. Desoky, 2012; Akhtaruddin, 2009; Wendy Beekes, 2016).

The company's performance and sustainability are influenced by several factors, factors that are closely related and very much needed by the company from its owners or shareholders, namely the factor of financial support related to financing and company development which definitely requires additional capital, which if the company makes loans to other parties as well. must be known and approved by the shareholders as owners (Chang & Kuo, 2008; João Maurício Gama Boaventura, 2012; Martínez-Ferrero & Frías-Aceituno, 2015). From here we can see the relationship between the achievement of company performance and the transparency principle of GCG, because to get a good performance needs to be financed with sufficient funding and if it is not enough, the owner will seek additional. Additional capital or loan approval given by the owner to the company at the request of the manager, may be rejected or the loan plan is not approved by the shareholders as the owner, if the owner does not get the right information, is late and incomplete or other disinformation from the



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company manager, even though in in this case the owner has a representative by appointing the Board of Commissioners as supervisor (Hsiang Tsai Chiang, 2010).

When we talk about company performance, in general and in the end we will discuss the company's financial performance as the bottom line for the achievement of company performance. This company performance report is routinely periodically, at least every month it is reported to shareholders or owners, through or without going through the Board of Commissioners, for those through the Board of Commissioners as supervisor, the performance report must be accompanied by comments and recommendations regarding the achievement of this performance. This company report, the core of the report is on the company's financial performance, must be reported in a transparent manner (D. Eric Hirst, 1998; Sharon M. Livesey, 2002), if not, the responses and recommendations of the board of commissioners will be biased and not on target, including the responses and decisions to be taken by the shareholders / owners will be wrong.

There have been many examples of managers manipulating the company's financial performance reports, which are now more familiar with the term window dressing or the term financial statements have been dressed and beautified, which are actually bad to become good, whose performance has decreased to appear to be achievement, which will eventually result in the fall and bankruptcy of the company, as has happened to major companies in the world, especially in the United States, such as Enron and Worldcom. The act of manipulating or more subtly is called window dressing, is an act that does not reveal actual information related to company finances to shareholders or owners including to regulators (the government) (Jonada Mamo, 2014; Nadia Smaili, 2009), which we refer to as not transparent, so it is not in accordance with the principles of implementing GCG and also is a fraud (Hu, Dou, & Wang, 2019; James L. Bierstaker, 2006). The result of this action will eventually lead to the collapse and bankruptcy of the company, where previously the company's financial performance report seemed to be good, increased and not problematic, but behind that, the actual condition of the company's (financial) performance was bad, was decreasing and having problems (Abdo & Fisher, 2015).

The above matters make the principle of transparency important in disclosing information related to company financial performance reports (Augustine, 2012; Mohd Hassan Che Haat, 2008), which shows the importance of GCG for a company. Beyond the disclosure of information related to the company's financial performance reports, there are many more reports and other information related to the company's operational activities that must be reported, although the disclosure of the information may not be as important as the company's financial performance report. In accordance with the implementation of GCG, stakeholders (interested parties in the company), not only shareholders as owners, but there are other parties who are also interested in the company, ranging from employees, governments (local and central), suppliers, business partners and environmental communities, so that there are certain information required by such interested parties (Collins G. Ntim, 2011). For example, local and central government, in addition to the amount of dividends, more importantly, which is related to the amount of tax that should be paid and paid to the government, and this concerns a lot of data and information that should be known to the government, so that if the company is not transparent, and accountable, it will reduce the deposit or excess deposit, resulting in the error of tax deductions and tax relief applications, even provisions that violation other tax rules, which not only harm the government but also for the company.



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It becomes very clear the role and influence of the transparency principles of GCG, which will create good corporate governance for the company in every activity and business activity of the company (Abdelmohsen M. Desoky, 2012; Beekes, 2014; Fung, 2014; Hiroyuki Aman, 2017). The same will also be experienced and needed by other stakeholders, in addition to those exemplified above, such as the disclosure of information related to the tender procurement of goods and services, which must be known by partners and suppliers, so as not to raise suspicion and prejudice badly to the company, and will create and create a good image for the company, all of which benefit the company and can ultimately be improve the financial performance of the company.

Assessment of the role and influence of transparency principles of GCG, included in the GCG assessment as one of the aspects assessed, conducted every 2 (two) years by an independent assessor, while in the interval period of 2 (two) years is evaluated the implementation of GCG in a self assessment. The assessment of the importance of transparency principles or aspects is shown in the Decree of the Secretary-General of the Ministry of SOEs No.16 of 2012 on Indicators/Parameters of Assessment and Evaluation of The Implementation of Good Corporate Governance in State-Owned Enterprises (SOEs)(SOEs, 2012), which is summed up in the form of the table below.

**Table 1. Structure and Weighting indicators/parameters of SOE GCG Assessment**

Assessment Aspect	New (SK-16/2012)				Old (Kepmen-117/2002)		
	Indicator	Parameter	Weights	CTF	Indicator	Parameter	Weights
Commitment to Sustainable Implementation of GCG	6	15	7	47	3	9	10
Shareholders and GMS / Capital Owners	6	25	9	68	10	31	9
GCG Policy	-	-	-	-	2	14	8
Board of Commissioners/Supervisors	12	43	35	167	19	50	33
Board of Directors	13	52	35	202	13	51	33
Disclosure of Information and Transparency	4	16	9	76	3	5	7
Other Aspects	2	2	-	12	-	-	-
<b>TOTAL</b>	<b>43</b>	<b>153</b>	<b>95</b>		<b>50</b>	<b>160</b>	<b>100</b>

CTF = Conformity Test Factor

Source : Decree of the Secretary General of the Ministry of SOEs No.16 in 2012

From the table, information is obtained that the contribution of the Information Disclosure and Transparency aspect takes a contribution portion of 9.3% on indicators, 10.5% on Parameters, and 13.3% on Conformity Test Factor, with a weighting of 9% of the Total 100%.

In addition to GCG assessment using the Decree of the Secretary General of the Ministry of SOEs No.16 of 2012 on Indicators/Parameters of Assessment and Evaluation of the Implementation of



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Good Corporate Governance in State-Owned Enterprises (SOEs), the role of aspects /principles of transparency becomes more importantly in the GCG assessment using the ASEAN Corporate Governance Scorecard (ACGS) format, introduced in 2011 by the ASEAN Capital Markets Forum (ACMF) to assess the application of GCG to public companies listed on stock exchanges in ASEAN countries ((ACMF), 2015). The ACGS assessment uses 2 (two) levels or levels, namely level-1 and level-2, with details such as table 2 below :

**Table 2. Composition and Structure of Level-1 Assessment**

Level-1	Number of Questions	Weight (as a % of total Level-1 score)	Maximum Attainable Score
Part A : Rights of Shareholders	25	10	10 points
Part B : Equitable Treatment of Shareholders	17	15	15 points
Part C : Role of Stakeholders	21	10	10 points
<b>Part D : Disclosure and Transparency</b>	<b>40</b>	<b>25</b>	<b>25 points</b>
Part E : Responsibilities of the Board	76	40	40 points

Source : ASEAN *Corporate Governance Scorecard : Country Reports and Assessments* 2013–2014

In the level-2 or level-2 assessment of ACGS, consists of 2 (two) things, namely bonuses that are activities, procedures and or programs carried out by the company that impact on strengthening the implementation of GCG, and the second, namely penalties that are mistakes made by the company in its business processes, thereby weakening the implementation of GCG, with the composition and structure shown in table 3 below :

**Table 3. Composition and Structure of Level-2 Assessment**

Level-2	Number of Questions	Maximum Score (points)
Bonus	9	42
Penalty	21	(53)

( ) = negative

Source : ASEAN *Corporate Governance Scorecard : Country Reports and Assessments* 2013–2014

Table 2 shows that part D is disclosure and transparency or openness has 40 (forty) questions out of 100 (one hundred) questions or contributes 25% of the total score of 100%. Fulfillment or score on the implementation of GCG is obtained from the large number of fulfillment criteria, indicators, parameters and conformity test factors in the form of questions.

### Hypothetical Development

The principle of transparency has not been used as a means and tool in improving the company's financial performance, but is still considered a requirement and or part of the implementation of GCG, so the role and influence of transparency does not appear to be a major factor in improving the company's financial performance. In accordance with the results of previous research, obtained is the application of GCG which is a factor in improving the performance of the company, so in this study want to be shown the role and influence of transparency in improving the financial performance of the company.



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### 3. RESEARCH METHODOLOGY

In order to test and prove the effect of transparency on improving the company's performance, a survey has been conducted in the form of questionnaires on the implementation of the principles of transparency and disclosure of information as part of the implementation of GCG in State-Owned Enterprises (SOEs) and subsidiaries of SOEs. Questionnaires in the form of questions are submitted through the google forms application, with respondents of so-called SOE employees and subsidiaries of SOEs. The questions are given as many as 10 (ten) questions, related to transparency in the annual report in which the company's financial statements are contained, and the procedures and activities of the Company's activities reflecting the implementation of transparency in the Company, with multiple choice answers of 5 (five) options. Furthermore, to assess the accuracy of questions given in the questionnaire, a validity test is conducted, while to assess the consistency of the question is carried out reliability test, with the help of SPSS application.

#### Validity Test

Validity is an index that shows the measuring instrument actually measures what it wants to measure (Messick, 1990). Questionnaire answers or surveys with 10 (ten) questions given, the results are modulated and given a weighted value, to then be carried out a validity test to find out if the question asked is valid or not, by looking at the amount of deviation from the choice of answer conducted by each respondent. The question question is said to be valid when  $r$  Count is greater than  $r$  Table and vice versa is declared invalid when  $r$  Count is less than  $r$  Table (Greener, 2008; Sekaran & Bougie, 2016). Table  $r$  values are obtained from Table R Value Distribution with 5% Significance at  $N = 105$ , where  $N$  is the number of respondents, while the value  $r$  Count is obtained through Pearson correlation calculation formula that has been programmed in SPSS application. Validity test results against the 10 (ten) questions, recapulated in the table below :

**Table 4. Validity Test Results on Question**

Questions	$r$ Count	$r$ Table (5%)	Description
Question Number 1	0,495	0,191	Valid
Question Number 2	0,810	0,191	Valid
Question Number 3	0,746	0,191	Valid
Question Number 4	0,808	0,191	Valid
Question Number 5	0,665	0,191	Valid
Question Number 6	0,833	0,191	Valid
Question Number 7	0,777	0,191	Valid
Question Number 8	0,561	0,191	Valid
Question Number 9	0,562	0,191	Valid
Question Number 10	0,528	0,191	Valid

#### Reliability Test

Furthermore, reliability test is carried out to find out the consistency of the choice of answers from each respondent. Reliability is an index that shows how much a gauge can be trusted or relied upon (Sekaran & Bougie, 2016). This shows the extent to which the measurement results remained consistent when performed twice or more against the same symptoms, using the same measuring instrument. Measuring instruments are said to be reliable if they produce the same results despite repeated measurements. Question questions are expressed reliable or consistent when the Alpha Cronbach value is greater than  $r$  table and or greater than 0.7, whereas it is declared un reliabel or inconsistent when the Alpha Cronbach value is smaller than  $r$  table and or less than 0.7 (Greener, 2008; Sekaran & Bougie, 2016). The Alpha Cronbach value is obtained through a programmatic



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statistical calculation formula in the SPSS application. Reliabelitas test results against 10 (ten) questions, recapitulation in the table below :

**Table 5. Reliability Test Results on Question**

Questions	Alpha Cronbach	r Table (5%)	Description
Question Number 1	0,866	0,191	Consistent
Question Number 2	0,841	0,191	Consistent
Question Number 3	0,848	0,191	Consistent
Question Number 4	0,843	0,191	Consistent
Question Number 5	0,865	0,191	Consistent
Question Number 6	0,839	0,191	Consistent
Question Number 7	0,845	0,191	Consistent
Question Number 8	0,862	0,191	Consistent
Question Number 9	0,862	0,191	Consistent
Question Number 10	0,864	0,191	Consistent

Overall, the 10 (ten) question questions presented in the questionnaire had an Alpha Cronbach value of 0.867 greater than the table's r value and or greater than 0.7, so the combined 10 (ten) questions were declared reliable or consistent.

#### 4. RESULTS AND DISCUSSIONS

The survey results from the questionnaire, obtained by 105 respondents from employees of SOEs and subsidiaries of SOEs, whose biggest respondents came from the work units of Governance, Risk Management, Management System and Corporate Planning. Next each answer option A is given a value of 1, B is given a value of 2, C is given a value of 3, D is given a value of 4 and E is given a value of 5. Then the value is totaled for each respondent as a total score. The scores of each respondent are grouped into 3 (three) groups or categories, namely as in the table below :

**Table 6. Score Category of each Respondent**

Score	Category	Number of Respondents By Score Category
10 – 23	Not Transparent	3
24 – 36	Not Yet Transparent	8
37 - 50	Already Transparent	94

From the questionnaire results, after being modulated, 94 respondents or 89.52% rated the implementation of the principles of transparency and disclosure of information in soe companies and subsidiaries of SOEs already transparent, 8 respondents or 7.62% rated as not transparent and 3 respondents or 2.86% rated as not transparent. In accordance with the questionnaire results, it is concluded that the application of the principle of transparansi and disclosure of information as the main principles in GCG has been applied to the company's activities and activities not only in relationships with shareholders, but also in relationships with stakeholders.

Testing and proof that the principle of transparency of GCG affects the improvement of the company's performance, shown in the respondent's answer to question number 10, namely: what is the principle of transparency of the Implementation of Good Corporate Governance (GCG) in the Company can



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improve the performance of the Company ? The recapitulation of the respondent's answer results can be seen in the table below :

**Table 7. Recapitulation of Respondent's Answer to Question Number 10**

<b>Respondent's Answer</b>	<b>Number of Respondents</b>
1. Cannot improve the Company's performance	0
2. Has not been able to improve the Company's performance	3
3. May improve on a small part of the Company's performance	4
4. Can improve on most of the Company's performance	81
5. Can improve the entire performance of the Company	17

Of the respondents' answers, 17 respondents or 16.19% answered that transparency can improve the company's performance, 81 respondents or 77.14% answered transparency can improve on most of the Company's performance, and 4 respondents or 3.81% answering transparency can improve in a small part of the Company's performance, so that respondents who answer that transparency can improve the company's performance by 102 respondents or 97.14%, while 3 respondents or 2.86% answer transparency can not improve the company's performance , and no respondent answering transparency could not improve the company's performance. The conclusion is that transparency can improve the company's performance, at least in some of the company's performance.

There is a positive correlation and alignment between the implementation of GCG and the improvement of the company's financial performance, there is also an indirect correlation between the principle of transparency and improved financial performance of the company. In companies that have gone public on the stock exchange, the stock value of a company is positively correlated with the results of the company's GCG valuation score, which is dominated by the company's transparency policy, which will further increase the trust of the owner or shareholder in the company's performance. The implementation of GCG is believed to form a cycle to increase the value of the company especially in the eyes of public investors (Sukamulja, 2004). With GCG, public investors get assurances that funds invested into the company will be well managed and the interests of public investors will be safe (Sukamulja, 2004).

GCG implementation ratings in the company have a positive impact on investor confidence to invest which will automatically increase the return of shares (Estu Widarwati, 2015). In essence GCG has a significant positive influence on the value of the company (Juniarti, 2013).

### 5. CONCLUSION

From the discussion description above, related to the influence of the principle of transparency and disclosure of information as an important part in the implementation of GCG, on improving the financial performance of the company, it can be concluded the following :

1. From previous research, there has been a lot of research on the influence of indicators and or variables of GCG related to supporting organs in a company, such as audit committees, risk management committees, internal auditors, and external auditors, as well as related to the number of commissioners, the number of shareholdings, and independent commissioners, to the improvement of the company's performance, including the improvement of the company's financial performance, which generally gives a positive influence.
2. Previous transparency research, generally examining the effect of transparency on governance and vice versa, as well as the influence of transparency and governance relationships on variables or



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other indicators such as stock performance and value, but has not examined the influence of direct transparency on the company's performance and stock value.

3. From the results of this study obtained that transparency has an influence that can improve the performance of the company, including the financial performance of the company, through increasing the trust of stakeholders first.
4. Transparency as the main principle of GCG applied to SOEs and subsidiaries of SOEs, can encourage the improvement of the performance of SOE companies and subsidiaries of SOEs, including financial performance.
5. This research aims not only to examine the influence of transparency on the performance of SOE companies and soe subsidiaries, but also to examine other GCG principles such as accountability, responsibility, independence and fairness, both independently and together towards improving the performance of SOE companies and SOE subsidiaries, including when influenced by other indicator variables.

### LIMITATION AND STUDY FORWARD

This research is limited to the implementation of GCG in STATE-owned enterprises and subsidiaries of SOEs, in accordance with the Regulation of the Minister of State-Owned Enterprises Number: PER-09/MBU/2012 on Changes to the Regulation of the Minister of State-Owned Enterprises Number: PER-01/MBU/2011 on The Implementation of Good Corporate Governance (GCG) in SOE Companies (Enterprises, 2012). Further research studies are conducted on other GCG principles, such as Accountability, Responsiveness, Independent and Fairness, or principles that support better corporate governance, such as integrity, trust, cooperation and others, whether it also has a significant influence on improving financial performance and the value of corporate shares.

### ACKNOWLEDGEMENT

This research was conducted in order to deepen and strengthen the role of the principle of transparency as the most important part in the implementation of GCG, while strengthening the government's belief through the Ministry of SOEs and other stakeholders, that the good or bad implementation of the principle of transparency is reflective of the good or bad implementation of GCG in a company. This research was conducted by the author himself, by utilizing experience as the head of the work unit or Corporate Governance Manager at PT Pupuk Sriwidjaja Palembang, and if in the research there is a cost, then the author finances himself.

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## HUMAN CAPITAL, SOCIAL CAPITAL, WAGE AND PROSPERITY: FORMAL WORKER CASES

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### Abstract

**Purpose:** The relationship between human capital and social capital to prosperity is an issue analyzed in this paper. Human capital and social capital are among the factors in capital assets predicted to affect well-being in the short term.

**Research Methodology:** Respondent as many as 400 Small and Medium Enterprises (SMEs) workers are domiciled in Palembang, especially The districts of Sukarami, Ilir Barat I, Kalidoni, Seberang Ulu I and, Seberang Ulu II. The analysis is done qualitatively descriptive and path analysis.

**Results:** The results showed the minimum and maximum income of Rp. 500,000 - Rp. 7,500,000 with an average of Rp. 1,903,042. Though, they have been able to meet their subsistence need shown by the increasing proportion of non-food expenditure on foodstuffs. The direct relationship between human capital and social capital and income results is significant using path analysis, also an indirect effect on income through wages as an intervening variable.

**Limitations:** This research did not use all variable capital assets. The respondents were only formal workers in small and medium enterprises.

**Contribution:** This research is to provide input on the prosperity policies improvement of human and social capital of the formal worker

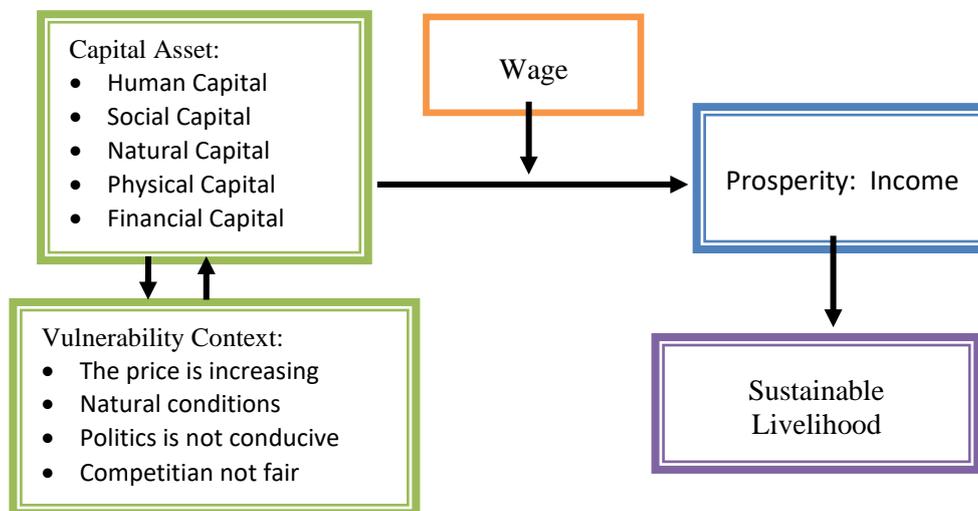
**Keywords:** Prosperity, Human Capital, Social Capital, Wage

## 1. INTRODUCTION

The problem of prosperity is urgent for every individual, family, or community because it is related to sustainable livelihoods (Joseph & Mensah, 2013). The capital assets owned and the individual vulnerability faced is the ability to achieve sustainable livelihoods (Kébé & Muir, 2008).

Five components of capital assets related to sustainable livelihoods are human capital, social capital, natural capital, physical capital, and financial capital (H. Li et al., 2020). The influence linkages between components need to pay attention to the vulnerability context. The short-term effects of Sustainable Livelihood are human and social capital. The natural, physical, and financial capital of each individual assume to have long-term effects because currently unchanged (UNDP, 2013).

Vulnerability context will not affect capital assets because (N. T. Muhyiddin & Miskiyah, 2017) : (a) as workers, they do not have the power to cope with price fluctuations, (b) natural conditions when this research was conducted did not occur shocks which caused workers not to work, (c) there was no direct influence on the political situation, and (d) there is no competition between workers and if there is a competition between employees it also does not have a direct impact on workers. Thus, the vulnerability context is assumed to be *ceteris paribus*. The relationship between capital assets and prosperity is through the wages received by workers. Prosperity is measured by the level of income received (research framework in Figure 1).



**Figure 1. The Research Framework**  
Source: processed from research, 2020

The household head's in Palembang has an average income of IDR 2,185,575, with IDR 7,28,525 per month. They are less able to meet fewer primary needs, as well as secondary and tertiary. Due to low self-empowerment, even being unable to make breakthroughs to help oneself out of poverty, such as moving old businesses to new businesses ( et al., 2016)(N. T. Muhyiddin & Miskiyah, 2017). Another factor that causes worker poverty in Palembang is low human capital, which is indicated by the low level of education they have. Also, social capital is because they are unable to find access to work links outside their community (O. Muhyiddin et al., 2018)(N. T. Muhyiddin et al., 2017).

Based on this background, the problem formulation of this research is to analyze the effect of human capital, social capital, and wages on the welfare of formal workers in small and medium enterprises (SMEs). The welfare indicator used is the total household income of the worker.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Human Capital

Human capital is a combination of knowledge, skills, innovation, and the ability of a person to carry out his or her duties to create a value to achieve the goal. Human capital arises as a result of shifting the role of human resources in the organization from as a burden to an asset /capital (Afzal, 2012).

The main components of complementary human resources are initial abilities (whether acquired or innate) and skills gained through formal training education in the workplace. Human resources differ from other assets because the market only generates returns in proportion to labor supply. Human resource stocks predominantly determine individual income. There are two streams of human capital literature. The first is that estimating human capital investment relates to the internal rate of return, and the second relates to lifetime earnings. One faces a trade-off between generating additional human capital and renting out existing human capital stock to the labor market (Personal et al., 2009).

### Social Capital

Social capital at the macro-level is a step where social capital is utilized in a wider scope. At this level, the use of social capital includes, such as government, enforcement of civil law certainty, political freedom, impact on the economic achievement of a country, the determination of a



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government function, and the type of economic development of the public sector. Concerning the public sector government involvement that is constructive development under the imbalance between external social capital bonds and internal integrated news is indispensable (Y. Li et al., 2015)

Social capital at meso-level is described as a structural perspective where social capital networks are structured and resources flow throughout the work network. This social capital analysis is in the process of developing network structure and distribution (Guber, 2019) .

This micro-level social capital level emphasizes the ability of individuals to deploy resources through local networking institutions such as social organizations based on kinship. Many experts emphasize micro-levels on an organization related to recognition, co-operation, and cooperation, solidarity, integration, reputation, and access to informative information (Chou & Chow, 2009).

### **Wage**

Wages are the payment or price provided by the employer to the worker. Wages given based on work results (per day or weekly). Wages are compensation in the form of materials (money), while non-material forms of compensation expressed as non-wage compensation, among others: the provision of facilities, meal money, and transport money, training that can support a career. Wages also raise income for workers in the 'non-labor income' category. Wages in various business activities 'should' based on the minimum wage stipulated by the government (McConnell et al., 2017).

There are several theories of natural wages, iron wages, marginal revenue productivity, discrimination wages, hedonic wages, and minimum wage. The mechanisms of demand and labor supply in the market are natural wages. The natural wage theory put forward by David Ricardo (1950), and this theory states that the wage variable consists of "natural wages" and "market wages". A natural wage is a wage used as a reference for a worker's life. Market wages or market prices of labor will always, or almost always, tend toward the minimum required for a worker's livelihood (Ehrenberg, 2009).

The minimum wage is a wage set by government regulations based on research conducted by the employment board with the employment office. According to the ILO (International Labor of Organization), the minimum wage as the minimum wage required employers to pay the recipient of wages for work done during a certain period that cannot be reduced by mutual agreement or individual contract (International Labor if Organization, 2014).

Setting the minimum wage aims: (a) maintaining job growth and economic growth, (b) protecting workers' income levels and living standards, (c) maintaining labor purchasing power. Referring to this goal, it is common for minimum wage recipients to have peace of mind. But some have questioned that the minimum wage is not strong enough to maintain workers' purchasing power. Therefore, it is necessary to classify whether the minimum wage is below or above the market wage (actual wage) so that it can be known the positive and negative impact of the set minimum wage (N. T. Muhyiddin & Miskiyah, 2017).

If the minimum wage is below the market wage, then there is an excess of demand (demand greater than supply). Conversely, the minimum wage is above the market-wage benefits society. Because with high wages, workers will have more motivation than ever before, and will further increase productivity. On the employers' side, raising the minimum wage will make employers take actions that harm workers, such as reducing the number of workers (Mārginean & Chenic, 2013).

### **Prosperity**

GDP (gross domestic product) has always been the benchmark in aggregate economic activities, and can also be used to measure social well-being. But there is a weakness in GDP in measuring prosperity:



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- a) GDP does not include any prosperity measures. GDP only represents the value of all finished goods produced over a certain period. GDP is only a proxy for measuring well-being.
- b) GDP only covers market transactions no matter what domestic work or voluntary work is. This activity has a considerable positive impact on social welfare which has an impact on improving living standards.
- c) GDP does not represent income distribution inequality. The relatively even distribution of income represents better social welfare. While this is not covered in GDP.
- d) GDP does not describe what is being produced. Measuring the value of all finished goods and services in an economy, and does not detail whether the products included in the GDP calculation harm social prosperity, such as drug products.
- e) GDP ignoring welfare externalities is an indicator that BPS uses to look at the level of livelihood sustainability by using family income indicators and proportion indicators of food and non-food consumption. If a family's income increases, either prosperity. If the proportion of non-food consumption greater than the food consumption means the family has no longer been bothered pursuing food needs, and further means the family is experiencing increased well-being.

So the prosperity measurements in this study used household total income variables. The income measurement in research is through the total income of all family members of the formal working family of small and medium enterprises.

### Hypothesis

Piachaud's (2002) research found that there are five capitals needed to build an economy, namely human capital, social capital, financial capital, natural capital, and physical capital. But poverty often occurs due to a lack of knowledge, technical progress in industry, and externalities of information in society. There is a relationship of human capital and social capital on income.

Juwita et al (2017) research found that gender, education, insurance, training and status had positive and significant effect on performance, either income. Age had positive but not significant effect, the increased age would decrease performance. Working period had negative but not significant effect on performance, the short working period would decrease performance.

Efrianti et al., (2018) research found that the relationship between economic growth and unemployment support the Okun's law. The same applies to the relationship between economic growth and poverty when the trickle-down effect was happened in the analysis period.

So based on the results of the previous study, this study formulates a temporary hypothesis as follows;

- a) There is a relationship between human capital and social capital on wages
- b) There is an effect of human capital and social capital through intervening wages against income

### 3. RESEARCH METHODOLOGY

#### Research site

This research was conducted in five districts in Palembang, among others are Sukarame Sub-District, Ilir Barat I Sub-District, Kalidoni Sub-District, Seberang Ulu I Sub-District, and Seberang Ulu II Sub-District. The selection of these five sub-districts is based on the population density in Palembang.

#### Population and sample

The population in this study was formal sector workers working in SMEs (Small and Micro Enterprises) as many as 400 respondents, residing in 5 sub-districts: Sukarame, Ilir Barat I, Kalidoni, Seberang Ulu I and Seberang Ulu II.



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## Data type and sources of data

The data used is cross sectional data, which is sourced from primary studies through interviews. Cross sectional data is data collected by observing various subjects such as (individual, country, region,), at the same point in time. Cross sectional data is analyzed by comparing differences in subjects (Gujarati, 2004). Primary data is data taken using certain instruments and the results cannot be generalized, only can describe the situation at that time through interviews or questionnaires (Cleff, 2019).

## Path Analysis

The path analysis method developed by Sewell Wright in the 1930s is a method that examines the direct and indirect effects of the hypothesized variables as a result of the effect of treatment on these variables. These effects are reflected as path coefficients which are actually standardized regression coefficients (i.e.  $\beta$ ), where Y is income, CA consists of human capital and social capital and W is wage: These effects are reflected as path coefficients which are actually standardized regression coefficients (i.e.  $\beta$ ), where Y is income, CA consists of human capital and social capital and W is wage:

$$Y = \beta CA + \mu W + e \dots \dots \dots (1)$$

The assumptions for path analysis are: (a) There is a linear, causal and additional relationship between variables, (b) all errors are uncorrelated with other models, (c) there is only a one-way causal relationship in the model, (d) measuring variables using a scale intervals,  $\epsilon$  the observed and measured variables without any errors, and (f) the model is assumed to be appropriately, by including all causes into the model. The path analysis formula and its assumptions in this study are as follows:

$$Y = \rho_{YHC}HC + \rho_{YSC}SC + \rho_{YW}W + \epsilon \dots \dots \dots (2)$$

where Y is income, HC human capital, SC is social capital, W is wage, and  $\rho$  is the path coefficient.

Path analysis methods have direct and indirect influences. Direct influence is the direction of the relationship between two direct variables without passing another variable, while indirect influences must pass another variable. The magnitude of direct influence between variables by using a standardized coefficient of beta or regression coefficient. While the amount of indirect influence in the path analysis is by multiplying the direct coefficient of variable effect free to bound variables.

## 4. RESULTS AND DISCUSSIONS

### Description Analysis

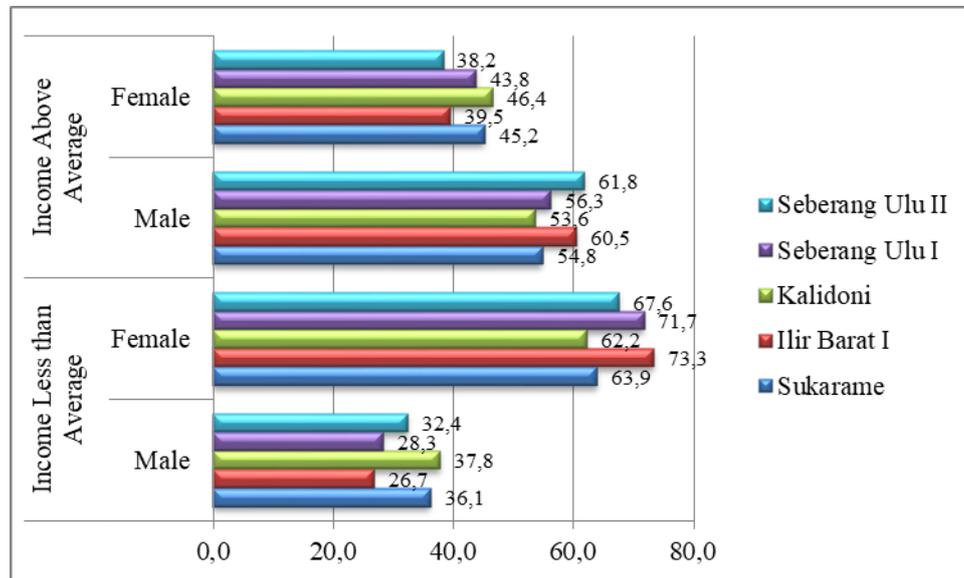
The results of the study found that the family income range was very large between IDR 500,000 and IDR 7,500,000, with an average income of IDR 1,903,042. In general, income is below average, around 63%, in all district (Table 1). The average income in this study is very low if it is related to the UMP of South Sumatera in 2020 amounting to IDR 3,043,111 and Palembang City Minimum Wage in 2020 of IDR 3,165,519. However, when compared with the income received by class 2a civil servants with a 0-year working period of IDR 1,845,000 (2020 conditions), the average income of IDR 1,903,042 is relatively good, although it is still far from the UMK Palembang standard.

Table 1 Above and Below average income in 5 districts in Palembang (%)

No	District	$\geq$ Average Income	$<$ Average Income	Respondents
1	Sukarami	30,1	69,9	103
2	Iilir Barat I	45,8	54,2	92
3	Kalidoni	38,4	61,6	73
4	Seberang Ulu II	52,1	47,9	70
5	Seberang Ulu I	25,8	74,1	62
Total		37,04	62,95	400

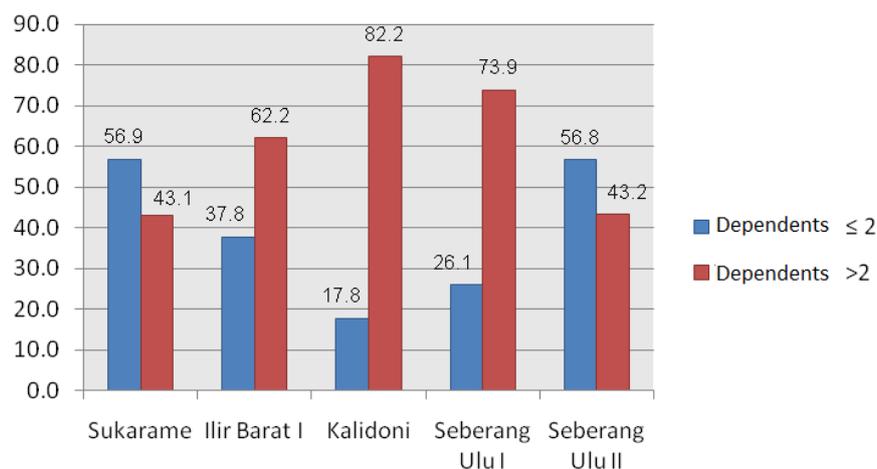
Source: Research Results, 2020

The data shows female workers dominate less than average incomes (Figure 2) and most in Seberang Ulu I Sub-District: 80.65 percent, in Sukarame Sub-district: 76.67 percent and Kalidoni: 70 percent. While male workers have less than the highest average income, Seberang Ulu District I: 61.1 percent, Sukarame Sub-District: 60.47 percent, and Kalidoni: 57.14 percent.



**Figure 3. Percentage of Income Based on Gender**  
Source: Research Results, 2020

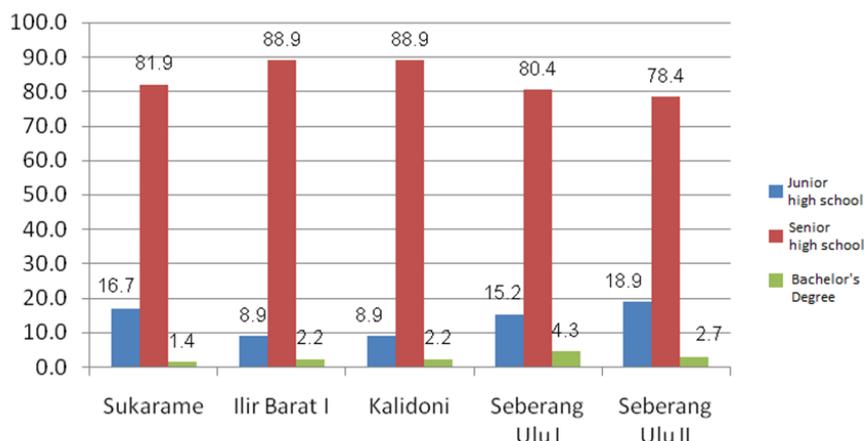
Comparison on the basis of wages received to see the level of welfare, is less relevant. Because the size of being prosperous or not is not only seen from the material size but also non-material. This is shown in Figure 4 that those with below average income are still able to have more than 2 dependents without compulsion. The extended family is more of a choice than the nuclear family. The reason put forward is that they can help each other in living life, especially during the Covid-19 pandemic can help children's lessons online when their parents are working. Another reason is that they feel better still working amidst this pandemic than when they are unemployed.



**Figure 4. Percentage of Income Less Than Average Based on Dependents**  
Source: Research Results, 2020

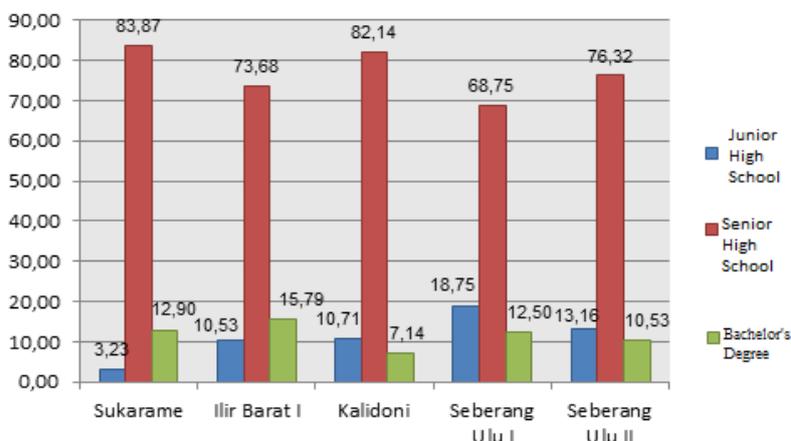
In terms of the education completed, around 79% -90% of those with below average income can complete SMA / SMK education (Figure 5). With this level of education they can still get job

opportunities as laborers, shopkeepers and entrepreneurship. Meanwhile, those with an above average income with a D3-S1 education are relatively more than those with below average income (Figure 6). This group can enter employment opportunities as professionals, leadership personnel, or executive officers. This means they have a greater chance of getting a type of job that requires high skills.



**Figure 5. Percentage of Income Less Than Average by Education**

Source: Research Results, 2020



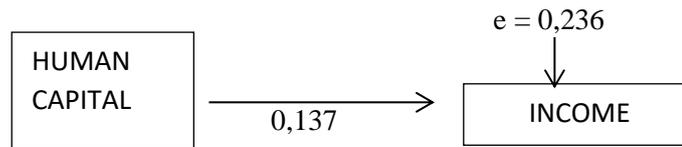
**Figure 6. Percentage of Income Above Average Based on Education**

Source: Research Results, 2020

## Path Analysis

### Human Capital and Income

In this study, human capital is measured by education, while education is not the only variable for the formation of human capital, other variables are health and migration. The health variable, according to Ananta (1982) includes education, Ananta's opinion is based on the argument that the level of education can be completed if someone is in good health. The education indicator used the length of school, the regression results show that the effect of human capital on income is 76.4 percent ( $R^2$ : 0.764), and 23.6 percent by other variables (exogenous). The relationship between exogenous variables and income can be seen in the path diagram (Figure 6).



**Figure 7. The Path of Human Capital and Income**  
Source: Research Results, 2020

**Table 2. The coefficient and significance of the model can be seen as follows**

Variabel dependent	Variabel independent	Standar Coefisien Beta	t-hit	Sig	F-hit
Pendapatan	Human Capital	0,137	2,737	0,006	7,492

Source: Research Results, 2020

The relationship between human capital and income is significant ( $0.006 < 0,05$ ). The beta coefficient of 0.137 shows that the length of school is increases 10 times, so the income will increase 1.4 times. Furthermore, statistically, the t-table value of 1.966 is smaller than the t-count of 2.737, meaning that  $H_0$  is rejected. While testing the suitability of the model, the F-count is 7,492 greater than the F-table value of 2.68, meaning that the  $H_0$  hypothesis is rejected, so there is an effect of human capital on income and is positively related.

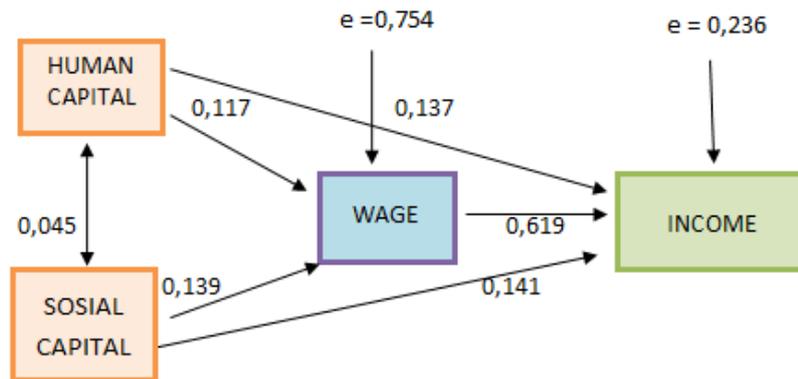
**A. Human Capital and Wage**

The effect of human capital on wages is only 20.5 percent. R square human capital-wages are smaller than R square human capital- income. It needs to be informed that wages are the results received per month as remuneration for working time while income is family income. In this study, the wage ranges from Rp. 300.00 - Rp. 3,500.00.00 with an average of Rp. 2,100,000.00.

The regression results for human capital and wages show: (1) the significance value of 0.017 is greater than the error rate of 0.05 (5%), (2) the beta coefficient is 0.117 which means that if the length of school increases 10% then wages will increase by 1,17%, (3) ) the path coefficient is 0.795, which means that the relationship between exogenous variables and wages is 79.5%.

**B. Social Capital, Income and Wage**

Social capital indicators in this study consist of: (a) the influence of the work environment, (b) place of residence, (c) alumni, and (d) other social indicators such as recitation, hobbies. To test the effect of social capital on income, 3 indicators (a), (b), and (c) are used. Among these 3 (three) indicators, residence contributes 50% to social capital and 25% to the influence of the work environment and 25% is an indicator of alumni together with indicators of recitation and hobbies.



**Figure 8. The Path Analysis**  
Source: Research Results, 2020

Social capital variables were obtained using Likert data where the answers to each variable consisted of: very dissatisfied (1), not satisfied (2), quite satisfied (3), satisfied (4) and very satisfied (5). Data with 5 answers is ordinal data transformed into intervals, with the results shown in Appendix 1. The value of R square of social capital for income is 0.19 and for wages 0.20. The relationship between social capital and income is significant, also with significant wages (Table).

**Table 3. The coefficient and significance of the model can be seen as follows**

Variabel	Standar Coefisien Beta	t-hit	Sig	F-hit
Social Capital	0,139	2,776	0,006	7,707
Variabel	Standar Coefisien Beta	t-hit	Sig	F-hit
Social Capital	0,141	2,281	0,005	7,956

Source: Research Results, 2020

## 5. CONCLUSION

The income range is extensive, from the smallest of IDR 500,000 and the largest of IDR 7,500,000, with an average of IDR 1,903,042. This average is below the 2020 Palembang regional minimum wage of 3,165,519. Even so, respondents still stated that they were prosperous because they still had work compared to the unemployed so that their subsistence needs met. The largest proportion of education completed is high school, and generally, their families extended families rather than nuclear families. Implementing the extended family illustrated by the number of dependents greater than two people. The relationship between human capital and social capital on income is significant, as well as considering wages as an intervening variable.

## LIMITATION AND STUDY FORWARD

This study used cross-sectional data and variables used by human capital and social capital, while natural, physical, and financial capital variables assumed to be *ceteris paribus*. Likewise, a vulnerability assumed constant, arguing that in the short-term workers do not have the power to oppose in the event of a price increase. There is no natural disaster, no competition between workers, and neither political change.

This research will continue by adopting all capital asset variables. Respondents will expand, workers in the formal sector and workers in the informal sector. From these sector differences, it can be more imitated, whether there are differences in capital asset indicators as well as differences in views on vulnerability.



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## WEB-BASED MOSQUE FINANCIAL REPORTING SYSTEM IN INCREASING THE RECEIPT OF MOSQUE FUND (A CASE STUDY OF MOSQUES IN INDRALAYA)

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### Abstract

**Purpose:** This study aims to determine the accountability and transparency in the financial management of mosques in Indralaya, understand the things that encourage the importance of accountability and transparency and provide a concept proposal related to the mosque's financial reporting system to increase transparency and accountability of mosque finances.

**Research Methodology:** The method used in this research is a descriptive qualitative method. The primary data used in this study were obtained from interviews with mosque managers, observations, questionnaires to mosque attendants, and the community around the mosque.

**Results:** An good accountability even though both elements are needed to increase public trust in the management of mosque funds, avoiding prejudice against mosque administrators and as a form of accountability for the funds used.

**Limitations:** The limitation of this study is only indicate the mosque in Indralaya Sub-district and describe the results only by quaitative.

**Contribution:** The concept that researchers offer to improve the accountability and transparency of mosque funds is sitradamas (sistem transparansi dana masjid) using webbased technology.

**Keywords:** *Accountability, Fund Mosque, Transparency*

## 1. INTRODUCTION

Indonesia is a country with the largest Muslim population in the world. Pew Research Center, the Global Research Institute stated that in 2010, as many as 88% or 205 million people of Indonesia were Muslim. This amount is equivalent to 13% of all Muslims in the world. Aside from the large Muslim population, Indonesia has many mosques. Mosque Information System Ministry of The Religion Republic of Indonesia states that Indonesia has 4.577 large mosques (Directorate General of Islamic Development, 2014). Chairman of The Central Leadership Dewan Masjid Indonesia (DMI), DR. Drs. H. Muhammad Jusuf Kalla stated that on average big mosques accommodate as many as 250 worshippers (Hamdani, 2016).

The mosque has a very vital function. Masjid Nabawi, which was established during the time of the Prophet Muhammad SAW, has ten functions including as a place of worship, education, consultation, military training, social assistance, treatment of victims of war, dispute court, place of Islamic guidance, islamic information center, and communication-related to social issues, culture and economy (Putra and Prasetio, 2019). Mosque in Indonesia, including one organization non-profit because it does not aim to gain profits. The development of the times, the need for funds to sustain all activities in the mosque has increased (Rahayu, 2017). The mosque's funds are sourced from the community, so he funds must be managed properly and healthy. One form of good and healthy management of mosque funds is transparency and accountability (Haq and Miranti, 2013).

*“O believes, if you do muamalah not in cash for a specified time, you should write it down. And let a writer among you write it correctly. And let the writer not be reluctant to write it as God*



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*taught it, they should write it, and let the person who owes it teach (what will be written it), and let him fear Allah. the Lord, and let him not reduce the slightest of his debt " (Al-Baqarah: 282).*

Surah al-Baqarah verse 282 becomes the basis of accounting in Islam which emphasizes the principle of accountability and transparency. The purpose of this recording is to control every transaction that has been carried out to maintain fairness and truth. Therefore, every financial transaction carried out by a company must be based on and proven with proof of the transaction (Astarani, 2016).

The majority of mosques now use financial reporting based on PSAK 45 on non-profit Entity Financial Statements which state that non-profit organizations make financial reports and report them to report users. The mosque as an organization, should make financial reports consisting of statements of financial position, activity reports, cash flow statements, and notes to financial statements (Rini, 2018).

Several mosques in Indonesia now have records that reflect transparency and accountability. It aims to make people more trustworthy when donating funds (Azwari and Ayke, 2018). However, based on observations in Kecamatan Indralaya, several mosques still have not made good and healthy records. The Recording is done only once a week and announced when the Friday prayer is over. The financial statements prepared are also still simple and not by applicable standards.

Whereas, accountability and transparency have a big role in increasing public trust and maintaining the prosperity of the mosque (Asmasari and Rohmawati, 2019). The mosque's financial statements are vulnerable to being lost and damaged, so mosques need online financial reports that can be input digitally (Wulandhari, 2016).

This research is important to do in supporting the development of mosques management. Based on the phenomenon, this research aims to determine the transparency and accountability of funds mosques in Kecamatan Indralaya, understand the things that drive the need for transparency and accountability in financial mosques, as well as provide submissions related concept of financial records mosque digital is expected to be a role in increasing public trust.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Recording

According to Indonesia Dictionary, recording is a process; how to record or register something. According to Stice and Skousen (2009), the meaning of recording is an accurate financial report that can be generated if the results of events and business activities have been recorded or recorded accurately. Meanwhile, according to Juanda Astarani, recording is a stage of the writer's activities which are carried out chronologically and carried out repeatedly. The recording procedure can be said to be running if all related functions carry out their functions in accordance with the provisions and are carried out consistently in repetitive activities.

In the view of Islam, recording or which in this case is more directed towards the accounting process is of course very emphasized and it turns out that the basic concept has been introduced and explained in the Al-Quran in Al-Baqarah 282, " you who believe, if you do transaction not in cash for the specified time, let you write it down. And let a writer among you write correctly. And don't the writers be reluctant to write it down as Allah taught it, they should write, and let the person in debt imitate (what will be written), and let him fear to Allah, his Lord, and let him not reduce his debt at all "(Al-Baqarah: 282).

From this Quran, we can see that Allah SWT commands us to always take notes or record. Surat al-Baqarah 282 becomes the basis of accounting in Islam which emphasizes the principle of responsibility or accountability. The purpose of this recording order of course is to control every transaction that has been made so as to maintain justice and truth. Therefore, every financial transaction carried out by a company must be based and proven by proof of the transaction (Astarani, 2016).



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## **Mosque Fund Record**

In financial recording, the output that results from recording is of course in the form of financial reports. accordance with the Statement of Financial Accounting Standards (PSAK) 45 2011 concerning Financial Reporting of Non-Profit Entities, that non-profit organizations make financial reports and report them to report users. A mosque as an organization should make financial reports consisting of financial position reports, activity reports and cash flow reports as well as notes on financial reports (Rini, 2018).

As an accounting reporting entity that uses public funds as a source of finance in the form of donations, alms or other forms of social assistance from the community (public), mosques are part of a public entity whose activities must be accountable to the public. Transparency and accountability are important keys for public entities to survive and maximize their role in the socio-cultural domain where the entity is located which is different from other public entities (Simanjuntak et al, 2011).

Non-profit organizations are expected to be able to realize accountability for actions and decisions in financial reports to build trust, managers must be able to report and explaining each financial activity that occurs whether there are incoming or outgoing funds, transparency in this research refer to transparency in managing financial reports in order to reduce corrupt practices collusion and nepotism as well as acts of money laundering that are rife in this area non-profit organization (Sitorus et al, 2013).

In being accountable for the management of mosque funds, mosque administrators use various modes of financial management. However, in today's modern era, there are still many mosques, especially in Ogan Ilir, which still use a simple recording model which only records cash inflows and outflows and adds them together to produce the balance.

## **Digital-based financial management**

According to Solomon's theory, financial management is how to determine the effective way to use capital funds to become economic resources. From SC Kuchhal's point of view, financial management is concerned with procuring funds and using them effectively in conducting business. Meanwhile, digital means that all aspects used in financial management use modern technology base and no longer use conventional methods.

In the era of industrial revolution 4.0, technology currently plays an important role and is considered the most effective and efficient tools for doing something. With technology, the work can be clearly organized and have a high level of trust in accuracy. Based on data quoted from the website of the Indonesian Ministry of Finance, from 253 million Indonesian population half of them are millennials or the generation who are familiar with the internet. As many as 52.17% or around 132 million are internet users, 65% of the population shop online once a month, and 19.92% of the total population are customers using e-banking in Indonesia.

Digitalization has popular in various aspects of people's lives that sooner or later. This of course also has an influence on the field of accounting. Currently, every accounting disclosure is expected to be transparent and ensure accountability. Therefore, the use of financial technology (fintech) in various organizational units is currently being promoted to regulate financial management. Fintech has various aspects of Financial Service. Fintech makes financial services cheaper, faster and clearer.

## **3. RESEARCH METHOD**

### **Research design**

This research was conducted through direct observation of several mosques in Kecamatan Indralaya and conducting direct interviews with the informants. Observations were made through the direct involvement of all activities carried out by the object of research in the period from January, 20<sup>th</sup> to February, 9<sup>th</sup> 2020 so that a general overview was obtained about the implementation of the mosque's reporting system. In addition, interviews were carried out unstructured during the direct observation



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process.

### Object

The object of research is an attribute or nature or value of people, objects or activities with certain variations determined by researchers to be studied and drawn conclusions (Sugiyono, 2012). The object of this research are the Mosques in Kecamatan Indralaya especially in the mosque's financial reporting system.

### Population and Sample

The population in this study is the mosques in Kecamatan Indralaya. The research sample was chosen based on the Purposive Sampling method, which is a sample that has been determined by the researcher with special reasons and objectives based on certain criteria or considerations (Sugiyono, 2012). As for some of the mosque's criteria used as objects of this study are:

1. The mosque is located in Kecamatan Indralaya;
2. Strategic mosque location;
3. The mosque is relatively large.

The following mosques meet the above criteria and will be used as samples in this study, including:

**Table 1.1. List of Samples**

No.	Mosque Name	Address
1	Masjid Ghuzail Al-Ajmi Al-Barokah	Jl. Nusantara, KM.32, Indralaya
2	Masjid Bajumi H. Wahab	Jl. Lintas Timur KM.39, Tj. Sejaro, Kec. Indralaya
3	Masjid Kubro	Jl. Lintas Timur KM.35, Pasar Indralaya
4	Masjid Al-Ghazali	Indralaya Indah, Kec. Indralaya
5	Masjid Al-Muhajirin	Jl. Lintas Timur KM.35, Indralaya
6	Masjid Al-Ihsan	Jl. Lintas Timur KM. 35 Komplek SMPN 1 Indralaya

### Data and Data Sources

In this study using the type of internal data, namely data taken from the place where the study was conducted. Source of data used in empirically. This is data primer and secondary data. Primary data obtained from the results of observation, interviews, and questionnaires, and secondary data obtained from literature studies.

### Method of Collecting Data

Data collection techniques in this writing are carried out in three ways, including:

1. Data collection by interview. The type of interview used in this study is the interview using a framework in the form of interview guidelines. The guidelines used are only in the form of an outline. The informants interviewed were the mosque management especially the treasurer of each mosque who mastered the facts related to the transparency of the mosque's financial management in several mosques located in Kecamatan Indralaya.
2. Data collection with documents or documentary studies. This research uses a documentary study by finding data about the transparency of mosque fund management in Kecamatan Indralaya in the form of mosque literature and financial reports as well as other supporting documents provided by informants.
3. Data collection with questionnaires filled out by the visitors or residents around the mosque. The



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questionnaire contains questions related to the transparency of mosque funds to see how much the need for transparency of mosque funds. The questionnaire was taken using a reference from previous research and then developed. The research that became a reference in the making of this questionnaire was a study on the Application of Accountability and Transparency to Financial Statements in Managing Non-profit Organizations (Case Study of Masjid Agung Al- Umaraini and Partai Keadilan Sejahtera) by Arishda Khairun Nisa in 2017.

### Research Instruments

The research instrument is a tool to measure the phenomena that occur (Nisa, 2017). The instruments used in this study include:

1. Books and stationery;
2. Mobile;
3. Interview transcript; and
4. Questionnaire
5. Books, journals and other references.

### Data Analysis Method

Data analysis has a relationship with the data reduction. This is a step taken by researchers to select data that is considered important and collected into one so that it produces simple but meaningful data. Also, interpretation of data is also needed in qualitative research because of the data collected will be communicated to the public through writing or reports supported by existing concepts and theories. The data analysis technique used is Logic Analytic, which is adjusting various observations with interviews and previous research used in this study.

## 4. RESULTS AND DISCUSSION

### Result

**Table 3.1. The responses about intensity of community neighborhood mosque**

Number	Respondent's Answers	Frequency	Percentage (%)
1	Often	13	57,1%
2	Rarely	20	37,1%
3	Ever	2	5,7%
4	Never	0	0%
<b>Amount</b>		<b>35</b>	<b>100%</b>

*Source: Processed Data for Field Research 2020*

The table above shows that 57.1% of 35 respondents said that they often went to the mosque, 37.1 % said they rarely went to the mosque, 5.7% said they had been to the mosque, and 0% had never been to the mosque. Based on this statement, the majority of respondents said they rarely went to the mosque.

**Table 3.2. The responses about related to already or not mosque in the neighborhood you have transparency and accountability fund management**

Number	Respondent's Answers	Frequency	Percentage (%)
1	Done	20	57,1%
2	Not yet	15	42,9%
<b>Amount</b>		<b>35</b>	<b>100%</b>

*Source: Processed Data for Field Research 2020*

The table above shows that 57.1% of 35 respondents stated that the mosque in their neighborhood already had transparency and accountability fund management, while 42.9 % stated that the surrounding mosque did not yet have transparency and accountability fund management. Based on this statement, the majority of respondents stated that the mosque already had transparency and accountability fund management.



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**Table 3.3. The responses about regarding transparency and accountability are good or not**

Number	Respondent's Answers	Frequency	Percentage (%)
1	Done	17	48,6%
2	Not yet	10	28,6%
3	Not Responding	8	22,8%
<b>Amount</b>		<b>35</b>	<b>100%</b>

*Source: Processed Data for Field Research 2020*

The table above shows that 48.6 % of 35 respondents stated that mosque transparency and accountability were good, 28.6% stated that transparency and accountability were not good, and 22.8% chose not to respond. Based on this statement, the majority of respondents stated that the mosque's transparency and accountability were good.

**Table 3.4. The responses about regarding the need for or not to implement transparency and accountability mosque fund recording**

Number	Respondent's Answers	Frequency	Percentage (%)
1	Done	27	77,1%
2	Not yet	2	5,8%
3	Not Responding	6	17,1%
<b>Jumlah</b>		<b>35</b>	<b>100%</b>

*Source: Processed Data for Field Research 2020*

The table above shows that 77.1% of the 35 respondents stated that the recording of the mosque fund that is transparency and accountability should be applied, 5.8% me state does not need to be applied, and 17.1% chose not to respond. Based on this statement, the majority of respondents stated that the application of mosque fund transparency is needed.

**Table 3.5. The responses about related influence or not transparency and accountability on community trust in disbursing funds to the mosque**

Number	Respondent's Answer	Frequency	Percentage (%)
1	Yes	28	80%
2	No	7	20%
<b>Amount</b>		<b>35</b>	<b>100%</b>

*Source: Processed Data for Field Research 2020*

The table above shows that 80% of respondents stated that the transparency and accountability of funds was an influence on channel money to the mosque, while 20% said there was no influence. The majority of respondents stated that transparency and accountability of funds affect the trust of the community to channel funds to the mosque.

### Discussion

#### Transparency and Accountability of Mosque in Indralaya

Research that has been done shows that the financial reporting system of the Mosque in Kecamatan Indralaya does not yet have a written Standard Operation Procedure (SOP) like other organizations. Observation results showed that three of the six mosques that were the object of research have not yet implemented financial reporting using notice boards. This happened due to lack of awareness of the importance of transparency and accountability of mosque funds.

Masjid Ghuzail Al-Ajmi Al-Barokah is not registered at [simas.kemenag.go.id](http://simas.kemenag.go.id). Based on the explanation from the source, namely Mr. Minhar (manager), Masjid Ghuzail Al-Ajmi Al-Barokah has a lack of funding. Although the mosque is classified as a fairly large mosque, but there are some things that still need improvement. The root of the problem is the lack of transparency of mosque funds, which makes



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public trust in the mosque fund management minimal and makes it difficult for people to contribute.

Mosque cash flows are only recorded in books manually and fully the responsibility of the mosque treasurer. The report is recap every Friday. This shows the mosque's financial system is not yet optimal. Similiar incidents also 843ccurred in other mosques, the average mosques in Indralaya only announced financial information every Friday. While the announcement boards used to describe mosque finances are rarely updated. This is integrated in Masjid Masjid Al- Ghazali Unsri and Masjid Ghuzail Al-Ajmi Al-Barokah, even though both mosques are close the academic environment.

This was also experienced by the Masjid Kubro (registered at [simas.kemenag.go.id](http://simas.kemenag.go.id) with ID: 42682), financial records were submitted to the treasurer of the mosque based on trust. Mosque Kubro has an average mosque reception of IDR 700,000 to IDR 1,000.00/week. Mosques do not provide board Masjid Kubro Financial Statements so that people only know the financial condition when they are declared every after prayers Friday. According to a statement from Mr. Heriyadi, as the Treasurer of the Masjid Kubro the financial statements are still very simple and the management of the mosque is based on a sense of trust.

### **Things that Encourage the Need for Transparency and Accountability of the Mosque**

The urgency regarding the need for mosque transparency and accountability is supported by data obtained from questionnaires, where researchers also invite respondents to give reasons for their opinions. The reasons raised are only for two questions, namely the need for transparent or accountable application of mosque fund records and whether transparency.

### **The Responses About Regarding Whether or Not To Implement A Transparent and Accountable Mosque Fund Recording**

The majority of respondents stated that the application of mosque fund transparency is needed. The number of reasons underlying this opinion include:

1. To know mosque fund management has been channeled properly and provide benefits to approximately;
2. Avoid their prejudices to the manager mas mosque related to the management of funds;
3. As a form of accountability of funds from the public.

### **The Responses Regarding Transparency and Accountability Influence or Not on Community Trust in Distributing Funds to the Mosque**

The majority of respondents stated that they need to be based on several reasons, including:

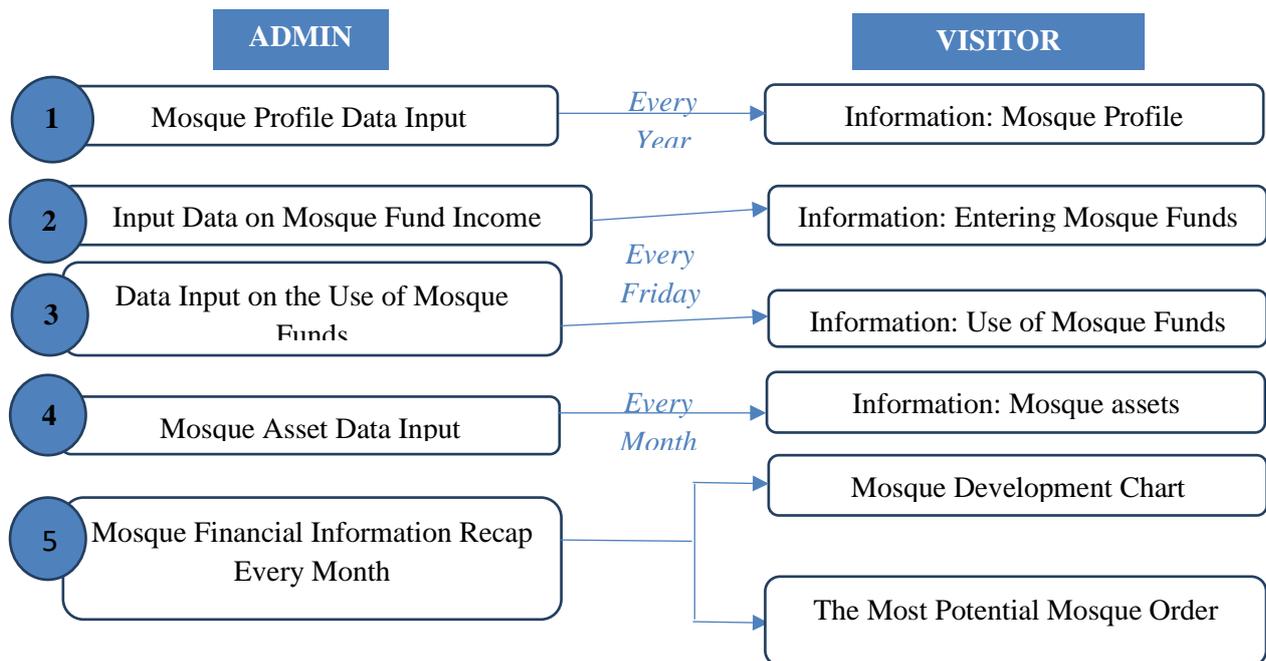
1. Transparency of funds increases public trust, so there are no more concerns if you want to donate money in the mosque, and
2. Transparency clarifies the details of funds coming in and out.

### **The Concept of Sitradamas (Mosque Fund Transparency System)**

The need for transparency of mosque funds requires a good system for managing mosque funds. Sitradamas (Mosque Fund Transparency System) is a system built to realize the transparency of mosque funds. By utilizing 4.0-based technology, Sitradamas presents the profile and financial information of the mosque on a website. The Sitradamas scheme is described as follows:

#### **Sitradamas Scheme**

The transparency system of the mosque fund has two display versions, namely the admin version and the visitor version. The admin version will ask "admin" to input some data and recapitulate the data consisting of:



**Figure 4.1. Scheme of Sitradamas**

**First, input the mosque profile data.** At this stage, the admin inputs the mosque profile data which includes: mosque name, updated mosque photo, mosque address, mosque ID (taken from the Mosque Information System or simas made by the Ministry of Religion), mosque land area, mosque land status, area mosque building, year of establishment, names of mosque managers and contact persons (people who can be contacted if there is a need related to mosque funding, for example: wanting to assist the mosque, and so on). The mosque profile data input is done once a year or adjusts the management period of the mosque manager. The output produced is information related to the mosque profile.

**Second, information on mosque fund income.** Admin input the mosque's fund sources and nominal data, such as *infaq* data, donations in charity boxes, generous donations, endowments, and alms. The Mosque Fund Income Data is updated once a week, every Friday. The output produced in the form of information related to the sources of income of the mosque in that period and the nominal amount.

**Third, input data usage (expenditure of mosque funds).** Admin input usage data from mosque funds obtained (such as expenditure for *majelis taklim*, purchase of materials for mosque construction, distribution of *infaq* mosque, distribution of *zakat*, etc.) as well as recipients of these funds (if given to individuals or institutions in need). Like income, the data on the use of mosque funds is updated once a week, every Friday. The output generated in the form of information related to the use of mosque funds (costs incurred related to the development of the mosque) as well as the distribution of funds to those in need (including recipients).

**Fourth, input of mosque asset data.** Admin input mosque asset data, both in the form of current assets (cash, equipment, etc.), and fixed assets (equipment, land, etc.). Data related to mosque assets is updated once a month. The output produced in the form of information related to assets owned by the mosque. In this case, a mosque with a good financial management system has a cash balance of IDR 0, (zero rupiah), because it is used develop a mosque or distributed to those entitled to receive it.

**Fifth, Mosque Financial Recapitulation per Month.** Admin recapitulates mosque finances once a month to find out the mosque's financial development, including the total income and expenditure of the mosque, as well as additional assets owned by the mosque. The resulting output is a graph of the mosque's financial



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development and the potential of each mosque which is then followed, to find out which mosque is the most potential in that period.

Admin version certainly has a difference with the visitor version. In the visitor version provided some information that may be needed by visitors. The information includes:

**First, Mosque Profile Information.** Mosque profile aims to provide updated and trusted information to visitors related to matters relating to the mosque, so that when the person has an interest such as wanting to provide assistance to the mosque, that person can contact the CP provided or directly come to the mosque at the address listed. The photo of the mosque allows the public to be aware of developments in the mosque's construction and the condition of the mosque's updates, this will later be related to information on mosque expenditures, so that shows that mosque funds are indeed used as they function.

**Second, Information on Inclusion of Mosque Funds.** The entry of mosque funds aims to provide valid information about the amount of funds coming into the mosque and its sources.

**Third, Information on the Use of Mosque Funds.** The use of mosque funds informs the amount of funds incurred for the purposes of the mosque or distributed to those in need, accompanied by the recipient's name (if needed).

**Fourth, Mosque Asset Information.** Mosque assets contain information about the amount of assets owned by the mosque and its nominal value, so visitors can monitor the mosque's asset development.

**Fifth, Graph of Mosque Development and the Most Potential Mosque Sequence.** The mosque development chart shows the development of the mosque through the fund side, by displaying a recap of income and expenses per month, as well as additional assets. The order of the most potential mosques is also displayed to see which mosques still need further development, as well as mosques whose construction is good enough, so that the distribution of aid funds to the mosque is more on target.



Figure 4.2. Sitradamas Web Display Design

Sitradamas.com web will display information that has been inputted by the admin so that it can be used for the needs of interesting parties such as the government, the community, as well as related mosque administrators. The purpose of making web sitradamas.com is to avoid damage and loss of financial statements that are written manually and to realize the transparency and accountability of mosque financial statements. The web design uses a simple financial reports considering that not all mosque administrators, especially the finance department (mosque treasurer) understand accounting. Thus, the



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report form is simplified. This web design can change according to the conditions of understanding of the mosque management, because the mosque manager will later be responsible for the financial management of the mosque.

The efforts that can be support this system, are:

1. Suggestions for mosque managers in Kecamatan Indralaya are the recording and compilation of mosque financial reports should be by applicable standards, so that they better reflect transparency and accountability. The mosque which was delivered orally financial statements should need to report financial conditions through the noticeboard is clear that the assembly at any time can see the financial condition of the mosque.
2. The Indralaya regional government should increase the understanding of the managers of mosques in Indralaya related to the urgency for the transparency and accountability of mosque finances. The government can also consider the proposed concepts that researchers have conveyed in the study because the creation of the system requires a considerable cost. Socialization and training on the use of the system are also needed if later it is truly implemented, because not all mosque managers understand accounting. Empowerment or collaboration with can be done because Indralaya is the location of one of the major campuses in South Sumatra, namely Sriwijaya University and the mosques are not far from student settlements. So students as agents of change can channel the usefulness of the knowledge they have acquired, and provide a better change in society.
3. The government cooperates with the Ministry of Religion regarding the implementation of the transparency system for mosque funds and looks at the possibility of collaborating with this sitradamas with the mosque's existing information system ([simas.kemenag.go.id](http://simas.kemenag.go.id)). The application of this system can be carried out on a small scale beforehand as in the Kecamatan Indralaya. So that if it has been successful, it can become a pilot for other regions, so that the transparency and accountability of mosques in Indonesia can be realized. In addition, the government can also urge mosque managers to register their mosques at [simas.kemenag.go.id](http://simas.kemenag.go.id), so that mosque data throughout Indonesian are more valid and accurate.

### 5. CONCLUSION

The conclusion from the research are:

1. Mosques in Kecamatan Indralaya have not implemented transparency and accountability in financial reporting on mosque funds.
2. The factors that drive the need for transparency and accountability are to know fund management masjid have channeled properly and provide benefits to approximately, avoid their prejudices to the manager mas mosque related to the management of funds and as a form of accountability for funds from the public.
3. The concept proposed to increase transparency and accountability of mosque financial reports in Kecamatan Indralaya is digital-based financial reports ([web sitradamas.com](http://web.sitradamas.com)).

### LIMITATION AND STUDY FORWARD

The limitation of this study is only indicate the mosque in Indralaya Sub-district and only used quantitative analysis. Suggestions for further researchers is to research in a broad scope such as more than one research location so that later the results of the study can be compared. Then, the number of mosques that are objects of research should also be more so that the data obtained is more accurate and represents all the mosques in the area under study.

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## THE USE OF CUSTOMER ACCOUNTING INFORMATION DURING PANDEMIC ERA

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### Abstract

**Purpose:**

**Research Methodology:** This study uses a mixed method, namely quantitative and qualitative methods. Using SPSS 25 for factor analysis and semi-structured interviews.

**Results:** analysis of customer profitability as customer accounting information that is most widely used by culinary MSMEs during a pandemic.

**Limitations:** Write a brief limitation of the study

**Contribution:** For culinary MSMEs and others, they can use customer profitability analysis to maintain their business in the midst of a pandemic.

**Keywords:** *Customer Accounting, Customer Profitability Analysis, Lifetime Customer Profitability Analysis, Valuation Customer As Assets.*

### 1. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) have a strategic role in supporting national economic growth after being affected by the Covid-19 pandemic. This can be seen from the contribution of MSMEs to Indonesia's GDP which continues to increase to around 60% in the pre-pandemic period. The absorption of labor by MSMEs is also very high and continues to grow, reaching 96.99% - 97.22% with the number of MSME actors reaching 62 million or around 98% of national business actors. On the other hand, MSMEs are also the sector hardest hit by this outbreak, as reported by the Indonesian Chamber of Commerce and Industry (Kadin) which confirmed that of the 64.2 million MSMEs in Indonesia, around 50 percent or the equivalent of 30 million MSMEs must temporarily close. due to the Covid-19 pandemic. In fact, based on data from the Indonesian Institute of Sciences (LIPI), if the pandemic does not end, 85.42 percent of MSMEs will only be able to survive for one year. The Organization for Economic Co-operation and Development (OECD) also reported that the COVID-19 pandemic is affecting the economy from the supply and demand side. On the supply side, companies reduce the supply of raw materials and labor and supply chains which are also an obstacle. From the demand side, there is a lack of demand and decreased consumer confidence in a product.

The results of these reports then make MSMEs more aware of the value of a consumer. MSMEs are required to be able to produce products that suit consumer needs. Quality products, good service at competitive prices are the demands of today's consumers. Therefore we need an in-depth analysis related to customers to improve the performance of an organization such as MSMEs. Customer accounting is one of the strategies management accounting techniques that focus on assessing customers, be it from customer profitability, sales or costs incurred in relation to customers or customer groups (Cinquini and Tenucci, 2006; Guilding and McManus, 2002). This accounting information plays a role in the strategic decision-making process (Hamzah Al-Mawali & Lam, 2016) to improve organizational performance, both financial and non-financial. In this study using a non-financial performance balance scorecard which consists of four perspectives, namely financial perspective, customer perspective, internal business process perspective, and learning and growth perspective (Kaplan, R. S., and Norton, 2000).



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Customer Accounting consists of three dimensions that have important information about customers, namely customer profitability analysis, lifetime customer profitability analysis and customer assessment as assets. With this information the company can update its business strategy by retaining profitable customers or for unprofitable customers by offering them new services.

This study uses a mixed methodology to provide details regarding the extent to which customer accounting information is used in MSMEs, and will then discuss the dimensions of customer accounting information. Very few previous studies have discussed in detail the dimensions of customer accounting information. Therefore, this research is important for MSME actors, especially during the Covid 19 pandemic by using information generated from consumer accounting to improve organizational performance.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### UMKM

Law No. 20 of 2008 explains that a micro business is a productive business owned by individuals and / or individual business entities that meet the criteria of a micro business as stipulated in the Law. Micro small and Medium Enterprises. MSMEs are divided into three and based on assets and turnover (Law No. 20 of 2008, 2008).

### Customer Accounting as Strategic Management Accounting Techniques

Strategic Management Accounting Techniques can be defined as a set of specific managerial accounting approaches, which seek to integrate insights from management accounting and marketing management within a strategic management framework (Ah Lay & Jusoh, 2017). Customer accounting is one of the techniques in management accounting strategy, by measuring each customer and / or customer segment contribution to the company's profitability, be it past, present or future. Customer Accounting information systems are used for a variety of resource planning and decision purposes, ranging from different prices and service levels (Holm et al., 2016).

According to Malawi (2013), customer accounting has 3 dimensions, namely: (1). Customer Profitability Analysis (CPA). This technique provides management information about the profitability of an individual customer or group of customers. The CPA provides direction to management to analyze customer sales and to determine whether the company as a whole is profiting from doing business with specific customers. (2). Lifetime Customer Profitability Analysis. This technique allows the organization to know which customers are more profitable in the long run, so that customer relationships can be changed or controlled to increase the profitability of the organization. (3). Valuation Customer As Assets. Valuation customer as assets is a calculation of the customer value to the organization. Bringing better customer value is now considered to be one of the greatest critical elements for the success of any company today or in the future.

## 3. RESEARCH METHODOLOGY

This study uses a mixed method, namely quantitative and qualitative methods. According to Creswell (2014), mixed method is a research approach that involves collecting qualitative and quantitative data, integrating the two forms of data, and using different designs that may involve philosophical assumptions and theoretical frameworks. The use of this method aims to analyze more deeply the use of customer accounting information at culinary MSMEs in Pekanbaru. The first step taken was to collect data using quantitative methods, namely by distributing questionnaires to 93 MSMEs. Then the results of filling out the questionnaire were used as the basis for questions for qualitative data collection, namely through in-depth interviews with 7 MSMEs in Pekanbaru. The interview in this study consisted of 5 (five) question items that were asked to the respondent.

This research was conducted at culinary MSMEs in Pekanbaru. This research was conducted from July to August 2020. The population of this study is Micro, Small and Medium Enterprises (MSMEs) engaged in the culinary business in the city of Pekanbaru. The sampling technique used purposive



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sampling technique, which is a sampling technique based on predetermined criteria. The total population is 162 MSMEs in the culinary field in the city of Pekanbaru, and the number of MSMEs that have criteria to be sampled is 101 MSMEs. Respondents in this study were 93 respondents.

## 4. RESULTS AND DISCUSSIONS

### 1. Factor Analysis

Factor analysis in this study used the Kaiser-Meiyer-Olkin (KMO) method with a value of more than (0.5) and the measure of sampling adequacy (MSA) method. The following is the variable selection process in this study;

#### a. KMO test and Barlette's Test

This test is conducted to determine whether the factors in the study are valid or not. Gozali (2009) says that the KMO and Barlette's Test numbers must be above (0.5) where the provisions are based on the probability criterion ( $\text{sig} > 0.05$ ), then the research variables can be analyzed further. KMO and Bartlett's test results can be seen in the following table;

**Table 1**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.866
Bartlett's Test of Sphericity	Approx. Chi-Square	435.014
	df	28
	Sig.	.000

Source: SPSS Processing Results

Based on the table above, it is known that the KMO and Barlett test numbers are 0.866 with a significance value of 0.00, which means that the number is 0.5 and a significance value is below 0.05. then the existing variables and samples can be analyzed using factor analysis.

### Anti Image Matrics

to find out the factors that are used as analysis factors have a strong correlation or not, with a value greater than or equal to (0.5). Then all the factors forming these variables are valid and no factors are reduced. To see the anti image matrices, it can be seen in the table that there is a letter code (a) in the SPSS output, which means a sign for Measure of Sample Adequacy (MSA). Here's the table;

**Table 2. MSA Test Results**

No. Factor	No. Factor	Nilai MSA
1	1 Profit from customers (X1)	898
2	2 The cost of satisfying the customer (X2)	811
3	3 Customer category (X3)	921
4	4 Future advantages (X4)	830
5	5 Future Costs (X5)	799
6	6 Incoming money from future customers (X6)	908
7	7 Cash out for future customers (X7)	886
8	8 Good relationship for the long term (X8)	857

Source: SPSS Data Processing Results, 2020



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Based on the results of the data above, it can be seen that all factors meet the 0.5 limit, which means that it can be analyzed further.

### b. Eigenvalue

Eigenvalue is used to analyze the feasibility of a new factor. The condition for eligibility to become a new factor is that the eigenvalue is greater than or equal to 1, while if there is a factor that has an eigenvalue less than 1, the factor will be excluded or not used.

### c. Cumulative Variance

The cumulative value of variance shows the level of representation of the new factors that are formed against the initial or original factors. The condition is that if the new factors formed are able to represent the initial or original factors, the cumulative variance value is > 60%.

**Communalities**

	Initial	Extraction
keuntungan dari pelanggan	1.000	.644
biaya memuaskan pelangan	1.000	.717
kategori pelanggan	1.000	.724
keuntungan masa depan	1.000	.876
biaya masa depan	1.000	.826
uang masuk dari pelanggan dimasa depan	1.000	.690
uang keluar untuk pelanggan dimasa depan	1.000	.733
hubungan baik untuk jangka panjang	1.000	.489

Extraction Method: Principal Component Analysis.

From the table above, it can be seen that the variable has a communal value above 0.5, only for "good long-term relationship (X8)" which has a value below 0.5, which is equal to 0.489. Furthermore, based on the value of "future profit (X4)" has a value of 0.876, this means that 87.6% of the variation in the magnitude of the X4 variable can be explained by the formed factors. Likewise the explanation for the values of the following variables. With the stipulation that the greater the value of the communalities of a variable, the more closely related it is to the formed variables (Santoso, 2011).

### d. Loading value

The loading value can be seen from the eigenvalue, if the value is more than 1 then a variance deserves to be included in the new factor.

**Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.586	57.325	57.325	4.586	57.325	57.325	3.663	45.790	45.790
2	1.114	13.924	71.249	1.114	13.924	71.249	2.037	25.459	71.249
3	.762	9.519	80.769						



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4	.441	5.509	86.278					
5	.394	4.924	91.202					
6	.325	4.062	95.264					
7	.239	2.991	98.255					
8	.140	1.745	100.000					

Extraction Method: Principal Component Analysis.

Based on the table above, factor 1 and factor 2 the eigenvalues number is still at 1, namely 4,586 and 1,114. but for 6 factors the number of eigenvalues is below 1. So the factoring process stops at 2 factors only. The number of factors in this factor analysis is determined based on the value of the cumulative proportion. If the value of the cumulative proportion is in the range of 60% - 70%, then this component can be selected as the main component or factor.

Based on these provisions, there are 2 main components that have a cumulative proportion ranging from 60% - 70%. So that the two main components are the best summary of information from a number of analyzed items. The table above also explains the formation of two factors. The first factor with a cumulative portion of 60% - 70% is able to explain 57,325% of the total diversity of research items. The second factor explains 13,924% of the total diversity. So the cumulative of the two factors formed can explain 71,249% of the total diversity of research items.

### a) Descriptive analysis of customer accounting

This analysis aims to see the customer accounting information that is most widely used by culinary SMEs in Pekanbaru. Of the three indicators, analysis of customer profitability is the most widely used, namely (mean = 3.24, StD = 0.64) followed by customer assessment as an asset and analysis of customer profitability for life.

	Mean	StD
Analisis Profitabilitas Pelanggan	3.24	0.64
Analisis Profitabilitas Pelanggan Seumur Hidup	3.10	0.62
Penilaian Pelanggan Sebagai Aset	3.15	0.62

### Qualitative results

This study is a combination of quantitative and qualitative research, which aims to confirm and validate the results of distributing questionnaires related to answers to statements in customer accounting. This is necessary to see the extent to which MSME actors utilize customer accounting information in dealing with environmental uncertainties, namely the presence of the Covid 19 pandemic in improving their performance. Respondents were asked to fill out questionnaires and provide additional information through direct interviews.

This interview was conducted in a semi-structured manner. Overall, the MSME actors were used for various strategic purposes, such as for customer pricing, customer retention, customer relationship management, as well as updating and modifying their business strategies.

### a) For strategic decision making for your business, what information on customer accounting do you use?

Business actor A said that, overall, *customer accounting information is very helpful in making business strategies in the midst of intense competition, but at the time of the COVID-19*



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*pandemic. What we can do is focus on analyzing customer profitability. Especially old customers. Our customers are categorized into several groups that have the potential to generate profits. Service is improved, then prices are also adjusted. However, there are still difficulties in meeting different customer demands. Whereas for the two things mentioned above (analysis of the profitability of future customers and customers as assets) during a pandemic like this is not a priority, we do not really think about it. All we think about is how to survive by maximizing existing customers.*

This is consistent with the results of previous quantitative tests and these results are supported by literature review by Petty and Goodman (1996) showing that customer profitability information increases organizational profitability by improving customer relationship management.

- b) Sort the customer accounting information based on the level of usage in your company / business!  
As a whole, business actor D and several business actors interviewed can be concluded that the first analysis of customer profitability, the second and last analysis of future customer profitability is the customer as an asset. These results also support research conducted by Malawi (2013) that business operators in Jordan choose customer profitability analysis as the first order.
- c) Why do you rarely / never use this customer accounting information?  
Business actor B said that, *during a pandemic like this, we prioritize old customers. Profitable customers to keep us afloat. Analyzing customer profitability in the future requires costs, such as innovation or technology, and this is clearly not in the current strategic plan. Analysis of the customer as an asset is also very costly, because it talks about the money we have to spend to retain the customer as an asset.*
- d) Do you classify your customers? What kind of classification?  
Business actor C and several other actors classify customers based on several criteria, namely customers who order special products, customers who buy using the application, supplies used for customers who order special products.
- e) Classification of customers that you do, what is the benefit for your business? This grouping aims to see whether customers who order special products are more profitable than customers who buy standard products (which are already available in stores).

### CONCLUSION

Based on the results of factor analysis, it can be seen that two factors are the main factors in customer accounting, namely the estimated profit from the customer and the estimated cost to satisfy the customer. This reflects that culinary business actors in Pekanbaru tend to prioritize how to satisfy customers, what costs to support this, for example good packaging, or selling unique products according to the characteristics requested by customers. These two factors are the main factors in the analysis of profitability in customer accounting. Apart from that, of the three customer accounting indicators, profitability analysis is in the first rank compared to the other two indicators.

### LIMITATION AND STUDY FORWARD

This research was only conducted on MSMEs engaged in the culinary sector, both food and beverages, which registered their business on the Riau Umkm site, so the results could not be generalized. In addition, this study only uses three indicators, so further research should be able to use five indicators as other researchers have done. So that the results are more comprehensive.



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## THE EFFECT OF TAXATION KNOWLEDGE, QUALITY OF FISCUS SERVICE AND MORAL OBLIGATION ON TAX AMNESTY PARTICIPANTS IN TAX OFFICE OF PRATAMA ILIR BARAT PALEMBANG

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### Abstract

**Purpose.** The tax amnesty policy made by the government is a reform in the field of taxation as the government's effort to maximize state revenue with the aim that taxpayers invest all of their assets in the territory of the Republic of Indonesia. The low public participation in the tax amnesty program can be seen from the number of business taxpayers registered at Tax Office of Pratama Ilir Barat Palembang as many as 17,103 taxpayers and only 1,270 taxpayers participating in the tax amnesty program. The variables used in this study are taxation knowledge, quality of fiscus service, moral obligations, and public participation in tax amnesty.

**Research Methodology.** This study aims to find empirical evidence that tax knowledge, the quality of fiscus service moral obligations have an influence on public participation to take part in tax amnesty.

**Results** The results showed that tax knowledge, the quality of fiscal services and moral obligations had a positive and significant effect on public participation in tax amnesty. Knowledge of tax regulations owned by taxpayers has a positive and significant impact on public participation in tax amnesty, the quality of fiscal services provided to taxpayers has a positive and significant impact on public participation in tax amnesty, . the moral obligations of taxpayers have a positive and significant influence on public participation in tax amnesty

**Limitations.** Survey method with a questionnaire not an interview, variable and respondent cannot be generalized, so there is still potential for sampling error.

**Contribution.** This research is expected to increase knowledge, understanding and services for the tax directorate general regarding the factors that influence the behavior of individual taxpayers so that the public (taxpayers) participate in government programs or policies to increase discipline in fulfilling tax responsibilities.

**Keywords:** *tax knowledge, quality of fiscus service, moral obligations, tax amnesty*

### 1. INTRODUCTION

The role of tax that is expected as the only source of income, apparently there are obstacles to tax compliance so that tax revenue is not optimal. The government finally issued a tax amnesty policy [1]. The tax amnesty program is expected to increase awareness, obligation and compliance behavior without having to be given a warning letter first. One of the objectives of government policy is to withdraw assets that are abroad, so that they are willing to invest in Indonesia, and in the future taxpayers cannot avoid paying taxes [2].

Based on data obtained from KPP Pratama Ilir Barat Palembang in January 2020 it is known that the total number of mandatory 2020 taxpayers is 174,411 taxpayers. A total of 17,103 are business



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taxpayers of that number who joined the tax amnesty only 1,270 taxpayers while the rest did not participate in the tax amnesty. Based on this number, it can be concluded that the participation of business taxpayers who registered with those who participated in tax amnesty is still very low. The low level of community participation can be influenced by several factors including knowledge, fiscus service, moral taxpayers and other factors. The supporting factor for the low participation of the public following the first tax amnesty is the lack of taxpayer knowledge about taxation. According to Yani & Noviani (2017) with good understanding and knowledge of taxpayers on tax amnesty regulations, it can foster positive taxpayer behavior on the taxation system in force in Indonesia, so taxpayers want to participate in tax amnesty. the improvement of taxation knowledge is expected to motivate compliance with the obligation to pay taxes and report their assets voluntarily (Hidayat et al., 2014).

The second factor is the quality of fiscus service, tax officials have the responsibility to provide good service. Taxpayers are entitled to get excellent and comfortable service from the fiscus service. The quality of services provided by tax officials is not satisfactory, because the fiscus service prepared to serve taxpayers who take part in tax amnesty sometimes inaccurately provide information about the requirements that must be completed by taxpayers. Excellent service, which is provided to taxpayers can foster moral obligation behavior of taxpayers, so they are willing to become tax amnesty participants.

The third factor is moral obligation. The moral obligations of taxpayers will encourage taxpayers to always obey in reporting tax obligations and realize the importance of paying taxes even though tax amnesty has ended [5]. The moral behavior of taxpayers is reflected in the honest attitude when calculating and reporting tax obligations correctly and on time. Having guilt when violating tax laws, tax amnesty regulations and serving as a principle of life that fulfilling the obligation to pay taxes properly and on time becomes a necessity or obligation that should not be abandoned even after the tax amnesty program has ended. This study aims to determine the effect of tax knowledge variables, the quality of fiscus service and moral obligations on public participation in tax amnesty.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Putra & Hidayat (2018), Subadriyah & Aliyah (2018), Nurkhin et al (2018) show that taxpayer compliance and tax sanctions have a positive effect on tax amnesty participation. Ibrahim et al (2018) states that the socialization provided by the tax authority to taxpayers comprehensively to achieve the objectives of the tax amnesty program, whereas in the final period of the tax amnesty program more maintain or identify tax subjects or objects in order to increase the tax base as a basis for future taxation. However, it is different from the research conducted by Sari & Wirakusuma (2018) where the perception of tax amnesty cannot moderate the influence of taxpayer awareness on compliance which means that the presence or absence of tax amnesty perception cannot influence taxpayer awareness to participate in government policies. Nurlisna et al (2018), Yani & Noviani (2017) prove that the tax amnesty program responded positively by increasing willingness to pay taxes, which means knowledge and understanding of tax amnesty policy rules and a good perception of the effectiveness of the tax amnesty system has a positive effect on the willingness to become a tax amnesty participant while the level of trust in the government and legal system has no influence on the willingness to be a tax amnesty participant. Xin et al (2015), Manual & Xin (2016), Oladipupo & Obazee (2016) where the results of the analysis state that tax knowledge has a significant effect on tax compliance.

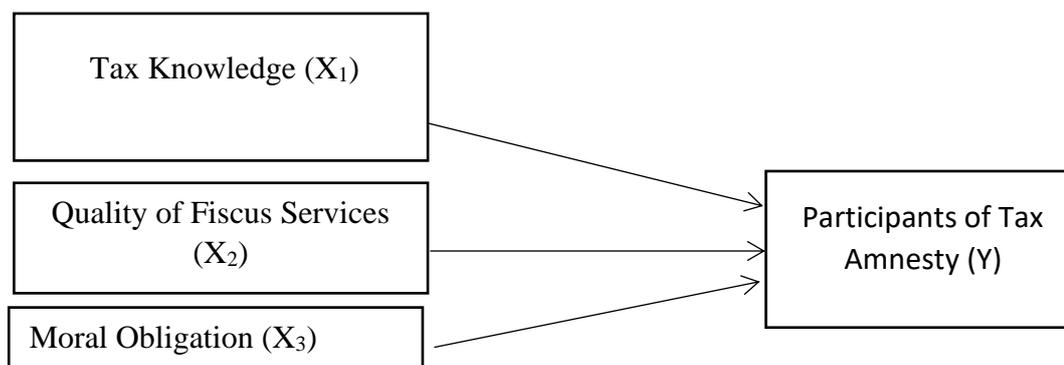
Murti et al (2014), Fadzilah et al (2017), Dharma & Suardana (2014), Lianty et al (2017) said that the quality of fiscal services affects the compliance of individual taxpayers, so that it can be a reference for tax officers to improve compliance taxpayer. policy [1], Sari & Fidiana (2017) who stated that the implementation of tax amnesty has not run optimally due to the lack of standardization of information between one tax authority and another. Akib et al (2017), Sumartaya & Hafidiah (2014), Purnamasari & Sudaryo (2018) said that the morale of taxpayers simultaneously has a positive effect on the

compliance of individual taxpayers, which means that if taxpayers know well, it will increase tax compliance, so it also affects the morale of taxpayers.

### 3. RESEARCH METHODOLOGY

This study aims to find empirical evidence that tax knowledge, the quality of fiscus service moral obligations have an influence on public participation to take part in tax amnesty.

This research is formulated in the framework of the picture as follows:



**Figure 1. Conceptual Framework**

Source: Data process, 2020.

Research hypothesis of this article:

- H1: Knowledge of tax regulations has a positive effect on community participation in tax amnesty at the Tax Office (KPP) Pratama Ilir Barat Palembang.
- H2: Fiscus Service have a positive effect on public participation in tax amnesty at the Tax Office (KPP) Pratama Ilir Barat Palembang.
- H3: Moral obligation has a positive effect on community participation in Tax Amnesty at the Tax Office (KPP) Pratama Ilir Barat Palembang.

This study uses a description method using cross section data. Cross section is research data obtained by collecting data within a certain period or time limit, with the aim of answering research questions [23]. This research was conducted at the Palembang Ilir Pratama Tax Office. The data used by researchers are primary data while the object of research is the taxpayers of individual entrepreneurs registered at the Ilir Pratama Tax Service Office Palembang. The sampling technique is done by using convenience sampling. Researchers used the Slovin formula with a leeway of 10%.

This research was conducted at the Palembang Ilir Pratama Tax Office. The data used by researchers are primary data while the object of research is the taxpayers of individual entrepreneurs registered at the Ilir Pratama Tax Service Office Palembang. The data source in this research is a questionnaire distributed to respondents of individual business taxpayers who are registered at the Tax Office of Pratama Ilir Barat Palembang. The population in this study are all individual business taxpayers who are registered at the Ilir Pratama Tax Office in Palembang. The sampling technique is done using convenience sampling. The population of taxpayers who are individuals who took part in tax amnesty in 2016 - 2017 was 1,270 taxpayers and the number of samples for the study was 147 respondents. The data technique analyzed in this study is logistic regression analysis (binary logistic regression), because the dependent variable of the study is that community participation in tax amnesty is dichotomous or is a dummy variable. The instrument in this study was a questionnaire before being used as an instrument first to be tested through validity and reliability testing.

### 4. RESULTS AND DISCUSSIONS

Results from this article based on data from 160 questionnaires that have been distributed, all returned, and which can be processed are 147 questionnaires or 92%. Respondents who participated in



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this study were 54% women, while men were 46. Most respondents had business types, namely 67% trading businesses, and 10% manufacturing businesses. Respondents who participated in the tax amnesty program were 105 respondents or 71% of 147 samples while for the remaining 42 respondents or 29% who did not participate in the tax amnesty program.

The validity test results for all independent variables show the value of  $r_{count} > r_{table}$  with a value of  $r_{table}$  of 0.1362 so that it can be concluded that for the validity test can be said to be valid. Likewise, the reliability test results that indicate the value of Cronbach's alpha for each independent variable is greater than 0.7. So it can be concluded that all variable instruments in this study already meet the reliable criteria.

This study uses data analysis by using the binary logistic regression analysis technique. The first step is to assess the overall fit model of the data. Hypotheses for assessing model fit are:

H<sub>0</sub>: hypothesized model fit with data.

H<sub>a</sub>: the hypothesized model doesn't fit the data

Based on the SPSS iteration history block 0 output, it is obtained that when the independent variable is not included in the model, then the log-likelihood value is 175.997 and the chi square table value is 175.198 (175.99 > 175.198). This means that if the value of -2 log likelihood is greater than the chi square table, then H<sub>0</sub> is rejected and this shows that the model before entering the independent variable does not meet the test requirements. Then iteration history block 1 produces a value of -2 log likelihood of 128.249 and a chi square table value of 171.907 means that when involving three independent variables. then -2 log likelihood must be smaller than the value of chi square, then H<sub>0</sub> is accepted and meets the test requirements.

Next is the model summary test in this study there is a Nagelkerke R Square value of 0.397 or equivalent to 39.7%. This means that the independent variable in the study has the ability to explain the dependent variable by 39.7% and 60.3% explained by other variables outside the research model. Hosmer and Lemeshow's Test with a significance value of 0.988 or equal to 98.8% is greater than alpha 5% so that it accepts the null hypothesis (H<sub>0</sub>) and means the model is able to predict observational values or the model can be accepted because it matches the observational data. The SPSS output display shows that the statistical value of Hosmer and Lemeshow Goodness-of-fit is 1.754 with a significance of 0.988 with a value above 0.05.

The logistic regression results shown in table 1 mean that the test results with logistic regression at a significance level of 5%,

**Table 1 Logistic Regression Test**

	B	Sig.	Exp (B)
Step 1 <sup>a</sup> PPP	0,185	0,001	1,203
KPF	0,123	0,014	1,130
KM	0,126	0,006	1,134
Constant	-9,670	0,000	0,000

*Source: Processed by the writer, 2020*

from the logistic regression tests above, the logistic regression equation is obtained as follows:

$$\ln \frac{P}{1-p} = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_k X_k \dots \dots \dots (2)$$

$$\ln \frac{P}{1-p} = -9,670 + 0,185PP + 0,123KPF + 0,126KM$$



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The first hypothesis states that knowledge of tax regulations has a positive effect on community participation in tax amnesty. Based on the results of the study that the respondents who participated in the tax amnesty program were 105 respondents or 71% while 42 respondents or 29% did not participate in the tax amnesty program, where in the table above the Exp B value of the variable knowledge of tax regulations is 1,203 with a significance of 0.001 and this indicates that if taxpayers who have knowledge of tax regulations, public participation in participating in tax amnesty will increase by 1,203 times compared to taxpayers who do not have knowledge of tax regulations. Then for a value of B of 0.185 this means that taxpayers who have knowledge of tax regulations have a positive relationship with community participation in tax amnesty compared to those who do not have taxation knowledge, so the results of this study accept the first hypothesis (H1). It can be concluded that the influence of knowledge of tax regulations has a significant effect on public participation in tax amnesty.

The second hypothesis states that the quality of fiscal services has a positive effect on community participation in tax amnesty. The exp (B) value of the fiscal service quality variable is 1.130 and this indicates that if the quality of the fiscal service is good, public participation in tax amnesty tends to increase by 1.130 times. This B value of 0.123 indicates that the quality of fiscal services has a positive relationship with community participation in tax amnesty. meanwhile the significance level of 0.014 is smaller than 0.05 (the significance level of 5%) so the results of this study accept the second hypothesis (H2). Thus it can be concluded that the quality of the fiscus service has a positive and significant effect on public participation in tax amnesty.

The third hypothesis states that moral obligation has a positive effect on community participation in tax amnesty. The results obtained for 147 respondents using logistic regression obtained regression coefficients shown in the table above that the moral liability variable with the value Exp (B) of the moral liability variable is 1,130 and this indicates that if there are moral obligations held by taxpayers, public participation for participating in tax amnesty tends to increase by 1,130 times compared to taxpayers who do not have moral obligations. For a B value of 0.126, it indicates that the moral obligation of the taxpayer has a positive relationship with increased public participation in taking the tax amnesty with a significance of 0.006 less than 0.05 (5%) so that the results of this study accept the third hypothesis (H3 ). So it can be concluded that moral obligation has a significant influence on community participation in tax amnesty.

### 5. CONCLUSION

Based on the results of testing the hypotheses described above, conclusions are, first for knowledge of tax regulations owned by taxpayers has a positive and significant impact on public participation in tax amnesty. The higher the taxpayer's knowledge of tax regulations, the higher the taxpayer to take an active role in the policies made by the government (tax amnesty). So that taxpayers always obey tax regulations and stop to avoid tax obligations in a legal way.

For the quality of fiscal services provided to taxpayers has a positive and significant impact on public participation in tax amnesty. The good service provided by tax officials can influence taxpayers to always participate in any policies made by the government. The better the services provided by the tax authorities to the taxpayers the higher the public participation in participating in the tax amnesty. Then the moral obligations of taxpayers have a positive and significant influence on public participation in tax amnesty. Taxpayers who have a high level of moral obligation will have guilt if they do not fulfill their tax obligations. So that the guilt can affect taxpayers to always participate and always be honest in fulfilling their tax obligations.

### LIMITATION AND STUDY FORWARD

There are several limitations to this research, Survey method with a questionnaire not an interview, variable and respondent cannot be generalized, so there is still potential for sampling error



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## STUDY ON SEVERAL DETERMINANTS OF OCCUPATIONAL CHANGE IN HOTEL: A REVIEW IN PALEMBANG

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### Abstract

This paper is a study on several determining variables of occupational change in hotel in the city of Palembang. The object of research is hotel employees with star ratings. The research sample was 200 respondents. Sampling was carried out using a purposive method. The analysis technique used is Binary Logit model. The results showed that there was an influence of the respondent's identity variables, namely age, gender, ethnicity-religion, marital status, number of dependents, employment status, current position, hotel classification, which simultaneously affected employee turnover. This also shows there is a simultaneous significant influence on the identity of the respondent on occupational change, while the rest is influenced by other variables not examined in this study.

**Purpose:** To find several determinants of the occupational change of hotel employees in Palembang City.

**Research Methodology:** Purposive sampling method, Binary Logit model, Quantitative method.

**Results:** According to the results of data analysis, it can be stated that first; the results showed that there was an influence of the respondent's identity variables, namely age, gender, ethnicity-religion, marital status, number of dependents, employment status, current position, hotel classification, which simultaneously affected employee turnover. The second ones; there is a simultaneous significant influence on the identity of the respondent on occupational change, while the rest is influenced by other variables not examined in this study.

**Limitations:** There are not many variables studied and cannot represent the whole research phenomenon, and the scope of the research is still limited.

**Contribution:** Hotel, University, Tourism.

**Keywords:** Occupational Change, *Hotels Employee*, *Binary logit model*.

### 1. INTRODUCTION

Job transfer is a serious problem. This is related to high labor turnover (Kumar et al., 2012; Mohsin and Lengler, 2015). Based on the opinion of defines work transfer as a process by which employees leave the organization. Furthermore, Dessler (2015) defines that changing jobs is the rate at which employees quit and leave the company, while Costello (2009) says that work transfers can be in the form of resignation, leaving an organizational unit, dismissal or death of organizational members.

Job transfer becomes a problem for companies when employees who have a good performance leave the company. The negative consequences that are felt due to work shifts in the company are the quality and ability to replace employees who leave, so it takes time and new costs to recruit new employees (Huselid, 2018; Gibson, Ivancevich, 2010).

The initial indication of a work shift is usually marked by the desire to move, which is commonly called an employee work change or an employee work change (occupational change). According to Zeffane (2003), Job transfer is the tendency or intention of employees to stop working from their jobs. The desire to leave the organization is generally preceded by employee intentions triggered by dissatisfaction. Furthermore Huang, Lawler, and Lei (2009) explain that work shifts are marked by various things related to employee behavior, including: increased absenteeism, laziness from work,



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increased courage to violate work rules, and the courage to oppose or protest against boss. This indication can be used as a reference for predicting employee work movements within a company.

Regarding the transfer of work to employees, it cannot be separated from the issue of wages or compensation. This compensation can also be interpreted as a form of company appreciation for employees' work contributions. Every worker has a difference in terms of: human capital and type of work, therefore requires different skills. This is also the same as the wages given because companies have different respect for a person's status and employers' attitudes towards workers (Nurlina, 2012).

The salary system for the hotel industry consists of a base salary and a service charge. The basic salary for hotel employees follows the Regional Minimum Wage (UMR) where the standard for City of Palembang is IDR 3,030,000. However, the amount of salary for hotel employees in City of Palembang is different and varies. The following is an overview of the salaries of employees working in the hotel sector which can be described in the Table of Wages in Hotel Industry.

Apart from the basic salary range, workers also receive a service fee. Service fees related to hotel workers are regulated in the Regulation of the Minister of Manpower of the Republic of Indonesia No.7 of 2016, which states that service fees are an addition to the previously set rates in the context of services in hotel businesses and restaurant in hotels and are income outside wages. However, the implementation of each hotel differs in its part system.

According to the Regulation of the Minister of Manpower of the Republic of Indonesia No. 7 of 2016 there are 3 divisions that can be done, namely: 1) equal distribution where the value of service charges received by each employee is the same amount between employees regardless of position and position, 2) equal distribution plus points, namely, Service charges that have been calculated and are ready to be divided where the value obtained will be redistributed, the first 50 percent will be distributed equally with the same value to all employees who are entitled to service charges, in this case the same as the calculation above, while the other 50 percent is divided among all employees based on points according to hotel management policies. 3) Distribution of points: a) Spiral, considering that the higher the position, the smaller the value of the service that will be received, while the position with the lowest position will receive the opposite value. b) Cone, the higher the employee's position at the hotel, the greater the service value he will receive, while the employee with the lowest position will receive a small service value, this is assumed from the amount of job responsibility, if the position held is higher, then more big risk.

Level	Wages ( IDR Million)		
	Star of The Hotel		
	(*****)	(****)	(***)
( 1 )	( 2 )	( 3 )	( 4 )
- R&F atau yang disebut Rank & File alias staff	UMK / UMK+	UMK / UMK+	UMK /UMK+
- Level D atau Supervisor	3.5 - 5.5	2.8 - 4.5	2.7 - 4
- Level C atau Assistant Manager	5.0 - 8.0	4.5 - 5.0	4 - 4.5
- Level B atau Assistant Dept. Head B	8.0 - 15	5 - 8.0	4.5 - 5.5
- Level A atau Dept. Head A alias Manager /HOD	10 - 23	7.0 - 18	5.0 - 6.5
- EAM alias Assistant GM	15 - 30	10 - 20	9.0 - 12
- GM atau Hotel Manager.	32 - 55	20 - 45	15 - 25

Source: Ministry of Manpower of the Republic of Indonesia, 2016

The growth of star hotels in Palembang City and the rapid movement of workers in the hotel industry need special attention, this is important so that it does not become a problem. Unfortunately, there are



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not many comprehensive studies on the causes of the increasing turnover of hotel employees in Palembang, so it is necessary to conduct an in-depth and comprehensive study of the factors that cause employee displacement. Likewise with the payroll system that is applied in every hotel. There are different possibilities. It is very interesting to do an in-depth study so that how much influence the wage system in hotels is applied to affect an employee's work shift and its relationship with hotel employee job satisfaction. This article discusses the several factors that cause job transfer of hotel employees in Palembang.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Transfer of employees is a problem that occurs in many companies in many developing countries. The high turnover rate of employees causes an increase in the company's burden for new recruits. In addition, every worker leaves the company after having increased experience and the level of efficiency he has. Change of work or transfer of employees in organizations is a phenomenon that will always develop in organizational life and many of them cause problems. In some companies, the turnover of employees has a negative effect in terms of both costs and loss of time and opportunities to take advantage of opportunities (Mobley, 1986).

Grensing (2006) state that the increase in employee turnover is caused by the displeasure of employees working at the company. The level of employee work movement (occupational change) can also occur because the number of workers required is much less than demand, where the emergence of new companies causes a higher rate of employee turnover.

The job model should be understood as a conceptual framework of theory and practice that addresses and relates research program models of human occupation. The systematics of these models develops mainly on the basis of the various phenomena and problems mentioned in the characteristics that occupational researchers may encounter in their field of practice. The work group model is an example of a phenomenon description based on employee work arrangements (Kielhofner, 1997). Employee work activities according to Kielhofner (1997) have four phenomena in the Model Of Human Occupation, including:

- a) Human motivation to work
- b) Activity behavior as routine and employee work habits
- c) The nature of skilled actualization based on skill
- d) The influence of the environment on organizational behavior

In the model, the work action or behavior of the human system as the main force is health, well-being, development and change (Kielhofner, 1995). This idea begins with the recognition that human systems are not static machines, but dynamic, living systems that require constant maintenance and reorganization. The job model emphasizes that the human system is carried out and shaped by the nature of its job behavior.

Rivai (2009) states that employees who are not satisfied with work or other factors related to their work will reduce their commitment to the organization or company. Their dissatisfaction is generally associated with performance degradation problems which include delays in work, high employee turnover and high absenteeism. The company must control the minimum willingness to leave employees. The first step in dealing with high intent to leave is to recognize that there is a problem in taking steps to determine what factors are causing the problem. Interviews for employees who leave are an excellent way to explore the reasons that made employees decide to leave their jobs (Kielhofner, 1995).

The following research shows the various reasons for employees to move to new workplaces: Surienty et al (2014) research entitled quality of work life and turnover intention: a partial least square approach, the results of the research show that quality of work life has a negative effect on turnover intention. Research by Wu, Shie and Gordon (2017) entitled impact of customer orientation on



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turnover intention: mediating role of emotional labor, the results of their research show that customer orientation is positively related to turnover intention and workers' emotions are used as intermediaries. Research by Ludiya (2016) on the effect of work life policies, work life conflicts, job stress and loneliness on turnover intentions at a private university in Batam City, the results of this study have a negative and significant effect on work life policies and job stress on turnover intentions. Research by Sheraz et al (2014) with the title antecedents of job stress and its impact on employee's job satisfaction and turnover intentions, the results of the study show that there is an effect of job stress, job satisfaction on turnover intentions. While Noor and Maad's (2008) research entitled Examining the relationship between world life conflicts, stress and turnover intentions among marketing executives in Pakistan, the results of the study show that there is a positive and significant effect between work life conflict and stress on turnover intention on marketing executives. The results of these studies form the basis of this paper.

This paper is written to examine Age, Gender, Ethnic-Religion, Marital Status, Number of Dependents, Employment Status, Current Position, Hotel Classification of the hotel employees in the city of Palembang. The focused is on the shift of work to job positions or hotel worker positions in the study area of Palembang City.

The hypothesis is formulated as follows:

Age, Gender, Ethnic-Religion, Marital Status, Number of Dependents, Employment Status, Current Position, Hotel Classification have an influence on hotel worker occupational change in Palembang City.

### 3. RESEARCH METHODOLOGY

This research discusses the relationship between wages, human capital and work conflicts on occupational change of hotel workers in Palembang. This research design uses a quantitative approach. Specifically, the research design begins with identifying problems. After the problems have been identified, the objectives and benefits of the research are described as a guide in conducting the research.

The data in this study are primary data and secondary data. Primary data in this study were direct interviews with the General Manager to see the vision and mission of the hotel and the Human Resources Manager. While the secondary data used is information about hotels which is hotel data owned by BPD PHRI South Sumatra and the Tourism Office, as well as hotel growth statistics data in Palembang City.

Data collection in this study was conducted using a survey based method, after the determination of the sample of respondents was carried out according to the procedure. Primary data was obtained by structured interviews using questionnaires and in-depth interviews with selected respondents. Secondary data is obtained through literature study of various references such as textbooks, publication of annual reports, publication of official company documents, journals, magazines, and articles related to this research.

The analytical tool used is Binary logistic regression. It is a data analysis method used to find the relationship between the response variable (Y) which is binary or dichotomous and the predictor variable (X) which is polycotomous (Hosmer and Lemeshow, 2000). The output of the response variable Y consists of 2 categories which are usually denoted by Y = 1 (success) and Y = 0 (failure). Hosmer and Lemeshow (2000) explain that a logistic regression model is formed by stating the value of P (Y = 1|X) as p (x) which is denoted as follows:

**If Y is given 0 and 1,**

$$\text{then } P(Y = 1 \mid X = x_i) = \pi(x_i) \text{ and } P(Y = 0 \mid X = x_i) = 1 - \pi(x_i)$$



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The expected value of  $(y | x_i)$  is  $E(y_i | x_i) = \pi(x_i)$

Wald test is used to test the significance of each parameter. The partial test results will show whether a dependent variable is eligible to be included in the model or not. Furthermore, according to Nachrowi and Usman (2006), the test for the significance of individual parameters is carried out using the Wald Test with the following hypothesis formulations:

**H<sub>0</sub>:  $\beta_i = 0$  (logit coefficient is not significant for the model)**

**H<sub>1</sub>:  $\beta_i \neq 0$  (the logit coefficient is significant to the model)**

The odds ratio is related to the value of each predictor. The odds of an event are defined as the probability of an outcome occurring divided by the probability that an event does not occur. In general, an odds ratio is the set of odds divided by the other odds. The odds-to-predictor ratio is defined as the relative number in which the probability of the outcome increases (odds ratio > 1) or decreases (odds ratio < 1) when the value of the predictor variable increases by 1 unit. The odds ratio is defined as:

$$\Psi = \exp = (i) = \exp [g(1) - g(0)]$$

The interpretation of this odds ratio is the tendency for  $Y = 1$  at  $X = 1$  to be  $\Psi$  times compared to  $X = 0$ .

For cumulative odds, according to Nachrowi and Usman (2006), the cumulative probability  $P(Y \leq r | x_i)$  is defined as

$$P(Y \leq r | x_i) = \pi(x) = \frac{\exp\left(\beta_{0r} + \sum_{k=1}^p \beta_k x_{ik}\right)}{1 + \exp\left(\beta_{0r} + \sum_{k=1}^p \beta_k x_{ik}\right)}$$

Where  $X_i = (X_{i1}, X_{i2}, \dots, X_{ip})$ , is the value of the  $i$  observation ( $i = 1, 2, \dots, n$ ) of each predictor variable. Estimation of regression parameters is carried out by describing them using the logit transformation of  $P(Y \leq r | X_i)$ .

## 4. RESULTS AND DISCUSSIONS

Provide logical, and scientific analysis of findings of the study. Present evidences to support your analysis by citing work of earlier researchers or existing theories.

Results for this analysis.

Omnibus Test of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	572,436	8	,000
	Block	572,436	8	,000
	Model	572,436	8	,000

Source: Data processed by researchers, 2020

The model value is  $572,436 >$  The df table value, on DF 8 is 15,507 or with a significance of 0,000 ( $< 0.05$ ) so that it rejects  $H_0$ , which indicates that the addition of independent variables can have a real effect on the model, or in other words the model is declared fit.



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It should be noted that the Ordinary Least Square to test the simultaneous significance uses the F test, while the logistic regression uses the Chi-Square value of the difference between -2 Log likelihood before the independent variable enters the model and -2 Log likelihood after the independent variable enters the model. This test is also called the Maximum likelihood test.

So that the answer to the hypothesis of the simultaneous influence of the independent variable on the dependent variable is to accept H1 and reject H0 or which means that there is a simultaneous significant influence on the identity of the respondent on employee work movement because the p value of Chi-Square is 0,000 where  $< \text{Alpha } 0.05 \text{ or value Chi-Square Count } 572,436 >$  Chi-Square table 15,507

For model r square, we use pseudo r square for analysis

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	,000 <sup>a</sup>	,410	,710

Source: Data processed by researchers, 2020

The Model Summary table is used to see the ability of the independent variable to explain the dependent variable. For this reason, the values of Cox & Snell R Square and Nagelkerke R Square are used. This value is also called the Pseudo R-Square or if linear regression (OLS) is better known as the R-Square. The Nagelkerke R Square value is 0.710 and Cox & Snell R Square is 0.410, which indicates that the ability of the independent variable to explain the dependent variable is 0.710 or 71% and there are  $100\% - 71\% = 29\%$ , the value of 29% is another factor outside the model which describes the dependent variable.

Based on the results, the variables studied have an influence on occupational change of hotel employees in Palembang, with the proportion reaching 71%, and this influence is measured simultaneously.

### DISCUSSIONS

The results showed that there was an influence of the respondent's identity variables, namely age, gender, ethnicity-religion, marital status, number of dependents, employment status, current position, hotel classification, which simultaneously affected employee turnover. Based on Longhi and Brynin's (2009) research, with their research variables namely age, gender, marital status, number of family members, education, expertise, work routine have an effect on employee turnover. Likewise, employee job satisfaction also affects occupational change.

### 5. CONCLUSION

Conclusion for this research, There is a simultaneous significant influence on the identity of the respondent on occupational change, while the rest is influenced by other variables not examined in this study.

### LIMITATION AND STUDY FORWARD

There are not many variables studied and cannot represent the whole research phenomenon, and the scope of the research is still limited. Further research on other important variables should be carried out in order to obtain a complete explanation of the phenomena that occur.



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## META ANALYSIS STUDY: EMPLOYABILITY SKILLS IN NOVICE WORKERS FOR REDUCING UNEMPLOYMENT LEVELS

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### Abstract

**Purpose:** The purpose of this study is to examine the employability skills as competencies for novice workers when applied to several levels of education.

**Research Methodology:** The research method used in this research is quantitative descriptive method using meta-analysis method by reviewing several articles in national journals and international journals.

**Results:** The results of this study concluded that employability skills are very influential if employability skills are used on students at the high school or vocational school and undergraduate students.

**Limitations:** This research is related to students, university students, and company employees.

**Contribution:** This research can be used in secondary education institutions and higher education institutions.

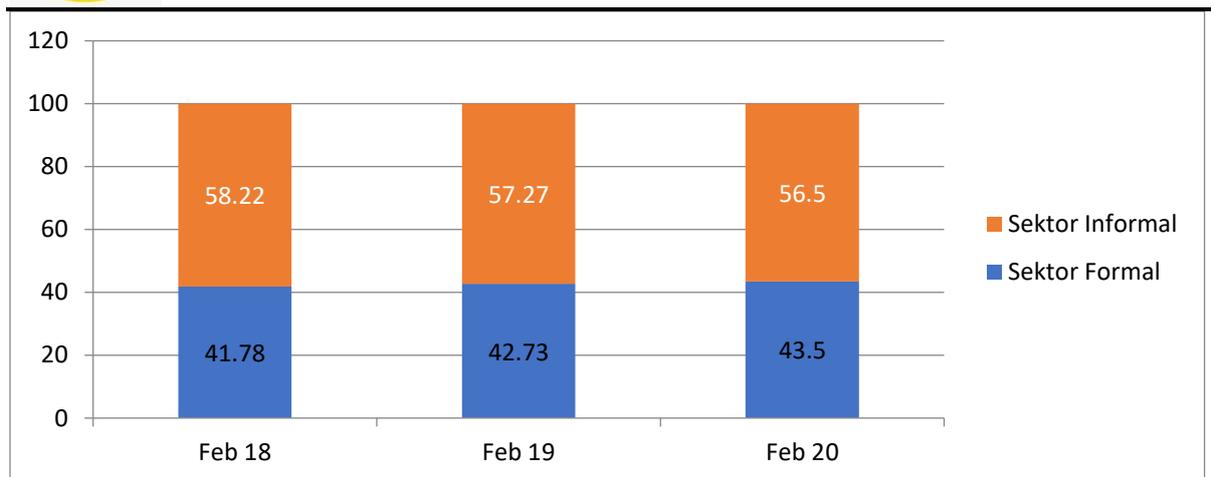
**Keywords:** *employability skills, work ability, skills*

### 1. INTRODUCTION

Fulfilling the needs of work for individuals requires support from various aspects. The development of the global economy, information and communication technology demands a level of competence capable of adapting quickly to these changes and developments. Many job opportunities have been released due to a lack of meeting the required competencies, especially during the current global pandemic. According to the Big Indonesian Dictionary (KBBI) a pandemic is interpreted as an epidemic that has spread simultaneously everywhere covering a large geographical area. The current pandemic is the Corona Virus Disease 2019 (Covid-19) Pandemic. The Covid-19 pandemic which has been taking place since the beginning of 2020 has hit the world economy, including in Indonesia. Based on data from the Ministry of Manpower and BPJS Ketenagakerjaan, there are 2.8 million workers who were directly affected by Covid-19, consisting of 1.7 million formal workers laid off and 749.4 thousand laid off and 282 thousand informal workers whose businesses were disrupted. The Indonesian Monetary Fund (IMF) also projects an increase in Indonesia's unemployment rate, namely 5.3% in 2019 to 7.5% in 2020. This condition illustrates that the labor market is increasingly difficult to penetrate with standard competencies. The fundamental problem is the competence and expertise of graduates who do not meet the requirements as expected by the industry (Rahmawati, 2015). Companies will be more selective in choosing job candidates. In Indonesia there are more informal workers than workers in the informal sector. Reporting from data from the Central Statistics Agency, there has been a decrease in the number of informal workers from 2018 to 2020 as follows.



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**Figure 1 Percentage of Total Workers in Indonesia**

Source: Badan Pusat Statistik (refer to SAKERNAS data for February 2020)

Various aspects are needed in showing the competence of workers, including the employability skills that workers must have. The Mayer Committee study, furthermore the Business Council of Australia and the Australian Chamber of Commerce and Industry (BCA / ACCI) in 2002 in Rahmawati (2015) conducted a more comprehensive study of the skills that many workers need in order to be successful in a career. The results of this study obtained a number of key skills known as employability skills. Employability skills were first introduced by William Beveridge in his book entitled “Unemployment: A Problem of Industry” explaining that employability skills were first used to identify differences between someone who can be employed and who cannot be employed (Misra & Khurana, 2017). McQuaid and Lindsay (2005) say that the term employability skills is used in various contexts and has been discussed in several literatures that have become the center of attention in international media. The Conference Board of Canada (CBC, 2000) defines employability skills as a term used to describe the individual skills and qualities that employers will want for novice workers when they start working.

Employability skills help someone to get a job and carry out the role of an employee in a job (Lowden et al, 2011). Employability skills will help someone to easily return to the world of work and get another job when they quit or are laid off (Brewer, 2013). Employability skills have become increasingly important since the economic crisis, because the economic crisis makes it more difficult for a person to find work and keep working (Sanders & Grip, 2003). Economic growth is realized when the productivity of people and companies in the country is high. Employability skills are required for success at all levels of the workforce and all levels of education (Overtoom, 2000). In today's world of work, competencies such as employability skills are very much needed by various workers, both formal and informal workers, and old or new workers. However, when viewed from the perspective of experience, employees who already have work experience can have superior competence compared to novice workers so that the context in this study is more narrow to novice workers. Erica Smith and Paul Comyn (2003) said that employers found a number of positive attributes among novice workers, but also some negative attributes. They also said start-up workers were often shy and unwilling to ask questions, they didn't understand the impressions they made on other workers, and they sometimes lacked basic skills such as the need to keep the work environment clean. there is an increasing need for employability skills that must be possessed by job seekers and employees (Rahmawati, 2015).

Various study findings that at first seemed contradictory and difficult to accumulate eventually became more integrative and systematic with meta-analysis (Widiastuti, 2002). Meta-analysis can be quantitative and statistical analysis to obtain a series of information derived from a number of data from previous studies (Sukanto, 1988). Meta-analysis is a development technique that can help



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researchers to find the consistency of cross-reviewing the results of research (Boisandi and Darmawan, 2017). Thus the integration of various study findings becomes a solid foundation for theory development as well as decision making and policy making (Widiastuti, 2002). Based on these descriptions, this study aims to analyze the employability skills in terms of employees, college students, or high school students.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Employability skills are a specific part of what is known more broadly as generic skills. Employment skills are the general skills required to succeed in the labor market at all levels of employment and in all sectors. Employability skills in Indonesian are usually called Work Skills. These skills are generic skills that are required to be applied in a variety of jobs and are prepared to enter the work environment (M. Bakrun, 2018). OECD in M. Bakrun (2018) identified 4 (four) generic competencies in employability skills, namely:

1. Multi-function - competencies are required to have varied scope and are very much needed in everyday life.
2. Relevant across many fields - this competency must be relevant for participation in industry, education, training, politics, social networking and interpersonal relationships, as well as family life and the development of sensitivity to social life.
3. Relates to the demands of mental complexity - assumes a mental anatomy that includes an active and reflective approach to life; and
4. Multi-dimensional - consists of: know how, analytical, cultural and communication skills, and communication.

Employability are individual characteristics related to employability and the desire to remain attractive in the labor market (Sanders & Grip, 2003). Another opinion states employability skills as skills that are relevant to various fields of work and professions are basic skills and are generic in nature, but are very useful in helping everyone enter the world of work (Cassidy, 2006). In a study conducted by Muhammad Sattar Rasul et al (2009) examined the important aspects of employability skills required by the manufacturing industry today by involving 107 industries. Overall, this study obtained results of 72.5% in the employability skills aspect at an important and very important stage. and only 7.5% is considered less important. Research conducted by Mohd Yusof Husain et. al. (2010) examined the importance of the employability skills of engineering graduates from an employer perspective consisting of 180 employees in various engineering fields at Peninsular Malaysia. The results obtained in research by (Mohd Yusof Husain et. Al., 2010) show the importance of employability skills at a high level where employability skills must be possessed by all graduates to enable them to compete in the global market. Research reviewed by Bayu Srianom et.al. (2019) shows that there is an increase in job absorption through the employability skills program in the 2019 Denso lecturer regular program, which is 60%, meanwhile this figure shows significant results compared to without the employability skills program in the last 3 years.

The United Kingdom Confederation of British Industry in Rahmawati (2015) defines employability skills as qualities and competencies that a person must have in order to match the changing needs of employers and customers, and thus help realize aspirations and potential in the workplace (NCVER, 2003: 6). Employers in the industrial sector argue that the aspect of 'employability' is important and needs to be possessed by their workers (Rasul et.al., 2009). The results of the study by Rasul et.al (2009) show the aspects of proficiency that are prioritized by employers in the world of work and can be used as a guide for technical graduates as supplies to enter the realm of work, and can guarantee the job, and educational institutions also need to emphasize fostering 'employability' skills in the teaching and learning process so that graduates who are issued are not only complete with technical skills but also with 'employability' skills.

Gurvinder and Sharan (2008) in Mohd Yusuf Husain done a study on the perceptions of employers concerning the employability skills needed in the job market and graduates' perception of the



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employability skills that they currently possessed. Eleven variables that make up employability skills based on past research were examined in this study. However, only seven factors, which were the result of factor analysis, were considered. The results of this study revealed that employers preferred to hire graduates from public universities. Moreover, graduates and employers placed similar importance in terms of the ranking of employability skills, where both employers and graduates perceived the order of importance of employability skills to be the same. However, there was a difference between employers' and graduates' perceptions for all seven employability factors, where employers rated graduates much lower in terms of mean rank. The results of this study also suggest that younger employers tend to be more favorable to graduates' employability skills. The higher the job position of the employer within the organization, the higher are the expectations of graduates.

The International Labor Organization (ILO) defines employability skills as skills, knowledge, and competencies that increase a person's ability to find and maintain a job, develop in the workplace, and be able to deal with change, get another job if he wants to quit or be laid off and can return to the world of work easily at different times of its life cycle (Cleary et al, 2006; Brewer, 2013). Meanwhile, Spencer & Spencer (1993) job competence is a basic characteristic of a person that indicates how to think and act for various situations and for a long time (Rahmawati, 2015).

Based on the results of research and discussion reviewed by Dewi Noviyanti and Rediana Setiyani (2019), it was found that self-concept, industrial work practices, and career guidance had a direct influence on job readiness and employability skills. In accordance with the opinion of Santrock (2003) states the importance of having work and work readiness for students to change careers, then according to Wall (2007) states that attitudes and work readiness also greatly influence a graduate to get a job (Rahmawati, 2015). This is in accordance with what is expressed according to Pool and Sewell (2007) in Rahmawati (2015), to have high work readiness it requires several things, namely expertise in accordance with the field, broad insight, understanding in thinking, and a good personality that makes a person choose. and feel comfortable with his job so as to achieve success. In addition, research by Fika Syarah Utami shows that there is a significant relationship between self-esteem and employability skills in employee class students at Mercubuana University, Jakarta. However, it is necessary to align the understanding of the views about employability skills between graduates with the view of industrial needs. This is shown in the results of research conducted by Fitri (2009) that the perception of SMK students is lower than the employability skills criteria required by the industry, with the highest gap, namely the ability to work under pressure.

According to the results of a study by the American Institutes for Research in M. Bakrun (2018), employability skills, which can be taught through the education and workforce development system, are divided into three broad categories:

1. Effective Relationship, namely interpersonal skills and personal qualities that enable individuals to interact effectively with clients, colleagues, and supervisors.
2. Workplace skills, namely the analytical and organizational skills and understanding that employees need to successfully perform work tasks.
3. Applied Knowledge, namely the wise integration of academic knowledge and technical skills, which is put to practical use in the workplace.

Robinson (2000) in Rahmawati (2015) divides employability skills into three skill groups which include: (1) basic academic skills, (2) higher-order thinking skills, and (3) personal qualities. According to The Conference Board of Canada (2000), employability skills consist of:

1. Fundamental Skills, namely the skills needed as a basis for further development. These skills consist of communication skills, the ability to manage information, and use numbers.
2. Personal Management Skills, namely personal skills, attitudes and behaviors that encourage a person's potential to grow. These skills consist of the ability to show positive attitudes and behavior, have a sense of responsibility, be adaptable, desire to learn continuously, work carefully, think and solve problems.



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3. Teamwork Skills, namely the skills and attributes needed to increase productivity. This skill consists of the ability to work with groups and be able to participate in tasks.

Furthermore, it was also revealed by Robinson that other things that are more important for success in work besides having good basic academic abilities, also having good higher-order thinking skills. The ability to think, argue, and make decisions is crucial for workers to be able to work well. Someone who can think critically, act using logic, and evaluate situations in making decisions and solving problems, is a very valuable labor asset.

In a study conducted by Mahyuddin who examined the value of employability skills in extracurricular activities, personal management skills and teamwork skills of students at SMK Negeri 1 Takalar, it was found that there was a significant influence between extracurricular activities on Personal Management Skills and Teamwork Skills for class X students of all Skills Competencies in SMK Negeri 1 Takalar.

Based on research conducted by McQuaid and Lindsay (2005) there are three factors that can affect employability skills, including:

- a. Individual Factor  
Individual factors are personal attributes that determine a person can be employed or not. This factor consists of demographic characteristics, namely age, gender, race, which can affect motivation and abilities when doing certain jobs. Then personal competences, namely self-motivation, self-confidence, physical and mental health, education and work experience.
- b. Social Relations Factor (Social Relations Factor)  
Social relations factors are factors related to socio-economic factors, such as family conditions and work culture. This factor can affect the ability, desire or social pressure of a person to take job opportunities. A person who gets a boost from his family in the job search process can increase his employability skills in seeing career opportunities. Family circumstances include marital status or having a responsibility to care for family members.
- c. Contextual Factor  
Contextual factors are factors that are related to conditions outside of a person, namely job sequence, work culture, organizational characteristics, recruitment and technology. Job demands are factors related to location, centrality and level of competition. This can affect job opportunities and recruitment systems. Organizational characteristics relate to the remuneration system, working hours, opportunities for growth and promotion. The recruitment system implemented by an organization can also affect employability skills, recruitment procedures and informal networks. Then work culture has a considerable influence on employability skills, which can provide encouragement for someone who influences attitudes to increase employability skills.  
The BCA / ACCI report also proposes an employability skills framework consisting of eight main skill groups and a number of personal attributes. The eight main skill groups include: (1) communication skills, (2) teamwork skills, (3) problem solving skills, (4) skills in taking initiatives and doing business, (5) planning and organizing activities skills, (6) self-management skills, (7) learning skills, and (8) technology use skills (BCA / ACCI, 2003 in Rahmawati).

Meanwhile, the Enhancing Student Employability Co-ordination Team (ESECT) in M. Bakrun (2018) is a collection of skills, knowledge and personal attributes that make a person safe to succeed in his position so as to provide benefits for himself, the world of work, and the economic community. general (Yorke, 2006). and according to M. Bakrun (2018) in his book *Employability Skills for SMK*



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Graduates and Their Relevance to the Needs of the World of Work, personal attributes that contribute to overall employability skills are as follows:

- a. Loyalty - loyalty to a commitment or obligation, a strong feeling of support or loyalty
- b. Commitment - initiating an action and finishing it to completion
- c. Honesty and integrity - high moral and professional standards, fairness and truth for oneself and others
- d. Enthusiasm - a strong and deep interest
- e. Reliability - the ability to be trusted to do what you have been asked to do, or what you have promised to do
- f. Personal presentations - paying attention to the way you present yourself, taking into account what clothing is appropriate for the company, etc.
- g. Common sense - the ability to make sound decisions based not only on knowledge but also on sound judgment
- h. Positive self-esteem - feeling good about yourself and your abilities by having confidence and belief in what you can do
- i. Sense of humor - the ability to join in with others and enjoy or express what is funny
- j. A balanced attitude to work and life at home - the ability to give equal importance to things that are important at home and at work
- k. Ability to deal with pressure - the ability to manage your time well, so that work and tasks do not accumulate and you are able to do / cope with the demands of work
- l. Motivation - feel positive about the work you do by setting long-term and short-term goals and continuing to work toward them
- m. Adaptation - feels comfortable changing your thoughts and actions to suit different conditions or situations.

The opinion of M. Bakrun (2018) in his book *Employability Skills for SMK Graduates and Their Relevance to the Needs of the World of Work* is evidenced by research conducted by Yuli Atika (2020) regarding the effect of employability skills on job readiness of Nurul Falah Vocational High School students in Pekanbaru City, the results show that employability skills an effect of 43.7% on work readiness of the Nurul Falah Vocational High School students in Pekanbaru City. In line with Dewi Noviyanti and Rediana Setiyani's (2019) research, it is concluded that students should have equality with others so that students are more confident and do not feel inferior, that is, schools should provide motivation so that students are more active in learning and practicing to improve student knowledge and skills.

Meanwhile, research by Dani Rahman Hakim and Euis Nessia Putri analyzed the effect of learning achievement, ICT Skills, internships, and competencies on employability skills. The results showed that learning achievement and ICT Skills did not significantly influence employability skills, while internship and competence had a positive and significant effect. The employability skills and employability skills have a positive and significant effect on competitiveness. From this research it can be understood that until now competence has not been a determining factor in increasing student competitiveness so that the Government should formulate new formulas that can equip students with competence and employability skills.

### Strategies for Developing Employability Skills

According to Erica Smith and Paul Comyn (2003) the formal processes that companies use to develop employability skills include recruitment and induction, buddy systems, mentoring, company socialization, training of all types, placing beginner workers with supervisors who are accustomed to managing beginner workers, staff meetings, staff appraisal and performance appraisal systems, conflict management, disciplinary approaches, task rotation, allocating increased responsibility, and individual interactions. From the research conducted by Riadoh Lubis (2019) which examined the Work Training Center in improving the quality of human resources and reducing unemployment in Mandailing Natal, it was found that the quality of human resources had increased because the



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Government provided training to the community, especially those who did not have a job so that the unemployment rate decreased by 60%.

Developing human resources at this time is something that should be done. This is because students' knowledge, skills and attitudes can develop over time. According to Robinson (2000) there are 6 ways that can be done to develop employability skills in fresh graduate students, including:

1. Employability skills are skills that can be taught and developed, so that students can be taught about employability skills through both the educational environment and the work environment. Therefore, it is necessary to set goals, objectives and design appropriate actions in the process of teaching the employability skills of these students.
2. The need for the involvement of parents of students in setting goals, and can provide a good example of good employability skills from an early age.
3. Using a democratic approach in the teaching process of employability skills to students, so as to increase student awareness of the values, attitudes and responsibilities as an employee.
4. Teachers, supervisors and trainers can provide good examples related to the employability skills needed. The need for students to be able to observe directly the skills needed in the workplace.
5. The need to hold real work activities, so that students can see firsthand what skills are needed by a worker.
6. Setting high goals for students related to employability skills, so that students can be responsible for their own behavior.

### The Employability Skills Development Model

Six models of employability skills development include (Erica Smith and Paul Comyn, 2003), namely:

1. Comprehensive training systems: systems for developing technical skills are also generally effective for developing employability skills.
2. Regular team meetings: these involve new workers in the organization and can also be used specifically to address the employability skills associated with all staff not just new staff.
3. Performance management approach: the performance management system for novice workers puts forward employability skills, and performance indicators for managers to prioritize their role in developing employability skills for novice workers.
4. Third party approach: exemplified by group training companies but not limited to group training companies, third parties can provide additional resources for developing employability skills as well as intervening in difficult situations.
5. Buddying or mentoring systems: pairing novice employees with either a colleague or a more senior member of staff is very effective, as long as the co-workers are carefully selected.
6. Supportive environment: whatever formal system is in place, one of the most important features of a workplace where the employability skills are well developed includes a supportive environment. Tolerance and respect are two key factors.

### The Dimension of Employability Skills

According to Fugate, Kinicki & Ashforth (2004), employability skills consist of three dimensions that focus on personal characteristics, namely career identity, personal adaptability and social and human capital. The three dimensions are a single unit that forms the employability skills. The following is a further explanation of the three dimensions:

1. Career Identity  
Career identity is a form of representation of a person about himself in his career life, including who he is at present and in the future based on past and present events. More clearly, career identity is a self-description of hopes and goals, fears, personality, norms and self-values, and interaction styles. Career identity is the strongest basis for cognition and affection of employability skills. Cognition and affection of career identity can distinguish each person in terms of characteristics, knowledge, abilities and skills. Of the three



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dimensions of employability skills, career identity is the dimension that plays the biggest role in the job search process according to McArdle et al in Fugate (2004). This is because career identity can make it easier for someone to identify career opportunities and act as a guide for someone to motivate himself to develop employability skills in himself.

2. **Personal Adaptability** Personal adaptability is a person's adaptability to be able to adapt to the demands of the surrounding environment. A person who is easy to adapt is able to change personal factors within himself to suit the demands of the surrounding environment. Personal adaptation is determined by the differences of each individual in facing challenges in a situation, because basically every individual has different motivations. Personal adaptation itself consists of five components, namely optimism, tendency to learn, openness, internal locus of control and generalized self-efficacy. A person who has these five components has high employability skills. The explanation of the five components is as follows:
  - a. **Optimism.** Optimism is a positive view of events that will occur in the future and shows confidence in the ability to control challenges objectively and affectively. An optimistic person has the urge to be able to see career opportunities, see change as a challenge and be able to survive to achieve the desired goals. Therefore, optimism has a role as a source of encouragement for a person to be active and adaptive in achieving employability skills and career development.
  - b. **Inclination to Learn.** The tendency to learn is also a major determinant for someone in achieving career success. Someone who has high employability skills is someone who is able to be proactive in working to learn and understand their environment, so that they are able to see threats and job opportunities. In addition, someone with a learning tendency is able to see what things are needed in a job, so that they can adjust their interests and self-profile.
  - c. **Openness.** Someone who has openness in the adaptation process will tend to be flexible in facing challenges and situations that are not clearly described, and be able to remain comfortable in these situations. In addition, they are also able to view new experiences and changes that occur as challenges to be able to move forward, not as threats, including new technologies and processes that apply to their work. Someone who is able to be open to new experiences and changes that occur will be easier to adjust and have better employability skills than those who are not.
  - d. **Internal Locus of Control.** Internal locus of control is a person's perception that he is capable of influencing events, things or situations around him.
  - e. **Generalized Self-efficacy (GSE).** Ashforth & Taylor (in Fugate, Kinicki & Ashforth, 2004) say that self-efficacy is an important internal condition needed to be able to adapt to the surrounding environment effectively. Generalized self-efficacy is a representation of a person's perception and assessment of his ability to be able to do something in various situations. Generalized self-efficacy is an important dimension in personal adaptation, because career opportunities will be identified more clearly and clearly.
3. **Social and Human Capital**

Social capital or social capital is capital associated with social networks. In employability skills, social capital contributes to elements of social and interpersonal openness. In the context of work, social capital is access to information and the influence of social relations. Higgin & Kram (in Fugate, Kinicki & Ashforth, 2004) say that social capital is influenced by two important things, namely the size and strength of the network. The size of the network or not will affect the amount and use of information, as well as the effect itself on job opportunities. The strength of the network shows how much solidarity and reciprocity is formed. The benefits and effects of social capital on employability skills will be evident from one's behavior when looking for work. Someone who is able to develop social capital well will tend to use informal relationships to find work. Human capital is a person's ability to be able to meet organizational expectations regarding performance work. Human capital consists of several aspects that affect a person's career development, namely education and work experience, cognitive understanding and abilities, and emotional intelligence. Human capital



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also affects a person's ability to be aware of available job opportunities. Krichmeyer (in Fugate, Kinicki & Ashforth, 2004) says that from these aspects of human capital, education and work experience are the most powerful factors in one's career development.

### 3. RESEARCH METHODOLOGY

The research method used in this research is quantitative descriptive method using meta-analysis method by reviewing several articles in national journals and international journals. Meta-analysis is quantitative in nature because it uses numerical calculations and statistics for practical purposes, namely to compile and extract information from a large amount of data that is impossible with other methods. Meta analysis is an attempt to summarize various research results quantitatively (Nawawi, 2007; Sutjipto, 1995). This meta-analysis study used a sample of 10 articles in national journals about employability skills. The distribution of the 10 articles of research subjects can be seen in the groups in the following table.

**Table 1. Distribution of 10 articles**

Information	Educational Stage	Data Analysis Technique	Sampling Method
SMK / SMA	4		
Diploma student	1		
Undergraduate Students	1		
Employees	4		
Path Analysis		3	
Descriptive Analysis		4	
SCANS model		2	
Simple Linear Regression		1	
<i>Cluster Sampling</i>			1
<i>Sampel Jenuh</i>			6
<i>Insidental Sampling</i>			1
<i>Simple Random Sampling</i>			2
<b>Total</b>	10	10	10

Coding (coding) in meta-analysis is the most important requirement to facilitate data collection and analysis. The information required is the level of education in the research subject, data analysis techniques, and sampling methods. Furthermore, data collection steps are carried out, including:

1. Identify the research variables, then enter them in the appropriate variable column,
2. identification of the mean and standard deviation of the experimental and control group data for each subject / sub research,
3. calculating the effect size using the Glass formula based on the mean and standard deviation, namely by finding the effect size ( $\Delta$ ) by dividing the difference between the experimental group mean (XE) and the control group mean (XK), with the control group standard deviation (SK). ). The formula is:

$$\Delta = \frac{x \text{ experiment} - x \text{ control}}{SD \text{ control}}$$

with the following effect size criteria:

- *effect size*  $\leq 0,15$  negligible effect
- $0,15 < \textit{effect size} \leq 0,40$  small effect
- $0,40 < \textit{effect size} \leq 0,75$  moderate effect
- $0,75 < \textit{effect size} \leq 1.10$  high effect
- $1.10 < \textit{effect size} \leq 1,45$  very high effect
- $1,45 < \textit{effect size}$  high influence

## 4. RESULTS AND DISCUSSIONS

The results of calculations based on a study of 10 articles obtained the following results:

a. Based on Education Level

**Table 2. Meta-Analysis Calculations Based On Education Level**

No	Jenjang Pendidikan	$\Delta$
1	SMK / SMA	0,94
2	Diploma student	0,24
3	Undergraduate Students	0,96
4	Employees	0,56

The results of the meta-analysis of employability skills for workers based on education level found that employability skills had a high positive effect on novice workers when applied to vocational / high school students, employability skills had a very low effect on novice workers when applied to Diploma students, employability skills have a high positive effect on novice workers when applied to undergraduate students, and employability skills have a significant effect on novice workers when applied to the employee level.

b. Based on data analysis techniques

**Table 3. Meta-Analysis Calculations Based On Data Analysis Techniques**

No	Teknik Analisis Data	$\Delta$
1	Path Analysis	0,63
2	Descriptive Analysis	0,74
3	SCANS model	1,09
4	Simple Linear Regression	1,02

If the meta-analysis of employability skills is calculated based on data analysis techniques, the results show that the employability skills of workers have a significant effect if calculated using path analysis techniques, employability skills in workers have a sufficiently influential effect if calculated using descriptive analysis techniques, employability skills for workers. has a very high positive effect when calculated using the SCANS technique, and employability skills in workers has a very high positive effect when calculated using simple linear regression techniques.

c. Based on the Sampling Method

**Table 4. Meta-analysis calculations based on the sampling method**

No	Metode <i>Sampling</i>	$\Delta$
1	<i>Cluster Sampling</i>	0,24
2	Sampel Jenuh	0,80
3	<i>Insidental Sampling</i>	0,29
4	<i>Simple Random Sampling</i>	0,87

The results of the meta-analysis of employability skills for workers based on the sampling method show that there are employability skills that have a very low effect on novice workers when the calculation is applied using the sampling method of cluster sampling, employability skills have a high effect on novice workers when the calculation is applied using the saturated sample method. , employability skills have a very low effect on novice workers when the calculation is applied using the incidental sampling method, and employability skills have a high effect on novice workers when the calculation is applied using the simple random sampling method.



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Based on the results of the calculations above, it can be concluded that employability skills have a positive effect on novice workers seen from the level of education, use of data analysis techniques, and calculation of the sampling method. From the calculations based on the level of education, the results show that employability skills have a high positive effect on novice workers when applied to vocational / high school students and undergraduate students, employability skills have a significant effect on novice workers when applied to the employee level. sufficiently influential on novice workers when applied at the employee level, while employability skills have a very low effect on novice workers when applied to Diploma students. Research by Prihastuti and Kokom Komariah (2009: 34) in Rahmawati (2015) shows that based on the order of priority in general, the competencies needed by DUDI in the Culinary field are first, attitude, second appearance / performance, third knowledge, and four skills. In this case there is no specific mention of employability skills.

The calculation based on data analysis techniques shows that the employability skills of workers have a significant effect if it is calculated using path analysis techniques and descriptive analysis techniques, employability skills for workers have a very high positive effect when calculated using the SCANS technique and simple linear regression techniques.

While other calculations based on the sampling method show that the employability skills have a high effect on novice workers when the calculations are applied using the saturated sample method and the simple random sampling method, while the employability skills have a very low effect on novice workers when the calculation is applied using the cluster sampling method and incidental sampling method.

### 5. CONCLUSION

From the results of the meta-analysis in this study, it is concluded that employability skills are very influential when employability skills are used for students at high school or vocational school and undergraduate students. This is because at this level of education, prospective beginner workers are focused on preparing themselves as employees where the Vocational High School (SMK) is one of the institutions that prepares a workforce with professional skills and attitudes as expected by the business world or the industrial world.

In addition, the employability skills of workers have a very high positive effect if it is calculated using the SCANS technique and simple linear regression techniques and when the sample data collection uses the saturated sample method and the simple random sampling method.

Employability skills are indeed skills that companies want because they can get something they want from an employee. These skills are what they believe will equip employees to carry out their roles in the best possible way. Job ability depends on a person's knowledge, skills and attitudes, how someone uses these assets, and how someone can present those skills (M. Bakrun, 2018).

### LIMITATION AND STUDY FORWARD

This study has several limitations. First, this study discusses job skills in which these aspects are small in terms of skills or competencies. Second, this study refers to novice workers with the object of research being novice workers where the application of work skills aspects is applied starting from high school, undergraduate, and employee education levels. Third, this study has not applied a specific research object.

It is hoped that in further research, researchers can try based on a company or educational institution in research data. It remains an open question, whether job skills can be accessed from other areas such as aspects of job skills at top management.



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## GOOD GOVERNANCE IN BUILDING A NEW IMAGE IN THE DIRECTORATE GENERAL OF IMMIGRATION-JAKARTA

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### Abstract

This research uses a single case, a method used qualitative methods by collecting data through general interviews with informants, observations and documentation, with the aim of reviewing good governance in building a new image at the Directorate General of Immigration Jakarta.

The research conducted analysis and achievement on the findings related to the research, the findings about Good Governance in Building a New Image covering the dimensions of transparency have been realized well but have not been fully offset by the control and use of information obtained in the implementation of transparency itself, accountability has been implemented optimally, but indeed still much must be changed, namely from various policies that can be accounted for, certainty, has been implemented, but there are some things that do not need to be improved, participation is very supportive and resistance itself is already visible, but there are some things that need to be improved namely human resources, legal empowerment that is the evaluation of the policies and regulations have been implemented to the maximum and input on the policy changes bottom up well delivered, effectiveness and efficiency should be implemented comprehensively, fairness, must be implemented properly, and the embodiment of a new image must be done gradually and change so that it becomes a new culture that brings a new positive image to Immigration.

**Keywords:** *Good Governance, New Image, Directorate General of Immigration*

### 1. INTRODUCTION

Immigration as an office that serves the interests both nationally and internationally, in carrying out implementation in the immigration office needs to be supported and managed properly, because it concerns the prevailing rules and regulations in the immigration office. Good Corporate Governance needs to carry out immigration functions and duties. According to **Sutedi (2011:4)**, large-scale corporate failures, financial scandals and economic crises in various countries, have focused on the importance of Corporate Governance. In this case CGC needs to be implemented at the Immigration Office because through good governance will have an impact on the performance of companies/institutions. The rise of CGC is one of them supported by a good organizational environment and motivation from high employees, the organizational environment as something that provides energy channeling and acceptance of organizations that are around the organization and influences the continuity of the organization.

Good Governance in Indonesia itself began to be pioneered and implemented since the advent of the Reformation era which in that era there has been a massive overhaul of the system of government, which demands a clean democratic process. So, Good Governance is one of the tools of reform that is absolutely implemented in the new government. Good Governance is expected to be achieved as soon as possible so that people can live peacefully and peacefully, and there is mutual trust. Along with the development of the times and the demands of the reform era that took place throughout the joints of governance life, the Directorate General of Immigration as one of the implementing elements in the Ministry of Law and Human Rights implemented Good Corporate Governance in the implementation of its duties and functions, the realization of the concept of good governance implemented by the Directorate General of Immigration which is carried out with the marked



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achievement of good conditions and synergy between the government, private sector and civil society in resource management, social, environmental and economic. The minimum prerequisites for achieving good governance are transparency, accountability, participation, legal empowerment, effectiveness and efficiency, and fairness.

In line with the desire of the Directorate General of Immigration to transform into an entity with a new packaging, since 2008 itself the Directorate General of Immigration has implemented technology that became known as the Immigration Technology System (SIMKIM) and the implementation of renewable information technology as a backbone of the implementation of immigration duties and functions, but from the internal reality in carrying out the implementation of Good Corporate Government, the Directorate General of Immigration faces very real challenges to face, the Director General of Immigration as the control holder is assisted by the Board of Directors who is formally referred to as the primary high leader of 7 (seven) people, the command line is still very strict and the implementation of duties and functions still describes an instruction (up to bottom).

In accordance with **Presidential Regulation No. 44 of 2014**, the Ministry of Law and Human Rights, has regulated the organizational structure and working procedures applicable in the Ministry of Law and Human Rights, one of which regulates the organization and working procedures of the Directorate General of Immigration, the conditions faced by the Directorate General of Immigration are now many inefficient and effective structures, with overlapping functions between the Directorate of Immigration Supervision and the Directorate General of Immigration Intelligence. The Directorate General of Immigration has built several systems that have then generally implicated good governance, one of which is the implementation of daily journals on the provision of employee performance benefits, awarding awards and the provision of disciplinary punishments that have not been carried out properly for employees in the directorate general of immigration.

As described in **Law No. 06 of 2011** on Immigration, the Directorate General of Immigration has a structural line that is within the functions of the Ministry of Law and Human Rights, in the governance of the Directorate General of Immigration, fully responsible to the Minister of Law and Human Rights, this then does not represent good governance because it still looks a comical, ineffective, efficient and transparent structure, this then implicates the goal setting of the implementation of the task and the function of immigration, so it does not have a compatible measuring instrument given that the immigration function is highly technical and implementative, so that the specified achievements and objectives often do not represent the main function of existence of Immigration with its immigration function, namely the security of the State, national security, public services and public welfare facilitators, this then affects the performance assessment of the Directorate General of Immigration itself.

The transformation that the Directorate General of Immigration wants to implement is now partial and tends to be inserious and does not have a clear reference, service in general, the implementation of immigration duties and functions only limited to changes that tend not to be well organized and do not reflect the needs of the Directorate General of Immigration nationally, Brand Immigration which is a very convoluted and inefficient structure still pinned to the Directorate General of Immigration.

On the other hand, human resources support is still not completely changed, given that there are still individuals who do not represent government in the reform era, that is why it is necessary to change the image and governance within the Directorate General of Immigration who uses Good Governance as a reference for the transformation, this problem that can hinder the new image in the Directorate General of Immigration.

**Sedarmayanti (2009:280)**, says the actors associated in Good Governance as follows: 1) State/government: the conception of government is essentially a state activity, but far from it involves the private sector and the institutional civil society. The role of government through its public policy



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is very important that irregularities that occur in the market can be avoided. In relation to the field of education, government and related services such as the education department. The state as one element of governance, in it includes political institutions and public sector institutions. The role of government through its public policy is very important in facilitating the proper market mechanism so that irregularities occurring within the market can be avoided. 2) Private sector: private sector players include private companies that are active in interactions in market systems, such as: trade processing industry, banking, cooperatives including informal sector activities. In education, the private sector includes foundations that manage private schools. 3) Civil society: community groups in the context of statehood are essentially between or in the middle between government and individuals, which includes both individuals and community groups that interact socially, politically and economically. In the field of education there is a so-called Board of Education which is an independent institution that has a position parallel to the Regent / Mayor and DPRD.

Good Governance needs to be developed in its implementation in accordance with its character and principles. According to **Mardiasmo (2004:18)**, it reveals that, Characteristics or principles developed in the implementation of good governance, include

### 1. Community participation

The community is involved in decision-making either directly or indirectly through representative institutions that can channel their aspirations. Such participation is built on freedom of association and constructive speaking and participation.

### 2. Rule of Law

Fair and indiscriminate enforcement of the law. All that has been stipulated in the law is nothing special, all must be the same in the eyes of the law. In this principle it also includes the dialming of laws related to human rights.

### 3. Transparency

Transparency is built on freedom of information. Information relating to the public interest can directly be obtained by those in need. The information available must be adequate in the sense of providing the appropriate interests necessary for it to be easily understood and monitored. Providing transparent information will create trust that arises between the government and the public through the ease of providing information

### 4. Responsiveness

Public institutions must be quick and responsive in serving stakeholders. In addition to institutions that provide services with a rapid response, the government process must also strive to serve all interested parties well

### 5. Consensus Orientation

Oriented towards the interests of the wider community. Good governance should be able to bridge different interests in order to build a comprehensive consensus in terms of what is best for community groups, and where possible consensus in this case policies and procedures. In this case it should be able to provide services to the wider community.

### 6. Equity

Every society has the same opportunity to gain prosperity and justice. Providing opportunities for every citizen in his or her life.

### 7. Effectiveness and efficiency

The management of public resources is carried out effectively and effectively. To meet the needs and services of masyarakat by using existing resources optimally and responsibly, there must be supervision in order to achieve an effectiveness and efficiency in accordance with what has been set

### 8. Accountability

Public accountability for any activities carried out by reporting any activities that have been done to the relevant parties. Decision makers are accountable to both institutions and interested organizations. The form of accountability given by each party is different from the other, according to the type of organization concerned. In order for what has been done before, it can also be monitored by stakeholders..



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### 9. Strategic vision

Government organizers and the public must have a vision that goes a long way forward. Each planned activity must have a clear purpose for the future. Leaders and communities have a far-sighted view of good governance and human development, and have a sensitivity to what to need in the future, so this principle must be oriented towards future ideals.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

According to (World Conference on Governance, **UNDP, 1999** in **Sedarmayanti, (2007:2)**, in general, governance is defined as the quality of relations between the government and the communities it serves and protected, private sectors and society. Therefore, good public sector governance is defined as a good governance process, by engaging stakeholders in various economic, socio-political activities, and utilization of various resources such as natural resources, finance, and human beings for the benefit of the people implemented by adhere to the principles of fairness, equalization, equality, efficiency, transparency and accountability, and the OECD and World Bank (**Sedarmayanti, 2009:273**), Good Governance as a solid and responsible development management implementation in line with efficient democracy and markets, avoidance of misal allocation of scarce investment funds, and prevention of corruption politically and administratively, running budget discipline and the creation of political and legal frameworks for the growth of entrepreneurial activities. “.

While according to **Koiman (2009:273)**, governance is a series of socio-political interaction processes between the government and the public in various fields related to the interests of the community and government intervention of those interests. Governance is a mechanism, processes and institutions through citizens articulating their interests, mediating their differences and using their legal rights and obligations. Governance is a process of service institutions, managing public resources and guaranteeing.

Furthermore, according to **Rochman (2009:276)**, Governance is a mechanism of economic and social resource management that involves the influence of state and non-state sectors in a single collective effort.

According to (**Haque, 2004**), the concept of good governance advocated by international donor institutions continues to change in line with the meaning of "globalization" which has extended to various aspects, including reforms in governance, administration and bureaucracy based on assumptions of neo-liberalism and market-driven policies. Globalization not only demands an increase in the role of the private sector, but also demands the public sector to improve its performance in order to serve the needs of the global market. In this context, it is believed that there is a role of market superiority, rejection of the role of state domination, reduction in public sector activities, the provision of market norms as a preference in the provision of public services, the use of business principles in public services, and concern for choice and customer satisfaction.

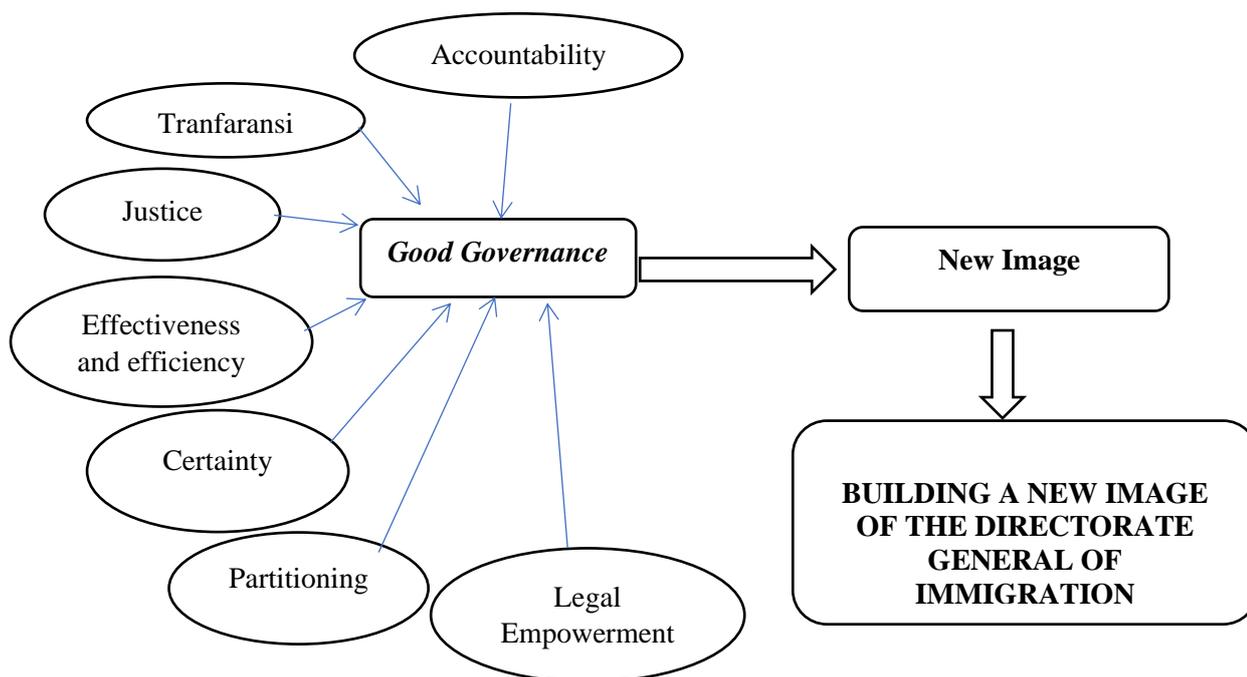
In addition to the concept of Good Governance (GG) also about the principles of GG, the State Administration Agency (LAN) (2003) expresses the principles of good governance, among others, namely accountability, transparency, equality, legal supremacy, justice, participation, decentralization, togetherness, professionalism, responsiveness, effective and efficient, and competitiveness.

According to **Sutedi (2012:9–10)**, Good Governance or Organizational governance implemented in the Directorate General of Immigration needs to be implemented properly, transparan and accountability, in implementing corporate governance its implementation must comply with international standards. Organization Management remains a major concern. Weak corporate management standards play a role in driving the crisis, so improving the company's management standards is one of the s to important changes to address the crisis. Many different paradigms of governance management in the Eastern and Western parts of the world, reflecting cultural differences,

business practices, and institutional development. Generally what is meant by the management of the Organization is the relationship between the Decision Making of the Organization and the stakeholders in one and the community on the other. In particular, it is focused on the responsibilities of the acting and functions to each stakeholders. One of the objectives of organizational management is to create a balance and oversight system to prevent misuse of resources in order to encourage economic growth, proper risk-taking and sustainability.

In implementing governance in the Directorate General of Immigration needs the human resources and relevant government to comply with the rules and procedures in accordance with the applicable laws and regulations, the immigration general needs to improve the quality and quantity in managing, the culture of the organization needs to be strengthened, and needs to make changes in managing the company (management of change) by through reform, revitalization, restructuring and rebranding. Public trust is the most important factor for companies /organizations to maintain brands. In order to maintain the good name of a company there needs to be a change through improving quality and quantity and reinventing a brand that is undeniably for the purpose of developing its organization.

Good Governance as an effort in improving rebranding in the Directorate General of Immigration, GG dimension consists of four dimensions namely transparency, accountability, predictability and participants, **Sutedi (2012:44)**, whereas for variable rebanding consists of Evolutionary rebranding and Revolution rebranding. **Muzellec and Lombkin (2005)**. Based on the opinions of experts and the framework of thought, the paradigm of thought is created based on undp theory, as follows:



Source: developed Researchers from UNDP Theory

### 3. RESEARCH METHODOLOGY

Research methods using qualitative methods, based on these symptoms qualitative researchers can determine the variables to be studied. In a qualitative view the symptoms are holistic (thorough, non-fragmentable), so qualitative researchers will not establish their research based solely on research variables, but the overall social situation studied which includes aspects of place, actor and activity that interact synergistically. In this study focused the variables studied is: Good Governance Analysis



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in an effort to build a New Image of the Directorate General of Immigration. Data is collected through observations, in-depth interviews and documentation. The technique used triangulation techniques, where the results of one interview were confirmed to the other party to reinforce the research argument. This research is a qualitative study that determines the informant using purposive sampling technique (sample aims) this is done in order to get an informant who can provide the data as desired, by looking at it then some informants are selected with the following characteristic: Main Expert Iimgrasian Analysis Section, Immigration Polytechnic Lecturer, Head of Regional Budget Preparation Subsection I, Head of Evaluation Subsection, Report and Bureaucratic Reform.

The focus of this research is to test and prove a theory about Good Governance in an effort to Build a New Image. Immigration as an office that serves the interests both nationally and internationally, in carrying out its implementation needs to be supported and managed well in order to build the image of the Directorate General of Immigration.

#### 4. RESULTS AND DISCUSSIONS

According to the OECD and the **World Bank (Sedarmayanti, 2009:273)**, “Good Governance as a solid and responsible development management implementation in line with efficient democracy and markets, avoidance of misal allocation of scarce investment funds, and prevention of corruption politically and administratively, running budget discipline and the creation of political and legal frameworks for the growth of entrepreneurial activities”.

While according to **Koiman (2009:273)**, governance is a series of socio-political interaction processes between the government and the public in various fields related to the interests of the community and government intervention of those interests. Governance is a mechanism, processes and institutions through citizens articulating their interests, mediating their differences and using their legal rights and obligations. Governance is a process of service institutions, managing public resources and guaranteeing. Dimensions about Good Governance used in interviews with informants: 1) Tranparency, 2) Accountability, 3) Certainty, 4) Participation 5) Legal Empowerment, 6) Effectiveness and Efficiency, 7) Justice, and 8) Embodiment of New Imagery.

From the results of the research through in-depth interviews there are several parts that are related to each other. The results of the study through interviews refer to the dimensions of Good Governance (GC):

##### 1) **Transparency.**

In the process has been established and has been implemented in the process of implementing the task and immigration function, considering that the transparency process is one of the elements in the implementation of governance, the flow of immigration functions has clearly been given to the relevant stake holder, starting from the beginning to the end of the flow of the function

**Concrete form:** there needs to be a physical information board located in the service room, there is a library as a source of literature and the presence of digital information that can be accessed by the public anytime and anywhere.

##### 2) **Accountability,**

In fact, it can be described as 2 (two) things, that can be taken into account, whether in this case the time or value of the implementation of the function, or the result of the implementation of the immigration function can be accounted for, in the process of governance is indeed the whole result of the governance process attached to each executor, whether it is the Office of administrator, high leader, or functional, so the accountability system has been applied well , opinions of different informants the maximum accountability has been applied to the maximum in the immigration function, however, there are still many things that need to be changed, for example accountability can be ruled out if in terms of the implementation of legislation there are things that are considered priorities, such as selective policy, concretely only people who are useful to Indonesia who can enter and do business in Indonesia, to give such approval of size but can still be accounted for.



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**Concrete form:** the implementation of accountability is the audit process of the Financial Examiner Board, and the supervisory process of the Inspectorate General and BPKP which gradually provides input and the process of change in a better direction, in addition it is necessary to keep the file archive implementation function and the process of digitizing the archive, so that at some point if necessary can be accessed again, as well as other concrete forms of standardization of service that the VISA process for TKA is completed within 2 (two) business days this becomes one of the real proofs of such certainty.

### 3) Certainty

To the maximum has been applied in the implementation of immigration functions in the field of Services Directorate General of Immigration, some Community Advertisements Directorate General of Immigration use PASTI as the tagline used, such as "Surely The Service, The Cost, and The Exact Time".

**Concrete form,** the realization of SOP, which sets the time necessary to take care of the service, cost certainty, and certainty of its requirements and needs to be supported by competent human resources.

### 4) Participation

The results of the interview obtained by Infoman as a practitioner, that active participation with the addition of CPNS originating from millennials that lead to change, whereas if reviewed in terms of academics that human resources participation in the Directorate General of Immigration if active in the implementation of immigration functions then the objectives of akn are achieved to the maximum.

**Concrete form:** Reward participation must be given to make stimulant instruments to all employees in order to be able to earn the reward, but for punishment itself should not be used as a tool to give shock therapy, they are adults.

### 5) Legal Empowerment

The law is felt to be lacking, the implementer has entered the level of knowing, but sometimes only some people who understand and understand and have the ability to socialize existing regulations and policies, sometimes also the Director General of Immigration as the implementer of the formulation of the policy does not get full information about what is happening in the Technical Implementation Unit, as well as up feel no means to provide input to the Directorate General of Immigration.

**Concrete form:** from legal empowerment there has been nothing concrete, there needs to be a good and comprehensive means of communication.

### 6) Effectiveness and Efficiency

Effectiveness has been implemented well, only effective objects such as SOP and cutting flows should be able to maintain the selective policy process that mandates immigration law, for the efficiency of the flow reduction and the reduction of the number of arrival applicants has been one of the evidence that efficiency has been implemented properly.

**Concrete form:** has been a good indicator, and must indeed be implemented properly

### 7) Justice

As there has been the availability of service lines for people with special needs, elderly and pregnant women, then justice can also be seen from the implementation of online queue application that can be accessed by the entire community.

**Concrete form:** disability pathways, wheelchair-only lanes, then priority services.

### 8) The Embodiment of New Imagery

In fact, to be gradual and slow in the process of maintaining these changes, the changes themselves can be implemented quickly, it is only the process of maintaining them that takes a long time, and the opinion of other informants states that the change of image is very important, especially in the prestige of society, but the community also needs to know that change must be implemented in a planned manner and needs to be a mature change therefore change is implemented slowly and gradually



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**Concrete form:** Of the 3 informants who agree that rapid change is likely to be dynamic, slow changes will tend to stagnate and opinions of 1 different informant disagree with rapid change because it tends to be coercive.

The results of interviews and data results in the field in the Application of Good Governance in the Directorate General of Immigration there are several obstacles: (1) Information Technology Systems that are still often interrupted so as to affect waiters; 2) Subjectivity in assessment to staff; 3) Workloads that are still not measurable. 4) The Directorate General of Immigration still uses oligarchic understanding, who is the older one to take precedence over; 5) The reform of the system needs to be implemented; 6) The absence of a role model figure who became a pioneer of change in the Directorate General of Immigration.

Some other findings about Good Governance in an effort to build the Brand Image directorate general of tax Jakarta. According to various opinions expressed by informants about the picture of Good Governance in building a new image is optimal enough, things that still need to be improved and very important, especially in the prestige of society, especially in the prestige of the community, but the community also needs to know that change must be implemented in a planned and mature manner, in making changes need to be made gradually, while the results of making changes are often done at once, while the results of making changes are often done at once, so the results are not maximal. Likewise in making changes to realize a new image must be done gradually starting from the smallest thing, because it can not be done instantly. Making these changes needs to be implemented over a long period of time, and become a new culture that brings a new positive image to Immigration, which has been in the implementation of a radical and non-majority that is resistant to making positive changes.

Based on the informant's opinion, there needs to be efforts made and the implementation of Good Governance in the implementation of immigration duties and functions, in his opinion: 1) The development of integrity zones towards areas free from corruption; 2) Change human resource mindset through various focus group discussion with academics; 3) Branch Marking with The Directorate General of Immigration of Other Countries; 4) Build public relations facilities as a more dynamic tongue-in-cheek connection; 5) The development of cooperation between agencies, especially with ministries/institutions that can simplify bureaucratic flows, 6) The implementation of gradual evaluation and absorption of people's aspirations against the wishes of what is expected to be organized by the Directorate General of Immigration; 7) Implementation of Integrity Zone implementation to realize corruption-free areas and clean bureaucratic areas serving in the Directorate General of Immigration. 8) Has cooperated with the academics of both immigration police in an effort to provide input on the process of changing existing rules and regulations; 9) Tends to be open to input and criticism.

Looking at the various opinions expressed by informants about Good Governance in an effort to build a new image of the Directorate General of Immigration in its implementation is optimal enough, meaning good governance that is run has been effective and strives to continue in maintaining credibility and quality of service, so that the image is good enough, but nevertheless need to continue to strive to improve towards a better image with various efforts made. According to **Koiman (2009:273)**, governance is a series of socio-political interaction processes between the government and the public in various fields related to the interests of the community and government intervention of those interests. Governance is a mechanism, processes and institutions through citizens articulating their interests, mediating their differences and using their legal rights and obligations. Governance is the process of service institutions, managing public resources and ensuring.

Furthermore, according to **Rochman (2009:276)**, Governance is a mechanism of economic and social resource management that involves the influence of state and non-state sectors in a single collective effort. The concept of "governance" is nothing new. It's as old as human civilization. Simply put



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"governance" means: the decision-making process and the process by which decisions are applied (or not applied). Governance can be used in several contexts such as corporate governance, international governance, national government and local government (Alamsyah, 2010).

This research is in line with the research results of **Abdoel Wahid Oesman (2010)**, Realizing the Good Governance of the Directorate General of Taxation With Reinventing Government (Has Been Against The Management of DjP And Tax Bill), Efficiency, effectiveness and continuity of an organization is necessary in order to create the welfare of the community, employees and stakeholders. That condition can be achieved by improving the good governance system in the Directorate General of Taxation. Good organizational governance at the Directorate General of Taxation (DJP). Research **Galuh Ajeng Dwi Purwastuti , Yaqub Cikusin , Hayat (2020)**, "Public Service Immigration Based Good Governance", "This research aims to see how public service immigration based on good governance in the Immigration Office of Class 1 Malang. Improving the implementation of public services in passport making using an integrated service system (One Step Service) and information disclosure which is one of the important principles in the creation of good governance, which aims to cut bureaucracy and make it easier for people in the process of making passports. **Heriyansyah Futra and Itok Wicaksono 's** research (2016) "Implementation of Good governance in Administration" The results show that Good governance in the field has been implemented, but has not been implemented to the maximum as expected. This can be seen from the cooperation between the government, the private sector and the community that has not gone well.

### 5. CONCLUSION

The results of research on the picture of Good Governance in building Citra are seen from:

1. Transparency, has been well realized, but transparency must, but not yet fully offset by controlling the use of information obtained in the implementation of transparency itself, means that the quality of service must be more accessible.
2. Accountability, immigration functions have been implemented optimally, but there are still many things that need to be changed, namely from various ebijakan that can be accounted for
3. Certainty, has been applied in the implementation of immigration function in the field of Services Directorate General of Immigration has been done optimally, but there are some things that do not need to be improved namely The Advertising of The Directorate General of Immigration using PASTI as the tagline used, such as "Surely The Service, The Cost, and The Time Must Be"
4. Participation, Human Resources Directorate general is very supportive and resistance itself is not seen, but there are some things that need to be improved namely human resources in carrying out Good Governance optimally.
5. Legal Empowerment, in accordance with the mandate of **law No.6 of 2011** on Immigration, directorate general of immigration also continues to carry out the formulation of policies and regulations, and the evaluation of such policies and regulations has been implemented to the maximum and input on the policy changes bottom up is delivered well..
6. Effectiveness and Efficiency, has been going well, but there is an element that needs to be in the backup plan and done comprehensively, so that will bring the impact of changes on the movement of the service wheel, efficiency has also been realized well,
7. Justice, In the implementation of immigration duties and functions, justice has been implemented properly, but in carrying out justice needs to get the same share as it needs in this case in view of society should be fair for example prioritizing people with disabilities and people with special needs.
8. The embodiment of The New Image, Change to realize a new image must be done gradually and that change must indeed start from small things, changes to these small things cannot be implemented instantly, it takes a lot of change and this change must also be contagious, until the change can be implemented in a long time, and become a new culture that brings a new positive image to Immigration.



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The results of the study found some unsolved problems, so researchers submitted some suggestions, in an effort to improve Citra Baru through Good Governance in the Directorate General of Immigration. Directorate General of Immigration in improving Good Governance in addition to having to transphaansi, accountability, certainty, participation, legal empowerment, effectiveness and efficiency, justice and the embodiment of a new image, efforts that need to be made as follows:

- 1) Transparency, i.e. by providing a physical information board located in the service room, to digital information that can be accessed by the public anytime and anywhere.
- 2) Accountability, namely by providing visa services for vulnerable countries, needs to be held closely with related stake holders such as the Police, Ministry of Defense, Ministry of Finance, Ministry of Tourism, etc. to get a decision on whether people from the vulnerable country can enter and conduct activities within the Unitary Territory of the Republic of Indonesia.
- 3) Certainty, namely by the issuance of Technical Guidance, Circular Letter, Laws and Regulations and policies that can be implemented by all implementers
- 4) Participation, i.e. with the award of rewards and punishment but can not yet be the reason for existing human resources improve their performance.
- 5) Legal Empowerment, which will be carried out every ly, will be carried out consultation and implementation of policies that invite all Technical Implementation Units that dissect to the implementing level, so that the policy can be implemented to the level of implementers who are directly facing the community.
- 6) Effectiveness and Efficiency, namely with officers who minimize conflicts of interest and there are concrete indicators and it is very commonplace when used as one of the indicators of the implementation of good immigration functions.
- 7) Justice, with the Use of Queue Numbers, so as not to precede each other in receiving service, so that it can become orderly.
- 8) The embodiment of Citra Baru is that by realizing a continuous change that is material, method, and Man must be able to be changed properly also there needs to be a change needs to be implemented awareness of the changing object to transform.

### LIMITATION AND STUDY FORWARD

This research is different from previous studies that discuss governance but do not discuss in building imagery, in this study there is a novelty on how to build a new image in the Directorate General of Immigration. This research has not been discussed entirely due to time constraints and other factors such as energy and finance, there is still much to be researched regarding other variables such as organizational culture, change management, competence, reform, restructuring and many other variables that support performance improvement, rebranding and other objectives.

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## APPLYING LEAN WAREHOUSE APPROACH IN WAREHOUSE KD IN LEADING AUTOMOTIVE MANUFACTURER IN CIKARANG, INDONESIA

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### Abstract

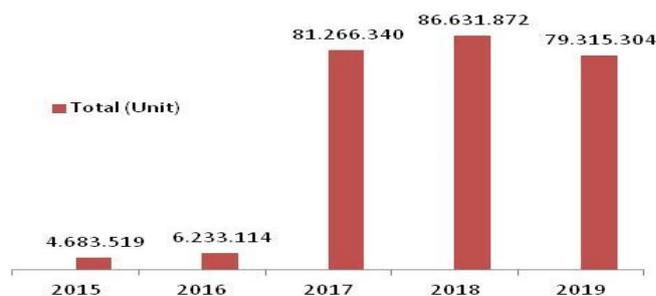
KD parts warehouse is a transit point and connection before the KD parts (Knock Down) car body parts to shipping to export destination countries. The faster the warehouse operation process will make the company's export performance better. This research aims to reduce NVA and NNVA activities' concern in warehouse KD operations in Japanese automotive manufacturers in Cikarang. The application of lean thinking with the VSM (Value Stream Mapping) approach eliminates waste of activities and processes in the KD warehouse. From the CVSM and PMA results, the work efficiency is 63%, with an NVA time of 244.5 minutes and an NNVA time of 471 minutes. In the future state map, the work efficiency becomes 82% due to kaizen improvement, re-layout, and process redesign in the warehouse, with the total NVA being zero and NNVA to 177 minutes.

**Keywords:** *Lean, Value Stream Mapping, Work Efficiency.*

### 1. INTRODUCTION

Competition in the Indonesian automotive industry is currently very competitive. It forces automotive manufacturing companies to carry out effectiveness and efficiency in all their business processes, be it in the production or manufacturing process, from sales to the supply chain management process. Based on data from the Automotive Industry Association in Indonesia (Gaikindo 2015: 2019), there was an increase in the number of exported KD (Knock Down) parts or car components from 2015-2019 for four-wheeled vehicles and can be seen in the graphical figure 1. in the form of KD (Knock Down) parts, and it is undoubtedly a challenge to further increase profits for the company, by achieving better QCT (Quality, Cost and Time) levels continuously (Supply Chain Indonesia 2015).

KD (Knock Down) parts Warehouse is a select warehouse owned by one of the large automotive manufacturing companies from Japan-based in Cikarang, West Java, Indonesia. The company created the new warehouse in February 2019, which is devoted to goods to be sent abroad or export of parts in the form of WIP products for car production or after-sales spare parts in the destination country. The warehouse is one part of supply chain management in a company, especially automotive manufacturing. And it is imperative to do continuous improvement or continuous improvement to achieve a better level of productivity (Bartholdi and May 2014).



**Figure 1. Growth chart of KD Part of Indonesian exports 2015-2019**  
(Source: Gaikindo)



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Implementing lean principles in a warehouse can significantly improve the material storage warehouse's performance by reducing stock losses and controlling the delivery process (Pereira et al., 2020) and (Guzmán et al., 2018). From (Oey & Nofrimurti, 2018) found that the implementation of lean in traditional warehouses owned by SME's for drug distribution in Indonesia. It can increase the overall warehouse operation process flow, reduce process cycle time, and increase overall warehouse productivity. Lean tools significantly impact the warehouse work operation process by increasing warehouse performance by reducing process lead times and reducing inventory levels ((Anđelković et al., 2017); (Pereira et al., 2020) and (Prasetyawan et al., 2020).

Based on the description above, this study raises the application of Lean tools in operating a KD Parts warehouse in one of the large Japanese automotive car manufacturing companies in Indonesia. With the hope that this research has an output in the form of work process improvement, lead time reduction, process, and activity waste elimination, reduction of process cycle time in KD Parts warehouse to achieve better efficiency and effectiveness.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Lean concept

Lean has first introduced in the Toyota production system (TPS) concept in 1988, introduced by Taiichi Ohno. The main objective is to reduce and eliminate waste from all processes and then increase speed and flow. Simultaneously, the desired output increases productivity, efficiency, and effectiveness in the process, which then impacts creating value for customers (Garza -Reyes et al., 2015; Arturo, 2020). One of the lean approach's essential methods is identifying and classifying activities that can provide added value and not provide added value (Nyoman Pujawan., 2009). In this context, it can be classified into three, as follows:

1. Non-Value Added activity (NVA): Is an activity that does not add value to a work process.
2. Value Added activity (VA): Activities that provide value changes and additions to the product
3. Necessary but Non-Value Added activity (NNVA): An activity that does not provide added value but cannot eliminate

Implementing lean thinking itself can be carried out systematically if it has followed several steps that compiled as follows (Nyoman Pujawan., 2009) and (Garza-reyes et al., 2015):

1. Understands the occurrence of waste by sorting it into 3 classifications of NVA, VA, or NNVA.
2. Next, setting the direction of improvement to be carried out, determining the target of improvement, selecting the measuring tool for success, determining which processes require detailed mapping.
3. Understand the general picture (big picture).
4. Perform mapping in detail using several existing mapping techniques.
5. We involve customers or suppliers.
6. Check the goals and achievements.

### 2.2 Warehouse management and lean warehouse

Warehouse management has several essential parts in every logistics system and supply chain of a company, consisting of several processes: the receiving process, receiving storage, order picking, shipping, and administration process (Shiau & Lee, 2010). In a logistics company, warehouse management can make it easier for the company and become the primary key in fulfilling customer



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desires and synchronizing the supply and demand curve in its overall supply chain management process (Valchkov & Valchkova, 2018). In several studies, it has been raised and carried out how lean applications with different combinations of tools have an impact on warehouse operations, e.g.:

- (Dharmapriya & Kulatunga, 2011) using simulated analysis and combined with value stream mapping reduces travel distance, unnecessary movement, and faster shipping time.
- (Phogat, 2013) uses process improvement and hybrid 5s to improve the warehouse space and reduce processing time in warehouse operations for medical equipment warehouse in India.
- (Reis et al., 2017) develop improvement warehouse operations through KPI improvements with research subjects, namely traditional warehouses in Brazil. The results and findings of improved warehouse management performance improved the work environment better before improvement with lean.
- (Prasetyawan et al., 2020) conducted research in a plastic manufacturing company in Indonesia by integrating value stream mapping with the FSN method (Fast Moving, Slow Moving, and Non-Moving). VSM is used to reduce process waste in the warehouse, while FSN is applied to re-layout and redesign warehouse layouts to obtain the minimum cycle time value.
- (A. Abideen & Mohamad, 2020) using value stream mapping by integrating it with DES (discrete event simulating) with a case study in a Malaysian pharmaceutical manufacturing company. With the research findings in the form of VSM future state with a reduction in cycle time and total lead time that is shorter than before the improvement.

Lean implementation improves the process and increases the process's overall performance, both internal and external (Alicke & Lösch, 2010; Pattanawanporn, 2014). Table 1 shows a summary of research potential using lean in a warehouse based on several previous research reviews.

**Table 1. Opportunity Research in the warehouse (Alicke & Lösch, 2010)**

Warehouse Process	Subject Improvement	To do	Potential saving (%)
Warehouse Internal	People	Increase efficiency and flexibility of labor	1-5
	Process	Reduce handling steps and touches for each product between receiving and shipping	4-9
	Performance management	Ensure continuous improvement efficiency	2-5
	Layout	Optimize layout structure and align with local requirements and restrictions	3-4
Warehouse External	Interaction with 3rd parties	Adjust supplier and customer requirements to warehouse restrictions	0-4
	Ownership	Optimize contract and service provider	0-5

### 2.3 Value Stream Mapping (VSM)

Based on research from (Wilson 2010) and (Villareal et al., 2012), Value Stream Mapping is an approach method that has the main objective of reducing and eliminating waste in a value chain by mapping thoroughly and making significant improvements with various approaches, such as kaizen, lean thinking, and others. Value Stream Mapping is one of the analytical techniques used in the Lean

approach method, namely by carrying out activities to identify and analyze the waste or waste contained in a system or process. Using a comprehensive process mapping so that complete information is obtained, classifies activities, including waste or not (Nyoman Pujawan., 2005), (Transform et al., 2013.) and (Purba et al., 2018).

In several previous studies, Value Stream Mapping can apply in several case studies, including the following:

- (A. Z. Abideen & Mohamad, 2019): Value stream mapping is used to identify and eliminate waste activities and processes in the warehouse of a manufacturing company, with the results of several improvement options after waste identification. Such as the use of e-kanban, re-layout, poka-yoke, and 5S.
- (Sudhi, 2019) : In his research, value stream mapping is used as a lean approach method that impacts reducing activity and process waste and reducing cycle time in the warehouse process, which affects improving the performance of return management of the warehouse.
- (Oey & Nofrimurti, 2018) : Value stream mapping is used as an initial analysis tool in lean processes to identify process waste and activities in a pharmaceutical distribution company in Indonesia
- (Bersamin et al., 2015) : Identifying problems and waste in the receiving warehouse process by using a value stream mapping in one of the Lean DMAIC analysis methods than making improvements to reduce cycle time on the receiving process.

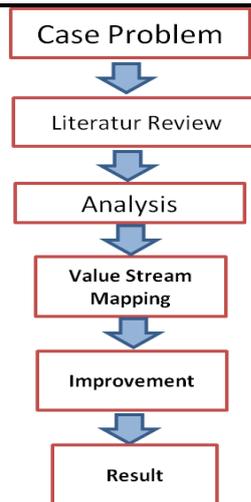
There are several types of symbols used in the process of drawing value stream mapping (VSM) as follows:

Simbol	Activity	Simbol	Activity
	Process		Sub-Process
	Data Box		Electronic Information Flow
	Forklift		New Activity
	Truck		Push Material
	Computer		Supplier
	Production Planning Control		Go and See
	Inventory		Next Process and Information
	Man Power		Assembling Company

**Figure 2. Value Stream Mapping Symbol**

### 3. RESEARCH METHODOLOGY

In this study, using a lean approach with the value stream mapping method to analyze the waste in the warehouse operation process is used to make improvements to achieve a better level of work effectiveness. The process stages in this research can see in Figure 2 below.



**Figure 3. Methodology Cycle**

## 4. RESULTS AND DISCUSSIONS

### 4.1 Current State Value Stream

Some of the KD warehouse work processes include receiving, marshaling, setting and sequence, shipping, and loading. Detailed activities for each function can see in Table 1 below:

**Table 2. The detail and actual activity in KD Warehouse**

Process	Sub Process	Detail Process	Process Code	Cycle Time (Min)
Receiving	Checking	Receive Delivery Notes from supplier	CR01	3'
		Checking 100% quantity confirmation	CR02	15'
		Waiting PO confirmation from administration logistic office	CR03	17'
		Validation Delivery Notes	CR04	22'
		Waiting QC Confirmation	CR05	10'
		Empty Packaging confirmation	CR06	12'
		Create Delivery notes for empty packaging	CR07	4'
	Unloading	Forklift preparation point	UR01	1,5'
		Forklift permit usage	UR02	2,5'
		Go to the truck docking area	UR03	3'
		Communication with Checker	UR04	3'
		Carrying out material from a truck	UR05	40'
		Put to the checking area	UR06	22'
		Go to the empty packaging area	UR07	8'
		Take empty packaging	UR08	17'
		Carrying in empty packaging to truck	UR09	13'
		Return to the forklift preparation area	UR010	4'
		Fill finish permit forklift usage	UR011	3'
	QC Point	Cheker calling QC team	UQC01	7'
		Waiting QC coming	UQC02	15'
QC Checking 100%		UQC03	23'	



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		QC Label ("QC PASS")	UQC04	8'
Marshaling	Checking	Go to Checking Area	CM01	7'
		Waiting finish the checking process	CM02	34'
		Separating parts based on warehouse classification	CM03	42'
		Go to a Warehouse location	CM04	13'
	Posting	Waiting for confirmation from the administration process	MP01	23'
		Checking label and warehouse location	MP02	12'
		Posting parts to warehouse	MP03	39'
		Take Empty Pallet	MP04	31'
		Posting empty pallet to the empty packing area	MP05	15'
	Stock Control	Update stock amount in each warehouse	MS01	20'
		Fill amount in form stock report	MS02	12'
	Setting and Sequence	Setting	Waiting confirmation for setting parts form from foreman	SS01
Walking to a warehouse location			SS02	7'
Take dolly supply for setting parts			SS03	13'
Searching part address			SS04	27'
Take parts and put to dolly			SS05	49'
Sequence		Waiting confirmation for sequence parts form from foreman	SQ01	9'
		Walking to the warehouse location	SQ02	6'
		take dolly for sequence parts	SQ03	10'
		Searching part address	SQ04	31'
		Take parts and put to dolly	SQ05	43'
Picking	Picking	Preparation empty case	PP01	28'
		Waiting for confirmation from foreman	PP02	6'
		Take list part for picking list in the logistic office	PP03	17'
		Manual wrapping plastics	PP04	102'
		Take parts and put in each case (follow picking list)	PP05	345'
		Waiting for QC coming to unpacking	PP06	13'
		QC Checking and QC pass	PP07	24'
		Put label tag in each case based on destination	PP08	61'
		Set a ready case to the finish area (use electric hand lift)	PP09	41'
Shipping and loading	Shipping	Forklift preparation point	SL01	1,5'
		Forklift permit usage	SL02	2'
		Go to the truck docking area	SL03	6'
		Waiting for QC coming to unpacking	SL04	13'
		QC PASS for loading and shipment to truck	SL05	24'
		Carrying in the case to truck	SL06	32'
		Return to the forklift preparation area	SL07	6'
		Fill finish permit forklift usage	SL08	1,5'
Administration	Good Receive	Take D/N from the unloading gate to the office	GR01	19'
		separating based on warehouse code	GR01	12'
		Posting PO material to the system	GR01	23'
		Fill in the database for each material coming	GR01	15'
		Confirmation material incoming to PPC team	GR01	12'
	Good Issue	Take D/N from loading gate to office	GI01	19'
		Posting PO material to the system	GI01	33'
		Fill in the database for each material outgoing	GI01	20'
		Confirmation material outgoing to PPC team	GI01	13'
Total Cycle Time			1593	

Furthermore, the researchers made a current state value stream mapping (CVSM) to describe the process of KD parts warehouse cycle time, starting from receiving, marshaling, picking, shipping, and administration functions. Total is 1593 minutes for all operations with a limit of 1 lot of KD part



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production (1 lot = 60 units) to produce finished products. From Figure 3 Current State Value Stream Mapping (CVSM) of the KD parts warehouse process, it can see that the cycle time of each process includes: Receiving a 253-minute process with a total inventory of 3 lots, a 248-minute marshaling process with a total inventory of 1 lot, setting and sequence processes for 203 minutes with a total inventory of 1 lot, picking process 537 minutes with inventory 1 lot, shipping and loading 86 minutes and the last administrative process with a cycle time of 166 minutes. The available working time for warehouse KD based on L/T shipment for export is 2 days with 2 shifts, 1 day is 960 minutes, total available time is 1920 minutes.

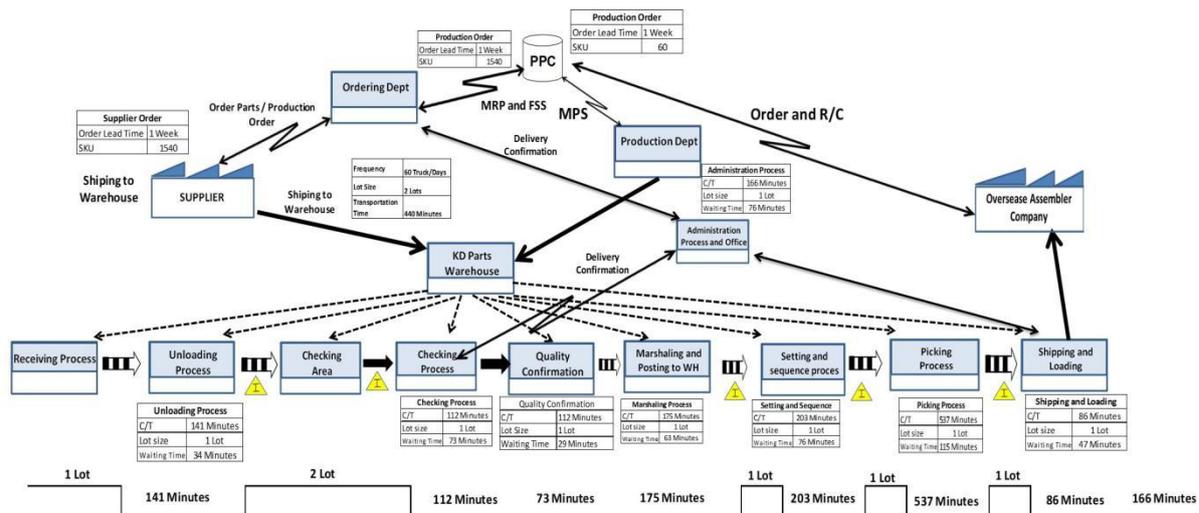


Figure 4. Current State Value Stream Mapping (CVSM)

## 4.2 Process Activity Mapping (PMA)

Next, the researcher analyzes the waste that occurs with a classification based on non-value-added, value-added, and necessary but non-value-added using PMA (Process Mapping Activity) tools, which can see in Table 2 below.

Table 2. Process Mapping Activity

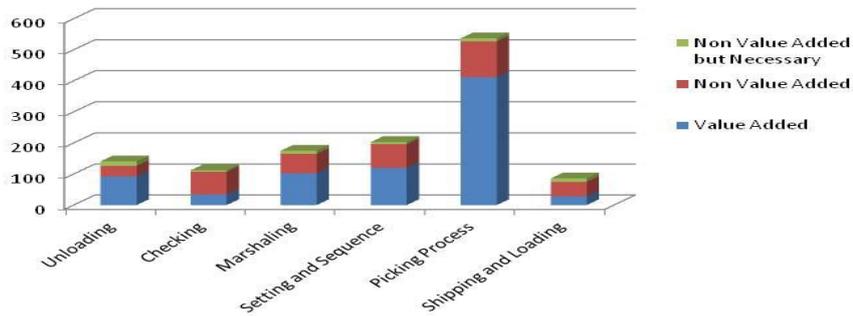
Job Code	Type					Distance (M)	Identification			Job Code	Type					Distance (M)	Identification		
	Operations	Transport	Inspection	Store	Delay		VA	NVA	NNVA		Operations	Transport	Inspection	Store	Delay		VA	NVA	NNVA
CR01	o					25	o			SS01				o					
CR02			o			3		o		SS02	o				1		o		
CR03				o				o		SS03	o					o			
CR04	o					7	o		o	SS04		o			6		o		
CR05				o				o		SS05	o					o			
CR06				o					o	SQ01				o	1		o		
CR07	o					2	o			SQ02		o					o		
UR01	o					5	o			SQ0	o					o			



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									3										
UR02			o					o	SQ04			o				10			o
UR03		o				17		o	SQ05	o							o		
UR04					o			o	PP01	o							o		
UR05	o					8	o		PP02					o				o	
UR06				o		24		o	PP03		o					13			o
UR07		o						o	PP04	o									o
UR08				o				o	PP05	o							o		
UR09	o							o	PP06					o				o	
UR10		o				5		o	PP07			o							o
UR11			o					o	PP08	o								o	
UQC01					o			o	PP09		o					6			o
UQC02					o			o	SL01	o								o	
UQC03					o			o	SL02			o							o
UQC04					o			o	SL03		o								o
CM01		o				17		o	SL04					o		17			o
CM02					o			o	SL05					o					o
CM03	o							o	SL06	o								o	
CM04		o				18		o	SL07		o								o
MP01					o			o	SL08			o							o
MP02			o					o	GR01					o		17			o
MP03	o					20	o		GR02			o							o
MP04				o		12	o		GR03	o								o	
MP05		o				5		o	GR04					o					o
MP06				o				o	GR05	o								o	
MS01			o					o	GI01					o		17			o
MS02	o							o	GI02	o								o	
									GI03					o					o
									GI04	o								o	

The yamazumi chart results show the non-value-added (NA) value of time waste for each warehouse process. So the current goal is to eliminate waste in the form of non-value added and reduce necessary but non-value added (NNVA).



**Figure 5. Yamazumi Chart**

After that, the researchers analyzed the process efficiency using the results of the CVSM analysis and the PAM table. The form of the calculation formula is as follows.

$$\text{Available working hour} - (NVA + NNVA)\text{time} = \text{Effective Working hour} \dots \dots (1)$$

$$\text{Work Efficiency} = \frac{\text{Effective Working Hour}}{\text{Available Working Hour}} \times 100\% \dots \dots \dots (2)$$

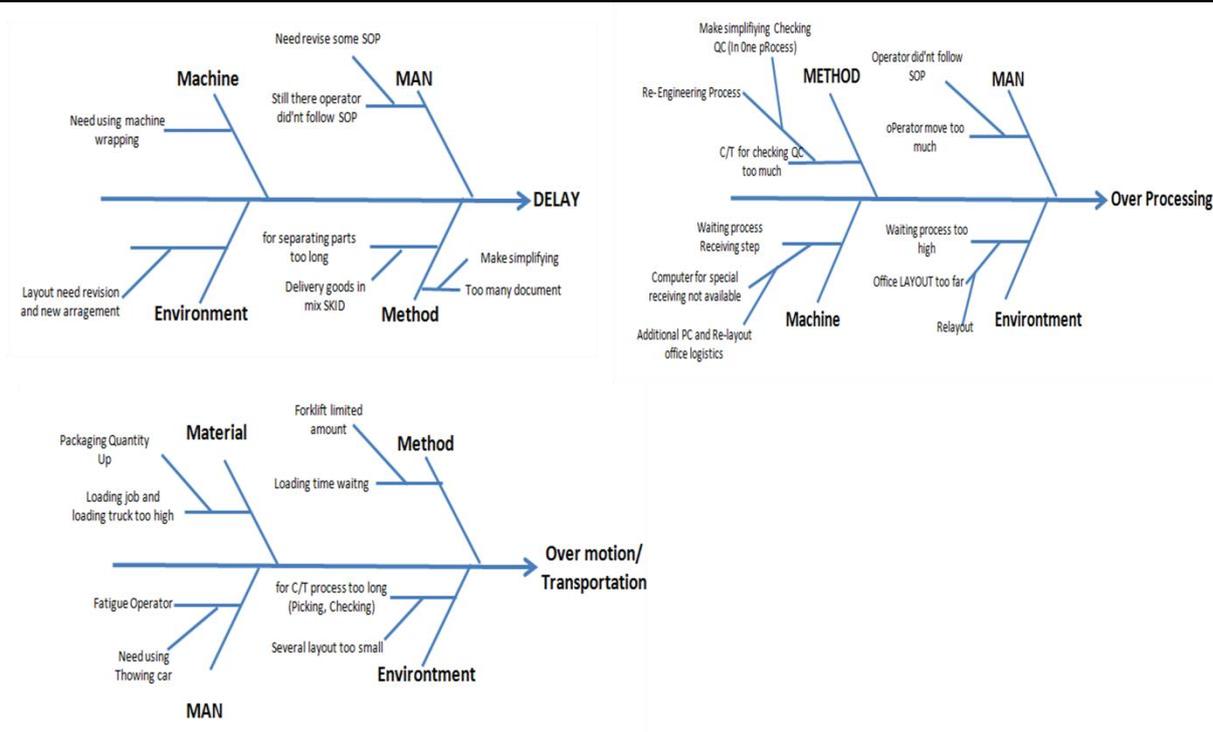
Before applying lean :

$$\text{Available working hour} = (1 \text{ day } (2 \text{ shift})) \times 2 = (2 \times (8 \times 60)) \times 2 = 1920 \text{ Minutes}$$

$$\text{Effective working hour} = 1920 - (244,5 + 471) = 1204,5$$

$$\text{Work Efficiency} = \frac{1204,5}{1920} \times 100\% = 63\%$$

After obtaining a low percentage of productivity values, which is only 25% with the above calculations, this is due to the high NVA and NNVA values in warehouse operations. The researcher conducted a cause-effect diagram (fishbone diagram) analysis to determine the causes of waste processes and activities in the next step. Three main points raise over-processing, delay, and over motion/transportation. By conducting brainstorming with supply chain managers and supervisors to determine the root cause using the fishbone diagram.



**Figure 6. Fishbone diagram (Delay, Over-processing, and over motion)**

## Improvement

### Re-layout warehouse

The proposed improvements to the warehouse layout include:

- Additional for picking area of 800 m<sup>2</sup>, to reduce waiting time for the picking process.
- Making a QC check area of 12 m<sup>2</sup> to provide a particular area for the QC team, so there is no waiting process for during checking activities in the receiving process near the loading dock area and shipping dock area.
- Addition of an office logistic team area adjacent to the loading dock area and shipping dock area with computer and internet equipment. Its purpose in eliminating the waiting process in warehouse administration activities.



**Figure 7. Warehouse Re-layout proposal**

## Redesign process and kaizen

Several points of improvement for the redesign process in the KD warehouse, including:

- Making new SOPs (standard operating proceedings) related to several proposed activities, namely: QC Point checking stand by and administration logistic office near the warehouse's loading/unloading gate.
- Job and manpower balancing in the picking process.
- We are simplifying the administration process.
- Provision of handy talkies (HT) and cell phones for each leader to facilitate communication between the warehouse processes.
- Packaging kaizen: quantity up and simplifying handling process.
- Do an expansion area (re-layout) for inspection and validation of delivery notes. Its purpose to reduce the waiting time for the checking and validation process.
- Picking improvement: Use of automatic wrapping machine auxiliary tools.
- Label and addressing improvement: use fruit names as a separator between unique parts, aimed at reducing searching time
- Creation of a skid delivery module for each part, based on warehouse location/skid delivery. To eliminate the process of separating parts according to the warehouse location. Apart from that, it also aims to reduce the validation process and to check actual material.

## Future State Mapping

After conducting simulations and trials related to improvement proposals, both warehouse re-layout, process redesign, and kaizen improvement, there was a significant change in the process cycle time by eliminating NVA, increasing the effectiveness of the VA process, but only reducing the time for NNVA. The total NVA time was successfully eliminated, and the NNVA became 177 minutes.

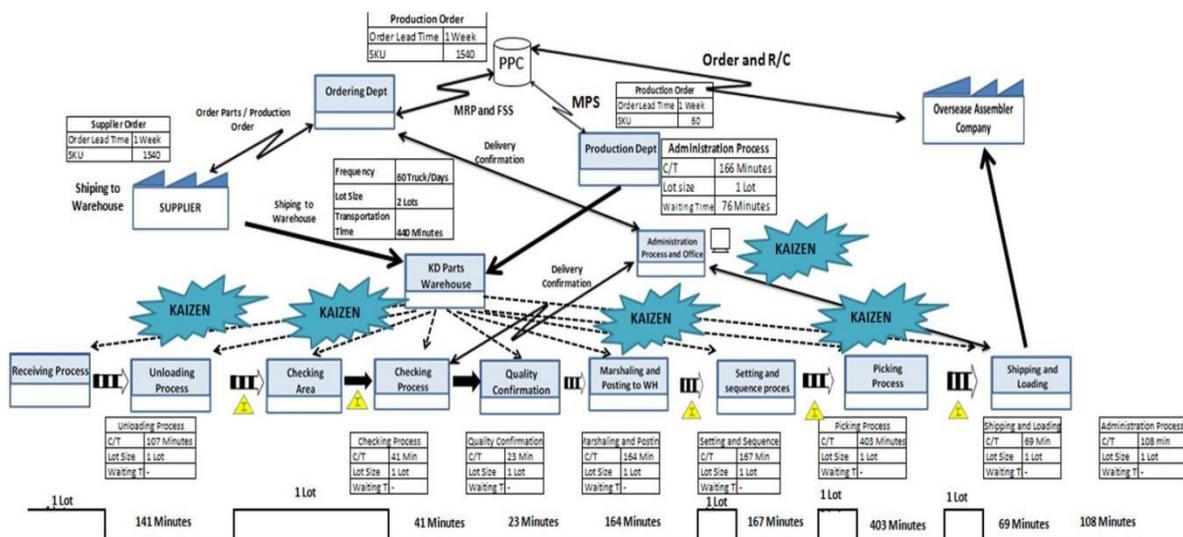


Figure 8. Future State Value Stream Mapping (FSVSM)



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The last step is to calculate the work efficiency after the improvements are made using a lean approach, based on FVSM (future state value stream mapping). KD warehouse's productivity or working efficiency increased significantly far from the previous 63% to 90%.

Effective working hour =  $1920 - (0 + 177) = 1743$

Work Efficiency =  $\frac{1743}{1920} \times 100\% = 90\%$

### 5. CONCLUSION

Based on the analysis results above, it is proved that the lean approach with value stream mapping has a very significant and useful impact on the company in achieving even better production values, from 63% to 90%. However, there was no opportunity to apply more advanced technology in this study, such as using barcodes/scanners in the material code process, aiming to reduce the validation process and the searching time in the KD warehouse area.

### LIMITATION AND STUDY FORWARD

This research is limited to the research scope, which only focuses on reducing process waste in the KD warehouse area and does not touch on optimizing warehouse inventory. Meanwhile, for further research opportunities related to lean approaches, SIX SIGMA can be used or generally referred to as Lean Six Sigma to further research to optimize the KD warehouse process.

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## ANALYSIS OF THE IMPACT OF TOURISM DESTINATIONS AMOUNT, HOTELS AMOUNT, RESTAURANT AMOUNT, LABORS AMOUNT ON ACCOMMODATION SECTOR INCOME, FOOD AND BEVERAGE IN SOUTH SUMATERA PROVINCE

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### Abstract

This study aims to analysis effect of the tourist destination's amount, the hotel's amount, the restaurant's amount, the tourism destinations amount to the income of accommodation, food and beverage sector in South Sumatra Province. The samples used during the 2013 – 2018 periods. To measure the effect of variables, used panel data regression and to test the hypothesis used to test the hypothesis F and t. The results of the research are: (1) there was a positive and significant partial effect of the tourist destination's amount, the hotel's amount, the restaurant's amount, the tourism destinations amount to the income of accommodation, food and beverage sector in South Sumatra Province, and (2) there was a positive and significant simultaneous effect of the tourist destination's amount, the hotel's amount, the restaurant's amount, the tourism destinations amount to the income of accommodation, food and beverage sector in South Sumatra Province.

**Keywords:** *Tourist Destination's Amount, Hotel's Amount, Restaurant's Amount, Tourism destinations Amount, Income, Accommodation, Food And Beverage Sector.*

### 1. INTRODUCTION

Local government's role and responsibility to improve the lives and welfare of their people by carrying out development in all sectors, as stated in Law Number 33 of 2004 concerning Financial Balance between the Central Government and Local Government where this Law is the basis for Local Government to manage local finances more autonomous and independent. The authority and responsibility of local governments in managing government and development tasks are becoming increasingly broad, including efforts to manage and develop local superiority to increase Gross Regional Domestic Product (PDRB) and have a positive impact on regional economic growth.

Local development needs to be directed so it can further encourage economic growth and improve the National Economy. Implementing autonomy can provide flexibility to the Regional Government to manage, develop, and explore local superiority, to increase the accommodation, food and drink sector in the region.

Tourism always has an impact on economic growth, such as increasing foreign exchange, especially for neighboring countries, increasing income and equal distribution of people's income, as a result of the multiplier effect that occurs from relatively large tourist spending, increasing national income or Gross Domestic Gross (GDP), encourage increased investment from the tourism industry sector and other economic sectors and strengthen the balance of payments (Ivanov, et al., 2011).

The tourism sector is a sector that has the potential to be developed and plays a role in increasing GRDP, especially in the accommodation, food and drink sectors. As a tourism destination, the highest regional income comes from hotel and restaurant taxes. In efforts to improve the accommodation, food and drink sectors, Hotel and Restaurant Taxes make a real contribution to the value of Local Taxes in financing government expenditures.

Hotel and Restaurant Tax Sources are closely related to the Number of Tourist Visits, because if the visiting tourist decides to stay at a hotel, inn or lodging, or just go to an available restaurant, it will



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contribute to increasing hotel and restaurant tax revenue, and it impacts increasing GRDP, therefore it must be supported by an increase in the hotels' amount and restaurants amount, so that the more tourists who rent hotel rooms or eat at restaurants, Hotel and Restaurant Tax revenues will also increase.

South Sumatra Province is one of the tourist destinations in Indonesia. The tourism sector in South Sumatra Province has grown since implementing several international events, such as the Musi Triboaton, the Indonesian Film Festival, the ASEAN University Games, and the ASEAN Games, so that the amount of guests staying at hotels and visiting restaurants has increased, thus impacting increasing hotels and restaurants tax revenue and an increase in GRDP in South Sumatra Province, especially at the post providing accommodation, food and drink.

The provision of the accommodation, food and drink sector in the province of South Sumatra for each Regency / City has balloned, where the city of Palembang is in the largest rank compared to other regencies / cities, while Musi Rawas Utara is in the lowest rank in the accommodation's provision, food and drink sector.

Palembang City has the largest number of tourist destinations compared to other regencies / cities, while Musi Rawas Regency has the smallest number of tourist destinations when compared to other regencies / cities. In addition, based on the city of Palembang as a Metropolitan city, it has more accommodation sectors, hotels, inns, or other accommodations, which reached 65 hotels / inns in 2018 or an average increase compared to previous years 28.28% per year. Musi Rawas Regency, until 2018, only had 5 hotels / inns, in 2015-2016 and 2017-2018 only increased 2 units in 2 years.

The largest number of restaurants or restaurants located in Palembang City, in 2018 it reached 459 restaurants. In contrast to Musi Rawas Regency, between 2014 and 2018, there were no additional restaurants and restaurants, only 107 units. Meanwhile, Musi Rawas Utara Regency is the youngest regency, until 2018 it only has 23 restaurants. Meanwhile, the accommodation sector that absorbs the most workforce is in the city of Palembang, where in 2015 it reached the highest figure, namely 3,602 labors, while the accommodation sector in Banyuasin Regency was the lowest in the Regency / City that absorbed tourism destinations, namely until 2018 only 56 labors.

Based on the background and phenomena above, this research aims to determine and analyze the effect of tourist destinations amount, hotels amount, restaurants amount, and labors amount on income in the accommodation, food and beverage sector in South Sumatra Province.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Tourism Destination

According to Yoeti (2013: 11), tourism destinations are geographic areas such as countries, islands or cities as locations that can attract tourists to stay temporarily, which comprises various tourism products. According to Wahab (2013: 34), a tourist destination is another place outside the residence that encourages someone to travel for various interests, whether due to economic, social, cultural, political, religious, health or other interests such as just wanting to, adding experience or to study.

According to Gamal (2013: 19), the factors that affect a tourism object include: (a) Attractiveness. Generally, the attractiveness of a tourist object is based on the existence of resources caused a feeling of pleasure, beauty, comfort and cleanliness, (b) Accessibility factors, include: transportation networks, travel time, and road conditions, (c) Facility factors. Facilities that provide services for tourists to increase comfort in recreation, (d) safety factor. Tourists will be happy to visit a place if they feel safe, serene, fearless, protected and free from crimes, violence, threats, such as pick-pocketing, extortion, muggings, fraud and so on, (e) Promotion and information, usually used by parties managers to provide information about tourist destinations by potential tourists.

## Accommodation Sector

According to Endar (Sulastiyono, 2011: 55), accommodation is a means of providing lodging services complemented with food and drink services and other services. According to Sulastiyono (2011: 56), accommodation in tourism is a building or part of a building that is specially provided, and everyone can stay, eat, and get other services and facilities with payment.

According to Sulastiyono (2011: 58), accommodation can be divided into 3 types, namely: (a) Commercial accommodation. Accommodation that is built and operated solely for maximum profit, (b) Semi-Commercial Accommodation. Accommodation that is built and operated not only for commercial, but also for social purposes (poor people), and (c) Non-Commercial Accommodation. Accommodation that is built and operated solely for non-commercial purposes, i.e. not for profit or only for social or assistance purposes free of charge, but specifically for certain groups and also for certain purposes.

## Food and Drink Sector

Based on the Minister of Tourism and Creative Economy Regulation Number 11 of 2014, it is explained that a restaurant is a business providing food and beverage services equipped with equipment and supply for making, storing and serving process in a fixed place that does not move around to make a profit. According to Atmodjo (2015: 7), a restaurant is a place or building that is commercially organized, which provides excellent service to all consumers in the form of food or drinks.

According to Soekresno (2012: 18), there are three product components marketed by restaurants, namely: (a) Food and Beverage. Many foods and beverages can be served, according to the characteristics of the restaurant, (b) Service. Include service methods, hospitality, valet parking, special attention such as birthdays, entertainment, and photo complements for customers, and (c) Ambience. Include themes, lighting, uniforms, furniture, cleanliness, fixtures, decorations, and table arrangement.

## Framework for Thinking

Based on the research background, problem formulation and theory used, the framework for thinking is as follows:

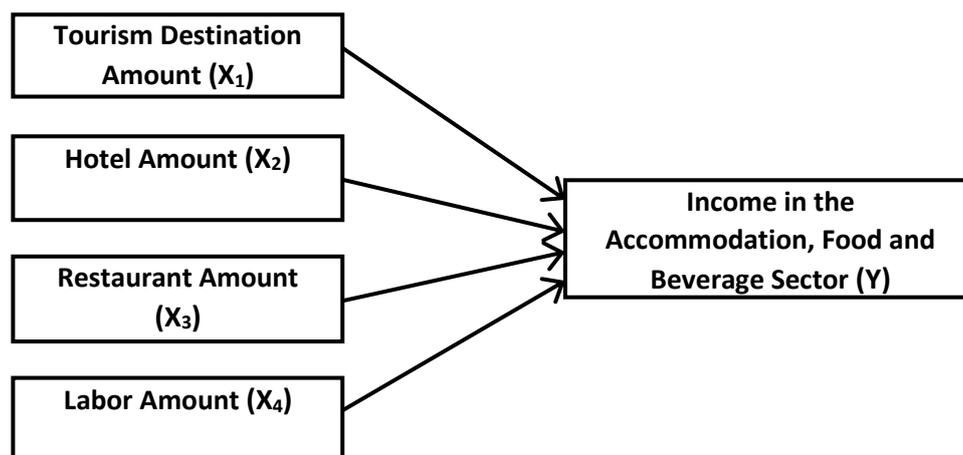


Figure 2.1. Framework of Thinking

## Hypothesis

Based on the formulation of the problem, research objectives, and the framework for thinking above, the hypothesis adopted in this study, namely:



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H<sub>1</sub> : There is no positive and significant effect on tourism destinations amount, hotels amount, restaurants amount, and tourism destinations amount simultaneously on income in the accommodation, food and beverage sector in South Sumatra Province.

H<sub>2</sub> : There is no positive and significant effect on tourism destinations amount, hotels amount, restaurants amount, and labors amount partially on income in the accommodation, food and beverage sector in South Sumatra Province.

## 3. RESEARCH METHODOLOGY

### Research Design

This study used associative design. This study will regress 4 independent variables, i.e. tourism destinations amount (X<sub>1</sub>), hotels amount (X<sub>2</sub>), restaurants amount (X<sub>3</sub>), and the tourism destinations amount (X<sub>4</sub>) on one dependent variable, namely the accommodation, food and beverage sector (Y) using E-views.

### Type and Data Resource

The type of data used is secondary data, include general description, vision and mission of the Local Government of South Sumatra Province, tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount, and the provision of accommodation, food and beverages, as well as other documents required in this study. The data source used in this study came from the Central Bureau of Statistics (BPS), South Sumatra Province.

### Data Collection Technique

The data collection technique in this research is documentation technique. The documents that the authors need in this study include an overview, vision and mission of the Local Government of South Sumatra Province, tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount and the provision of accommodation, food and beverages, as well as other documents required in this study.

### Population and Sample

The population in this study were tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount, as well as the provision of accommodation, food and beverages to the local government of the province of South Sumatra from the time they were first established and collected until 2018.

The samples of tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount, and the provision of accommodation, food and beverages used in this study were tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount, as well as the provision of accommodation, food and beverages from 2013 to 2018.

### Classic assumption test

Classical assumption tests are used, including the normality test using the Jarque-Bera (J-B) test, and the multicollinearity test using the Variance Inflation Factor (VIF) method. The heteroscedasticity test used the White test, and the autocorrelation test used the Breusch-Godfrey test.

### Panel Data Regression Analysis

To determine the panel data regression equation using the following formula:

$$AMM = \alpha + \beta_1 \cdot \Sigma DS + \beta_2 \cdot \Sigma HO + \beta_3 \cdot \Sigma RE + \beta_4 \cdot \Sigma TK + e$$

Information:

AMM = Accommodation, Food and Beverage Sector

$\alpha$  = Constant Value

$\beta_1.. \beta_6$  = Regression Coefficient

$\Sigma DS$  = Tourism Destination amount

$\Sigma HO$  = Hotel amount



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$\Sigma RE$  = Restaurant amount  
 $\Sigma TK$  = Labour amount  
 $e$  = Error of Term

## Determination Coefficient Test (R<sup>2</sup>)

The coefficient of determination to measure how far the model's ability to explain the variation in dependent variable. The coefficient of determination is applied because there are more than two independent variables.

## Hypothesis test

Hypothesis test using the F test (simultaneous test) and t-test (partial test). Hypothesis F (simultaneous test) used is as follows:

H<sub>0</sub>: There is no positive and significant effect on tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount simultaneously on income in the accommodation, food and beverage sector in South Sumatra Province.

H<sub>a</sub>: There is a positive and significant influence on tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount simultaneously on income in the accommodation, food and beverage sector in South Sumatra Province.

The hypothesis t (partial test) proposed is as follows:

H<sub>0</sub>: There is no positive and significant effect on tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount partially on income in the accommodation, food and beverage sector in South Sumatra Province.

H<sub>a</sub>: There is a positive and significant influence on tourism destinations amount, hotels amount, restaurants amount, tourism destinations amount partially on income in the accommodation, food and beverage sector in South Sumatra Province.

## 4. RESULTS AND DISCUSSIONS

### Classical Assumption Test Results

Based on the results of calculations using the Eviews 7 program, data normality test results obtained, as follows:

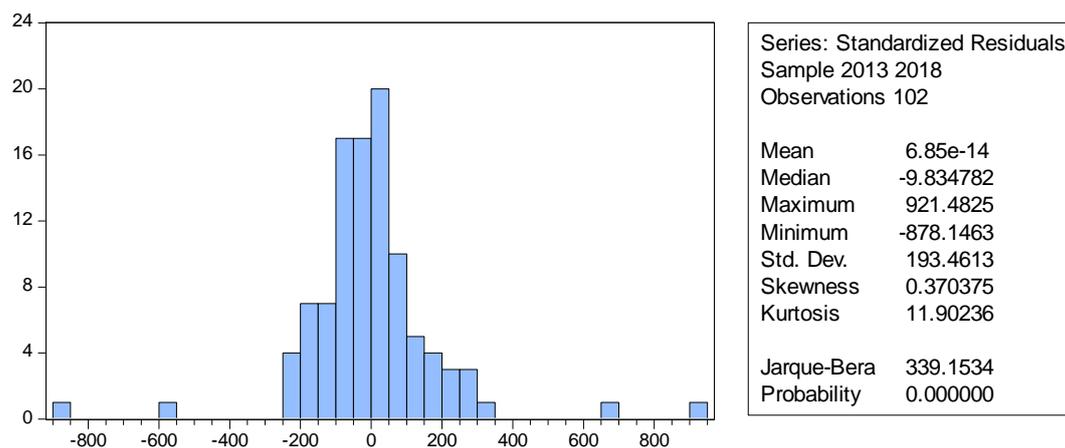


Figure 4.1. Data Normality Test Results

In Figure 4.1. obtained the Jarque-Bera probability value of 0.0000; means Jarque-Bera prob (0.0000)  $< \alpha$  (0.05), we can conclude it that the data used are normally distributed and feasible to be analyzed by panel regression.

Based on the results of calculations using the Eviews 7 program, it obtained the multicollinearity test results, as follows:



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**Table 4.1. Multicollinearity Test Results**

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	35.98766	20.64554	NA
DS	0.015241	43.75664	1.783738
HO	0.013625	44.75757	2.463632
RE	0.017236	40.65643	2.839333
TK	0.015456	42.64721	1.937642

**Source: Data Processing Results**

In Table 4.1., It can be seen that the Centered VIF value of the tourism destinations amount ( $\Sigma DS$ ) variable is 1.783738; means the VIF value ( $1.783738 < 10$ ); variable Hotels amount ( $\Sigma HO$ ) of 2.463632; means the VIF value ( $2.463632 < 10$ ); restaurants amount variable ( $\Sigma RE$ ) of 2.839333; means the VIF value ( $2.839333 < 10$ ), and the variable tourism destinations amount ( $\Sigma TK$ ) is 1.937642; means the VIF value ( $1.937642 < 10$ ), we can conclude it that these variables do not occur multicollinearity, because all the Variance Inflation Factor (VIF) values are still below the number 10.

Based on the results of calculations using the Eviews 7 program, the Heteroscedasticity test results are obtained, as follows:

**Table 4.2. Heteroscedasticity Test Results**

Heteroskedasticity Test Breusch-Pagan-Godfrey

F-statistic	5.115923 Prob F(4,75)	0.1251
Obs*R-squared	5.618327 Prob. Chi-Square (2)	0.1633
Scaled Explained SS	14.97464 Prob. Chi-Square (2)	0.1365

**Source: Data Processing Results**

In Table 4.2, it can be explained that the probability value of *chi square* (2) on Obs\*R-Squared is 0.1633, so that the p-value ( $0.1633 > 0.05$ ), so the research data does not contain heteroscedasticity, it can be tested by panel regression.

Based on the results of calculations using the Eviews 7 program, the autocorrelation test results are obtained, as follows:

**Table 4.3. Autocorrelation Test Results**

Cross-section fixed (dummy variables)

R-squared	0.977624	Mean dependent var	304.3520
Adjusted R-squared	0.972098	S.D. dependent var	708.3104
S.E. of regression	118.3144	Akaike info criterion	12.56581
Sum squared resid	1133862.	Schwarz criterion	13.10624



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Log likelihood	-619.8563	Hannan-Quinn criter.	12.78465
F-statistic	176.9437	Durbin-Watson stat	1.750122
Prob(F-statistic)	0.000000		

### Source: Data Processing Results

In Table 4.3. above, the Durbin Watson Stat value is 1.750122; means it is still in the range 1.54-2.46, so we can conclude the data used in this study does not contain autocorrelation and is suitable for analysis with panel regression..

### Panel Regression Analysis

Based on Chow test and Hausmann test results, the panel regression used in this study is a fixed effect. Based on the results of calculations using the Eviews 7 program, the panel regression test results obtained with the fixed effect method, which are as follows:

**Table 4.4. Panel Regression Testing Results and Hypothesis t**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.20364	2.957635	4.123398	0.0001
DS	1.531595	1.284258	3.895108	0.0000
HO	0.564628	0.765973	2.040283	0.0343
RE	1.323524	0.471976	3.685467	0.0000
TK	0.759518	0.122329	2.304005	0.0295

### Source: Data Processing Results

Based on Table 4.4. As mentioned above, a Panel Regression equation can be formed, namely as follows:

$$AMM = \alpha + \beta_1 . \Sigma DS + \beta_2 . \Sigma HO + \beta_3 . \Sigma RE + \beta_4 . \Sigma TK + e$$

$$AMM = 13,20364 + 1,531595 . \Sigma DS + 0,564628 . \Sigma HO + 1,323524 . \Sigma RE + 0,759518 . \Sigma TK$$

Based on the panel regression equation above, it can be interpreted the effect of each independent variable on the dependent variable. The regression coefficient value of the tourism destinations amount ( $\Sigma DS$ ) variable is 1.531595; means that the effect of the tourism destinations amount on income in the accommodation, food and beverage sector is 1.531595 (directly proportional); so if the tourism destinations amount increases by one unit, it can increase the accommodation, food and beverage sector by 1.531595 units. Conversely, if the tourism destinations amount decreased by one unit, it could reduce the accommodation, food and beverage sector by 1.531595 units.

The regression coefficient value of hotels amount ( $\Sigma HO$ ) variable is 0.564628, meaning that the effect of hotels on amount income in the accommodation, food and beverage sector is 0.564628 (directly proportional); if there is an increase in hotels amount by one unit, it will increase the Accommodation, Food and Beverage Sector by 0.564628 units. Conversely, if there is a decrease in hotels amount by one unit, it will reduce the Accommodation, Food and Beverage Sector by 0.564628 units.

The regression coefficient value of restaurants amount ( $\Sigma RE$ ) is 1.323524, so the effect of restaurants amount on income in the accommodation, food and beverage sector is 1.323524 (directly proportional); so that if there is an increase in restaurants amount by one unit, it will increase the Accommodation, Food and Beverage Sector in South Sumatra Province by 1.323524 units. Likewise,

if there is a decrease in restaurants amount by one unit, it can reduce the Accommodation, Food and Beverage Sector in South Sumatra Province by 1.323524 units.

The regression coefficient value of tourism destinations amount ( $\Sigma TK$ ) is 0.759518, meaning that the effect of tourism destinations amount on income in the accommodation, food and beverage sector is 0.759518 (directly proportional); so that if there is an increase in tourism destinations amount by one unit, it will be able to increase the Accommodation, Food and Beverage Sector in South Sumatra Province by 0.759518 units. Likewise, if there is a decrease in tourism destinations amount by one unit, it can reduce the Accommodation, Food and Beverage Sector in South Sumatra Province, which is 0.759518 units.

### Determinant Coefficient Test Results (*R-Square*)

Based on the results of calculations using the eviews 7 program in Table 3.4., It can be seen that the R Square value is 0.977624 (97.76%), which means that the Accommodation, Food and Beverage Sector in South Sumatra Province can be explained by Tourism Destinations amount, Hotels amount, Restaurants amount, and tourism destinations amount of 97.76%, while the remaining 2.24% is explained by other factors not discussed in this study, such as Hotel Rooms amount, Hotel Tax, Restaurant Tax, and other. So that if there are other researchers who want to conduct research in the same field, you should include these factors as research variables, so as to come with a better research.

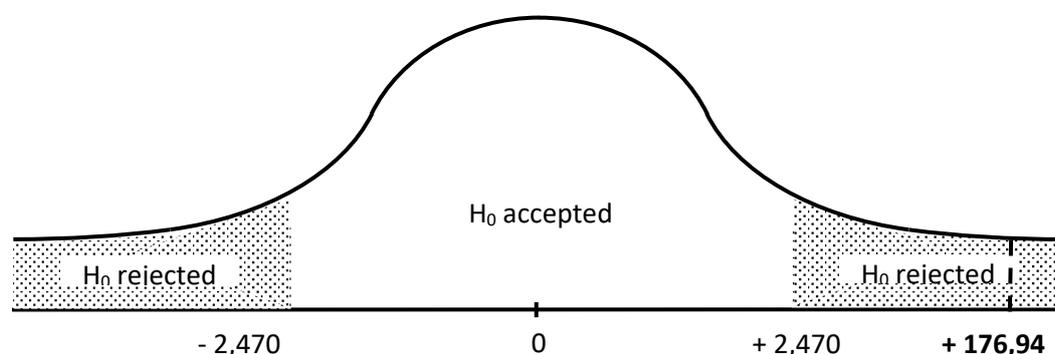
### Hypothesis Test Results

#### Hypothesis F test Results (Simultaneous Test)

Based on the results of calculations using the eviews 7 program, as in Table 4.3., The F-count for the variable tourism destinations amount, hotels amount, restaurants amount, and tourism destinations amount simultaneously to income in the accommodation, food and beverage sector is equal to 176.9437 and Prob. (F-statistic) of 0.000000.

F-table value with real level ( $\alpha$ ) = 5% (0.05), denominator (df) = (nk-1) = (102-4-1) = 97 and (k) = 4 (5%; 97 ; 4) in the amount of + 2,470 (Attachment 5). So that F-count (176.9437) > F-table (2.470) or Sig F (0.000000) <  $\alpha$  (0.05), then  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a positive and significant influence on tourism destinations amount, Hotels amount, Restaurants amount, and tourism destinations amount simultaneously to income in the accommodation sector, Food and Beverage in South Sumatra Province.

For more details, the following will be attached with the hypothesis test curve F, as follows:



**Figure 4.2. Hypothesis F test curve**

**Source: Data Processing Results**

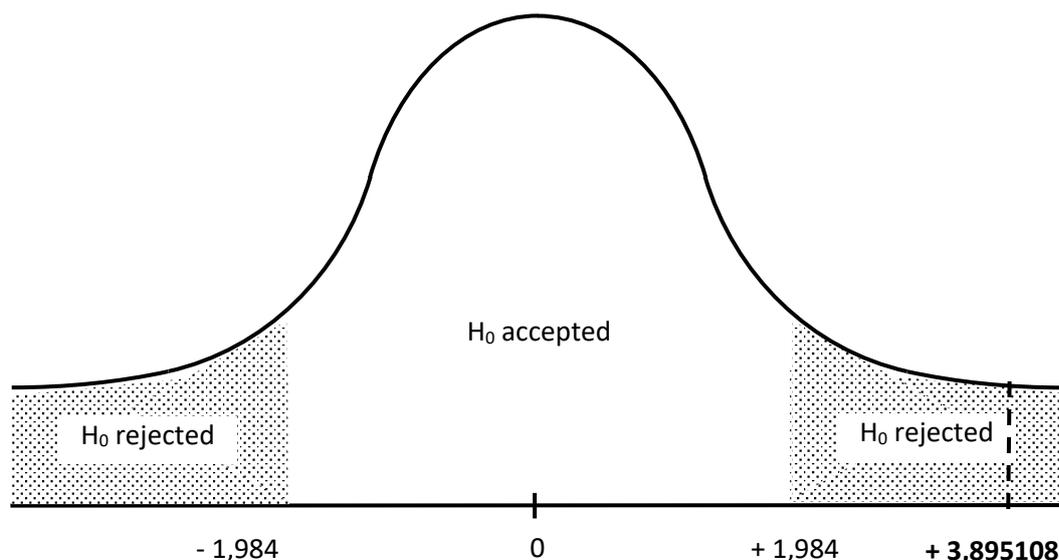
Based on Figure 4.2. above, it can be explained that the F-count falls into the Hypothesis rejection area. This reinforces the previous test decision, namely rejecting  $H_0$  and accepting  $H_a$ .

### Hypothesis t Test Results (Partial Test)

Based on Table 4.4. It can be seen that the t-statistic (t-count) value for each variable, namely the effect of tourism destinations amount ( $\Sigma DS$ ) on income in the accommodation, food and beverage (AMM) sector is 3,895108 and prob. t-statistic of 0.0000; t-statistic value (t-count) the effect hotels amount ( $\Sigma HO$ ) on income in the accommodation, food and beverage (AMM) sector, amounting to 2.040283 and prob. t-statistic of 0.0343; the value of t-statistic (t-count) the effect of restaurants amount ( $\Sigma RE$ ) on income in the accommodation, food and beverage (AMM) sector, amounting to 3.685467 and prob. t-statistic is 0.0000, and the t-statistic value (t-count) of the effect of tourism destinations amount ( $\Sigma TK$ ) on income in the accommodation, food and beverage (AMM) sector is 2.304005 and prob. t-statistic of 0.0295.

The t-table value with  $\alpha = 5\%$  (0.05),  $df = (n-2) = (102-2) = 100$ , meaning that the t-table value (5%; 100), is + 1.984 (Appendix 5), then it can be described the level of significance of each independent variable on the dependent variable. The t-statistic value (t-count) of the effect of tourism destinations amount ( $\Sigma DS$ ) on income in the accommodation, food and beverage (AMM) sector is 3.895108 and the prob value. t-statistic of 0.0000; means the value of t-count ( $3.895108 > t\text{-table } (1.984)$ ) and the value of Sig. t ( $0.0000 < \alpha (0.05)$ ), so that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a positive and significant effect of tourism destinations amount on income in the accommodation, food and beverage sector in South Sumatra Province.

For more details, the t hypothesis test curve will be attached below on the effect of tourism destination amount ( $\Sigma DS$ ) on income in the accommodation, food and beverage (AMM) sector, as follows:



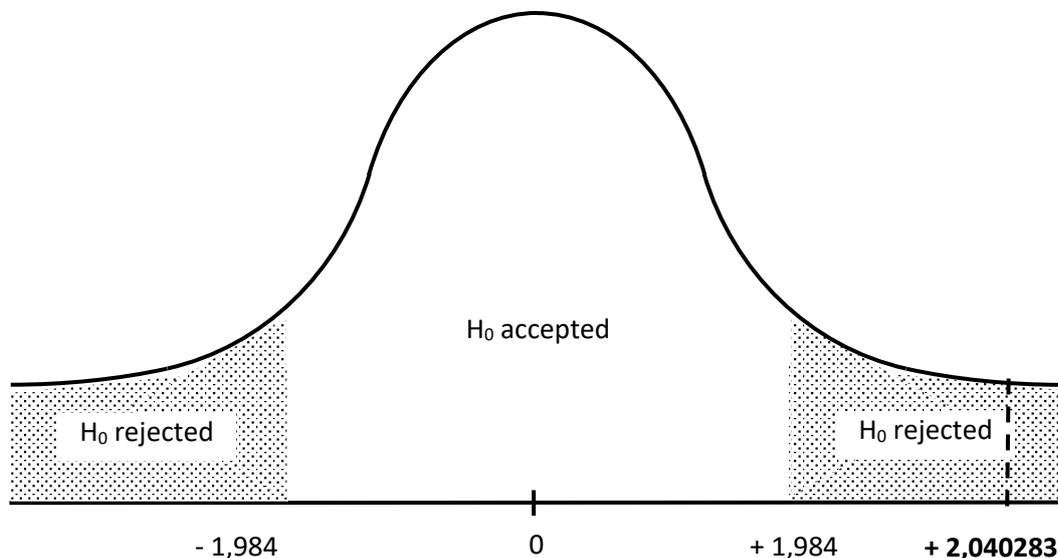
**Figure 4.3. Hypothesis t test curve on the Effect of Tourism Destinations amount ( $\Sigma DS$ ) in Accommodation, Food and Beverage Sector (AMM)**

**Source: Data Processing Results**

Based on Figure 4.3., It can be explained that the t-count value on the effect of the number of tourist destinations ( $\Sigma DS$ ) on income in the accommodation, food and beverage (AMM) sector is included in the hypothesis's rejection. This reinforces the previous test decision, namely rejecting  $H_0$  and accepting  $H_a$ .

The t-statistic value (t-count) of the effect of hotels amount ( $\Sigma HO$ ) on income in the accommodation, food and beverage (AMM) sector is 2.040283; then the value of t-count ( $2.040283 > t\text{-table } (1.984)$ ), and the value of prob. t-statistic ( $0.0343 < \alpha (0.05)$ ); so that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a positive and significant effect of hotels amount on income in the accommodation, food

and beverage sector in South Sumatra Province. For more details, the following will attach the t hypothesis test curve on the effect of hotels amount ( $\Sigma HO$ ) on income in the accommodation, food and beverage (AMM) sector, as follows:

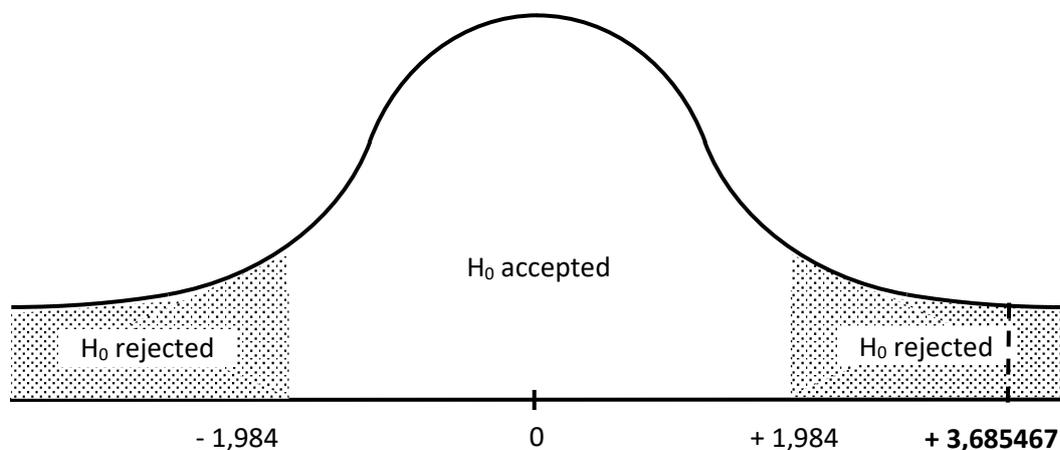


**Figure 4.4. Hypothesis t test curve on the Effect of the Number of Hotels ( $\Sigma HO$ ) in the Accommodation, Food and Beverage Sector (AMM)**

**Source: Data Processing Results**

Based on Figure 4.4. the t-value on the effect of hotels amount ( $\Sigma HO$ ) on income in the accommodation, food and beverage (AMM) sector, hit into the area of rejection of the hypothesis. This reinforces the previous test decision, namely rejecting  $H_0$  and accepting  $H_a$ .

The t-statistic value (t-count) of the effect restaurants amount ( $\Sigma RE$ ) on the variable of the accommodation, food and beverage (AMM) sector is 3.685467; then the t-count value (3.685467) < t-table (1.984), and the prob value. t-statistic (0.0000) <  $\alpha$  (0.05); so that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a positive and significant effect of restaurants amount on income in the accommodation, food and beverage sector in South Sumatra Province. For more details, the following will attach the t hypothesis test curve on the effect of restaurants amount ( $\Sigma RE$ ) on income in the accommodation, food and beverage (AMM) sector, as follows:



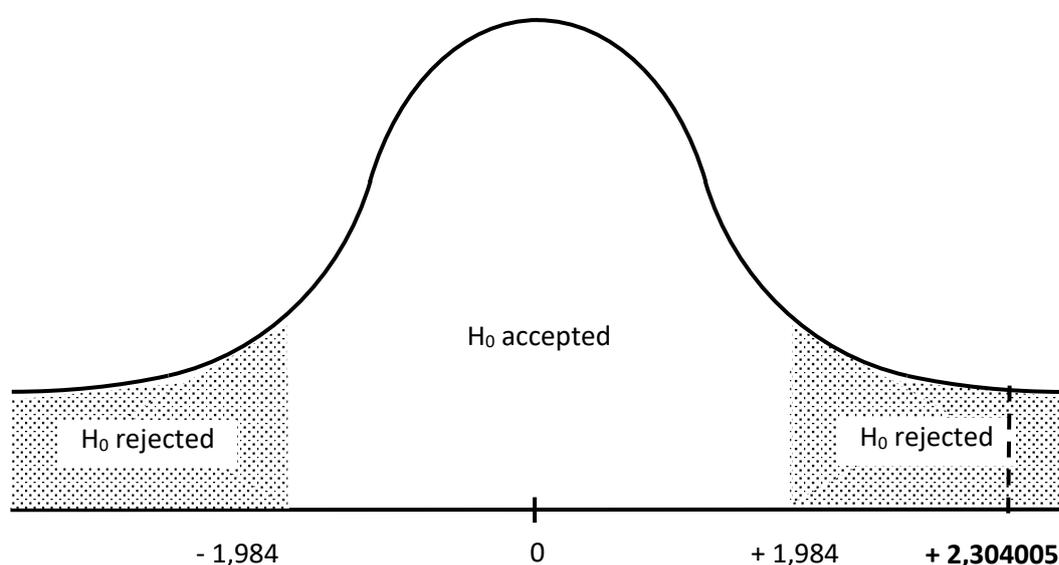
**Figure 4.5. Hypothesis t test curve on the Effect of Restaurants amount ( $\Sigma RE$ ) on**

## Accommodation, Food and Beverage Sector (AMM)

Source: Data Processing Results

In Figure 4.5. shows that the t-value on the effect of restaurants amount ( $\Sigma RE$ ) on income in the accommodation, food and beverage (AMM) sector, hit into the rejection area of the Hypothesis. This reinforces the previous test decision, namely rejecting  $H_0$  and accepting  $H_a$ .

The t-statistic value (t-count) of the effect of the variable tourism destinations amount ( $\Sigma TK$ ) on the variable of the accommodation, food and beverage (AMM) sector is 2.304005; then the value of t-count ( $2.304005 > t\text{-table } (1.984)$ ), and the value of prob. t-statistic ( $0.0295 < \alpha (0.05)$ ); so that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a positive and significant effect of tourism destinations amount on income in the accommodation, food and beverage sector in South Sumatra Province. For more details, the following will be attached with the t hypothesis test curve on the effect of tourism destinations amount ( $\Sigma TK$ ) on income in the accommodation, food and beverage (AMM) sector, as follows:



**Figure 4.6. Hypothesis t test curve on the Effect of Tourism destinations Amount ( $\Sigma TK$ ) on Accommodation, Food and Beverage Sector (AMM)**

Source: Data Processing Results

Figure 4.6. shows the t-count value on the effect of tourism destinations amount ( $\Sigma TK$ ) on income in the accommodation, food and beverage (AMM) sector get into the area of rejection of the hypothesis. This reinforces the previous test decision, namely rejecting  $H_0$  and accepting  $H_a$ .

## 5. CONCLUSION

Based on the results and discussion in the previous chapter, several things can be concluded:

1. There is a positive and significant influence on tourism destinations amount on income in the accommodation, food and beverage sector in South Sumatra Province.
2. There is a positive and significant effect of hotels amount on income in the accommodation, food and beverage sector in South Sumatra Province.
3. There is a positive and significant effect of restaurants' amount on income in the accommodation, food and beverage sector in South Sumatra Province.
4. There is a positive and significant effect of tourism destinations amount on income in the accommodation, food and beverage sector in South Sumatra Province.



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5. There is a positive and significant influence on tourism destinations amount, hotels amount, restaurants amount, and tourism destinations amount simultaneously on income in the accommodation, food and beverage sector in South Sumatra Province..

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## THE EFFECT OF ISLAMIC SOCIAL REPORT ON BANKING PERFORMANCE BASED ON MAQASID INDEX IN INDONESIAN SHARIA COMMERCIAL BANKS

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### Abstract

**Purpose** - Identify the influence of social responsibility with Islamic Social Report on Banking Performance using the Maqashid Syariah approach.

**Design/methodology/approach** - This research was conducted with a quantitative approach. The data used are secondary data. The data analysis technique used is panel data regression analysis. The techniques used to collect data are documentation and literature study.

**Findings** - Islamic Social Report has a significant positive effect on bank performance with the Maqashid Index on Islamic Commercial Banks in 2014-2018.

**Limitation** – This study uses a research period of 5 years and examines the objects of Islamic banking that only exist in Indonesia. The calculation of Maqashid sharia uses the maqashid index according to Abu Zahra's view.

**Contribution** - This research can see the compliance of sharia banking in Indonesia by looking at the results of the maqashid index so that the public and interested parties can find out which Islamic Commercial Banks have the highest to lowest index scores. In addition, this study can also see that Islamic Commercial Banks are the most transparent in disclosing their social responsibility reports. This study shows the relationship of Islamic Social Report to maqashid syariah.

**Keywords:** *Islamic Social Report, Shari'ah Maqashid*

### 1. INTRODUCTION

The banking sector is a major player both in the scope of micro and macro economy. From a micro perspective, the bank is a public trust institution, entrusted to store public fund and lend credit for the public in various economic transactions. Through a macro perspective, the bank has the function of enforcing monetary policy issued by the central bank. (Warjiyo, 2006). The functions of banks must run well to help stabilize the financial sector. The main key to adequately run a banking sector is to have the public trust, whereby the banking sector is the consumer and its business area is the community.

Banking in Indonesia is not only based on conventional principles. There are also banking based on sharia principles. Banking based on sharia principles does not only fulfill its responsibilities to humans but also to God (Soediro & Meutia, 2018). Islamic banking also contributes to national development and has the same urgency and function as conventional banking. Islamic banking seeks to serve the public as a whole and become an alternative choice for Indonesians (Maski, 2010). Having the same urgency as conventional banking makes Islamic banks have to maintain public trust, so that the financial performance and sharia compliance of Islamic banking creates an image for Islamic banking. The existence of social responsibility is a way to maintain public trust.

Measuring the performance of Islamic banks uses sharia-based measurements. Sharia-based performance measures such as using the Maqashid Sharia Index. Maqashid syariah is actually also the



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goal of Islamic banks. Maqashid sharia has the meaning of purpose so that it has a concept of benefit which plays an important role in determining Islamic law with the goal of benefiting both in the world and in the hereafter (Mutakin, 2017).

Islamic banking social responsibility is represented by the Islamic Social Report. The desire to fulfill this responsibility spiritually is the background for the emergence of Islamic Social Report (Haniffa, 2002). Islamic Social Report is not only a reporting that aims for Muslim management to make a decision but also directs companies to fulfill their obligations to Allah and society (Haniffa, 2002). Islamic Social Report also provides a good image for the company in the community. Islamic Social Report was chosen as the independent variable because it represents sharia compliance that can support the performance of Islamic banking in Indonesia.

Research with Islamic Social Report as an independent variable influences the performance of Islamic banks with maqashid syariah Islamic Social Report affects the performance of maqashid sharia (Atiqah & Rahma, 2018), (Mardliyyah, Pramono, & Yasid, 2020), (Dusuki, 2007) Research from Santika (2019) show that Islamic Social Report has no effect on performance. Measuring bank performance is very important to see if the bank has a good level of health or not. Previous research used the measurement of the performance of Islamic banking which is equated with conventional banking. Performance of Islamic banking should be measured using tools or approaches that are in accordance with the concept of sharia. In addition, what affects the performance of Islamic banking must also be measured. In connection with the above background, the researcher will examine the effect of Islamic Social Report on the performance of Islamic banking with the Maqashid Index.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### LITERATURE REVIEW

Sofyani, Ulum, Syam, & Wahyuni (2012) The variables in their research are Islamic social reports covering finance and investment, products and services, employees, society, environment, corporate governance. The research method used qualitative methods and types of comparative research with secondary data. The results of his research indicate that the overall social performance of Islamic banking in Malaysia is higher than in Indonesia. The social performance of Islamic banking in Indonesia in 2010 experienced a significant increase, around 10% from the previous year. Meanwhile, social performance in Islamic banking in Malaysia is stable because it is neither increasing nor decreasing. However, of all the Islamic banks, both Indonesian and Malaysian, none achieved a very good level of performance.

Arshad, Othman, & Othman (2012) The variables in their research are the independent variables of Islamic Social Report and the dependent variable: company reputation and company performance (crep, roa, roe, and total assets). The research method is a quantitative method with content analysis. The results of this study provide evidence that the CSR activities presented in the company's annual report have a significant positive relationship with company reputation and company performance. These results suggest that CSR activities and disclosure from an Islamic perspective are both important business strategies in creating sustainable superior performance for organizations.

Atiqah & Rahma (2018) The variables in their research are the independent variables of Islamic Social Report & Islamic Corporate Governance. Meanwhile, the dependent variable: maqashid syariah. The method used is a quantitative method with secondary data. effect on maqashid sharia, *Islamic Social Report* while *Islamic Corporate Governance* has a significant does not have a significant effect.

Santika (2019) the variable in this study is the independent variable: *Islamic Social Report* the dependent variable is banking performance. The method used is the quantitative method. The result of this research is that ISR has no effect on banking performance at Islamic Commercial Banks. Mardiyah, Pramono and Yazid (2020) in this study the independent variable is *Islamic Social Report*,



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while the dependent variable is Maqashid sharia. The quantitative method used. The result of this research is that ISR has a significant positive effect on bank performance using the Maqashid Sharia Index.

Antonio, Sanrego, & Taufiq (2012) The variables in this study include *Tahdzib al-Fard (Educating individuals)*, *Iqamah Al-Adl (Establishing justice)*, and *Maslahah. (Well-being)*. The results of the analysis show that the Islamic banking industry in Indonesia, represented by BSM (0.539%) and BMI (0.505%), respectively, shows better performance than Islamic banking in Jordan by JIB (0.356%) and IIABJ (0.452%). Mudharabah and Musharakah / Total Investment show that the Islamic banking industry in Indonesia also shows a better performance than Jordan where BMI (6.326%), BSM (4.971%), IIABJ (0.213%), and JIB (0.184%). The last measurement on the *Maqashid Index is Welfare* with indicators of *Net Profit / Total Assets, Zakat / Net Assets, Investments in the Real Sector / Total Investment* presented Sharia banking performance in Indonesia is better than Jordan where BMI (11.008%), BSM (10.680%), IIABJ (9.63%), and JIB (7.612%).

Finarti & Putra (2015) the independent variable of Maqashid syariah, the dependent variable in this study is Corporate Social Responsibility. The results of this research indicate that the implementation of CSR at BRI Syariah is relevant to al maqashid asy sharia. This is evidenced by the five main components of Maqashid sharia, namely: 1) Protection of religion, 2) Protection of human life / soul, 3) Protection of thoughts, 4) Protection of welfare, 5) Protection of lineage. Meanwhile, based on the measurement of Maqashid sharia CSR at BRI Syariah, it can be seen that the program indicator according to Maqashid sharia is protection of the human soul in 2012 with a total of 30 activities that cost Rp. 941,305,000. The percentage of distribution of CSR funding is 46% and in 2013 there were 52 activities with total funding of 985,870,000, the percentage of distribution of funding was 50%.

Sari, Ismail, & Ekawaty (2019) The independent variable in this study is the *Maqashid index* Sharia, the dependent variable is the social value of the Jordan company. The results showed that all of these banks have a low Sharia Maqashid Index for all indicators, which means that the practice of implementing the social values of Islamic banks in Jordan is still not as expected, especially for indicators of justice and maslahah / social welfare. Islamic banks need to increase social contributions, especially on indicators of justice and maslahah / social welfare.

Mohammed et al. (2008) research variables are performance ratios, performance indicators and overall maqashid index. The research method is a behavioral operationalization approach. The results have shown variations in the performance of the selected Islamic banks. No single bank is able to achieve high performance. across all seven performance ratios, alternatives and performance indicators. Such variations indicate inconsistencies on the part of individual Islamic banks to focus on overall objectives.

Harahap, Hermain, Siregar, & Maharani (2017) the independent variables in this study are the Islamic Social Report, company age, dependent variable public ownership: financial performance with ROA. According to the results of the T-test analysis, it shows that all variables have a significant effect on profitability (ROA).

Siddi, Widiastuti, & Chomsatu (2019) The independent variables in this study are company size, profitability, the dependent variable is the Islamic Social Report on environmental performance using quantitative methods with secondary data. The results show that company size affects ISR disclosure. Meanwhile, profitability and environmental performance have no effect on ISR disclosure.

The focus of research on maqashid sharia is maqashid sharia is used as a performance measurement in Islamic organizations. Maqashid sharia itself is a goal to reach maslahah. Research that examines the effect of Islamic Social Report on Maqashid Syariah Research from (Atiqah & Rahma, 2018), (Mardiyah, Pramono and Yazid, 2020) that ISR affects financial performance with maqashid sharia.



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Research from (Arshad, Othman, & Othman, 2012), (Santika, 2019) states that ISR has no effect on banking financial performance. *The research gap* in this study is that this study uses *annual report* the latest from 2014 to 2018. Testing Islamic banking in Indonesia which has been a sample of 9 banks. Using measurement of the two variables based on sharia.

## MAQASID SHARIA

*Maqasid*, etymology wise, is defined as goal(s). Meanwhile, *alsyariah* is defined as the path in which it leads to a water source (Ramadhan, Abdurahim, & Sofyani, 2018) and in the perspective of sharia, this implies 'the way' (Al-Qaradhawi, 2007). Maqasid sharia, essentially, is defined as steps taken to achieve welfare. This is manifested either in the form of benefits that are achieved or the harms that are avoided (Sahroni & Karim, 2015). Accordingly, this concept plays an important role in the implementation of Islamic law where the outcome must generate welfare both in the world and in the hereafter (Mutakin, 2017). According to Abu Zahra, Maqasid Sharia is divided into three elements, namely *tahdzib al-fard* (education for individuals), *iqamah al-adl* (justice), and *maslahah* (benefits/welfare). Abu Zahra's view of the Maqasid Sharia has now been developed to be integrated into tools that measure and evaluate the performance of Islamic or sharia banking (Syafii, Sanrego, & Taufiq, 2012).

## SYARIAH ENTERPRISE THEORY (SET)

Sharia Enterprise Theory is a theory in which it places Allah as the source of the main mandate; the sole and absolute owner of the world herein (Triyuwono, 2006). The most important basis of Shariah Enterprise Theory is that Allah is the creator and sole owner of all the resources in this world and whom individuals work towards. The mandate that Allah has given, in regards to companies, is that accountability and transparency should be upheld. Vertically, business entity must be accountable to Allah, and horizontally, they must be accountable to the community (stakeholders) and nature/world as a whole (Mulawarman, 2011).

## ISLAMIC SOCIAL REPORT

Islamic Social Report is designed to help present a report accountable Allah and the stakeholders of an institution. Islamic Social Report can also increase the transparency of business activities; providing the relevant information needed by Muslims in their decision-making (Haniffa, 2002). Company reports, such as financial statements, are the implications that arise to demonstrate a company's responsibility over their activities during a period of time. Financial reports also provide information on decisions that must be taken by stakeholders (Ramadhan, 2018).

## HYPOTHESIS DEVELOPMENT

Social responsibility for Islamic financial institutions is called the Islamic Social Report. The basis of this Islamic Social Report is that Islamic banking is not only responsible for humans and the environment but also to Allah. Social responsibility can improve the financial performance of a sharia financial institution because it can improve the image of the banking system. The better the image of the banking system, the more trust the public has, whereas if it gets worse, the level of public trust will decrease. Decreasing trust will affect profitability and bank business continuity (Purwanto, 2011). This is in accordance with research from (Atiqah & Rahma, 2018), (Yazid & Pramono, 2020) and based on research from Dusuki (2007) that Corporate Social Responsibility is an important component in maqashid sharia. Based on this research and explanation, the following hypothesis can be formulated:

H1: Islamic Social Report Affects the Maqashid Index in Indonesian Sharia Commercial Banks.

## 3 RESEARCH METHODOLOGY

To test the hypotheses formulated in this study, a quantitative approach was used. The data used was secondary data sourced from the 2014-2018 Sharia Commercial Bank annual report in Indonesia as



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the research sample. The data analysis technique used was panel data regression analysis. The techniques used to collect data were documentation and literature study.

The present study used panel data regression analysis technique, in which the data is a combination of cross section data and time series data (Nachrowi & Usman, 2006). The panel data regression model used in this study is as follows:

$$IMS_{it} = \alpha + \beta_1 ISR_{it} + \varepsilon_{it}$$

Panel data regression models were estimated with several approaches, namely the Common Effect (Ordinary Least Square), Fixed Effects Model (Fixed Effect, Random Effect Model). Panel data analysis can be done using three tests, namely the F statistical test (chow test), the Hausman test, and the Lagrange multiplier test. The data to be examined, before being processed with linear regression, was first tested with the classical assumption test. The classical assumption test consisted of normality test, heteroscedasticity test, autocorrelation test, and multicollinearity test. Hypothesis testing was done using partial t test and f test, simultaneously.

### POPULATION AND SAMPLE

The population in this study is Islamic Commercial Banks in Indonesia, in which up to 2018, there were 14. The sample used in this study was determined by nonprobability sampling using the purposive sampling method. In particular, the sample was selected based on certain considerations and specific purposes (Sudaryono, 2017).

The banks considered in the sampling had criteria of: First, the Sharia Bank (SB) was supervised and registered under the Financial Services Authority (OJK). Second, the Sharia Commercial Bank was officially reckoned and had fulfilled the rules and regulations of banking. Third, the bank actively operated in the year 2014 to 2018. Fourth, the bank had annual reports published in the year 2014 to 2018, as per the research period. Fifth, the bank had a published social responsibility report.

**Table 1 Sample**

No	Sharia Commercial Bank
1.	Bank Muamalat Indonesia
2.	Bank BRI Syariah
3.	Bank BNI Syariah
4.	Bank Syariah Mandiri
5.	Bank Mega Syariah
6.	Bank Panin Dubai Syariah
7.	Bank Syariah Bukopin
8.	Bank BCA Syariah
9.	PT. Bank Tabungan Pensiunan Nasional Syariah

### OPERATIONAL VARIABLES

#### MAQASID SHARIA

According to Abu Zahra, Maqasid Sharia is divided into three elements, namely tahdzib al-fard (education for individuals), iqamah al-adl (justice), and maslahah (benefits/welfare).

**Table 2 Maqashid Sharia**

Concept	Element	Performance Ratio	Data Source	Average Magnitude (100%)*	Average Magnitude (100%)*
Education	E.1 Education grants	R.1 Education grants/total income	Annual Report	30	24
	E.2 Research	R.2 Research expenses/ Total annual expenses	Annual Report		27
	E.3 Training	R.3 Training expenses/ Total expenses	Annual Report		26



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	E.4 Publicity	R.4 Publicity expenses/Total expenses	Annual Report		23
			Total		100
Justice	E.5 Fair change	R5. Net profit/Total income	Annual Report	41	30
	E.6 Fair Price	R6. Mudharabah and Musharakah / Total Funding	Annual Report		32
	E.7 Interest free products	R7. Interest free income/ Total income	Annual Report		38
			Total		100
Public Interest	E.8 Profitability	R8. Pendapatan bersih/Total aktiva	Annual Report	29	30
	E.9 Personal income	R9. Zakat / Laba Bersih	Annual Report		33
	E.10 Investments in the real economy sector	R10. Investmens in the real economy sector/ Total Investment	Annual Report		37
			Total	100	100

Mohammed, Dzuljastri, dan Taib (2008: 9)

$$K_x (IM_x) = W_1(E_1^1 \times R_1^1 + E_1^2 \times R_1^2 + E_1^3 \times R_1^3 + E_1^4 \times R_1^4)$$

$$K_1 (IM_1) = 30\% (24\% \times R_1^1 + 27\% \times R_1^2 + 26\% \times R_1^3 + 23\% \times R_1^4)$$

$$K_2 (IM_2) = 41\% (30\% \times R_2^1 + 32\% \times R_2^2 + 38\% \times R_2^3)$$

$$K_3 (IM_3) = 29\% (30\% \times R_3^1 + 33\% \times R_3^2 + 37\% \times R_3^3)$$

### ISLAMIC SOCIAL REPORT

The Islamic Social Reporting has six indicators, namely investment and finance, products and services, labor, social responsibility, environmental responsibility and organizational governance (Haniffa, 2002).

**Table 3 Islamic Social Report Parameters**

No.	Indicator	Description
1.	Investment and Finance	Identification of transactions and income contributions from usury. Identification of gharar transactions and income from gharar. Identification of the amount of zakat and zakat recipients.
2.	Products and Services	Identification of the halal or haram status of a product and its contribution to income. Identification of products that naturally do not harm the environment.
3.	Labor	Disclosures of employee salaries, employee work activities (e.g., working hours), and employee education and training; all information relating to employees were disclosed.
4.	Social responsibility	Amount and recipients of alms, disclosure of the type and value of waqaf, as well as the number and recipients of qard hasan.
5.	Environmental responsibility	Disclosure of resource usage. Company activities must not damage the environment.



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6. Company policy The company organization must disclose any prohibited activities such as monopoly or others that violated the law.

These six main indicators were specified into 48 items. Islamic social reporting was assessed using the scoring method and each item was assigned a score. The value 0 was assigned for items with no disclosure in the annual report and the value 1 was assigned for items that were disclosed. The disclosure level was determined with the following formula (Z. Ramadhan, 2018):

$$\text{Disclosure level} = \frac{\text{Disclosure score assigned}}{\text{Total maximum score}}$$

#### 4 RESULTS AND DISCUSSION

The results of the calculation of the value of the Islamic Social Report and the Maqashid Index for Islamic Commercial Banks during 2014-2018 are

**Table 4 MSI ISR Results**

<b>Bank</b>	<b>Umum</b>	<b>IMS</b>	<b>ISR</b>
<b>Syariah</b>			
Bank Muamalat Indonesia		0,332	0,686
Bank Mandiri Syariah		0,30	0,766
BNI Syariah		0,273	0,75
BCA Syariah		0,326	0,544
Bank Mega Syariah		0,268	0,548
Bank Panin Dubai Syariah		0,346	0,602
Bank Bukopin Syariah		0,333	0,578
BTPN Syariah		0,334	0,508
BRI Syariah		0,320	0,664

Bank Muamalat Indonesia throughout 2014-2018 its Islamic Social Report is in a good category with the highest disclosure index of 0.72. Bank Mandiri Syariah has an Islamic Social Report index that tends to increase and for four years it has been categorized as good. In 2018 Bank Mandiri Syariah in the disclosure of the Islamic Social Report was categorized as very good with an index value of 0.81. BNI Syariah has a fluctuating index value from 2014 to 2015 in the good category, 2016 and 2018 in the very good category and in 2017 the category is good. The value of the BCA Syariah index has increased from the four years from 2014 to 2017 it was categorized quite then in 2018 it was categorized as very good. Bank Mega Syariah tends to increase from year to year with sufficient disclosure category. Panin Dubai Syariah Bank has an Islamic Social Report disclosure index value that tends to increase and is constant in the sufficient and good category. Bank Bukopin disclosures of Islamic Social Report from year to year have increased in categories from sufficient to good. The BTPN Syariah Islamic Social Report disclosure index experienced a decrease in 2017 and then the index rose again in 2018 categorized as sufficient. BRI Syariah has an adequate category index value in 2014-2015 and good in 2016-2018.



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The Maqashid Sharia Index which is taken from Abu Zahra's opinion is divided into three concepts, namely education, justice and the public interest. The purpose of the maqshid of Sharia is to achieve benefit. Every mashlahat is either in the form of benefits achieved or harm that is avoided (Sahroni & Karim, 2015). Sharia Commercial Banks should be built with the aim of providing as much benefit to the community as possible. It is in accordance with the basic principle of Sharia that everything that is done must be based on the Quran. Based on table 4.3, we know that the bank that has the highest value in the calculation of maqshid Sharia is Panin Dubai Syariah, then BTPN Syariah and the third is Bank Bukopin Syariah. Meanwhile, the lowest value of the 9 banks calculated is Bank Mega Syariah. The score for the Maqashid Syariah Index in Indonesia in 2014-2018 was below 0.50. This index value illustrates that overall Islamic banking in Indonesia has not made the substance of the vision of Islam represented by the objectives of the sharia to be achieved in the economic field as the main goal, namely strengthening the quality of human resources through education and welfare and upholding economic justice (Rama & Ali, 2018).

### DETERMINING A REGRESSION MODEL

#### MODEL FIT TEST: CHOW TEST

Determining the most suitable model in this study so that the model suitability test is carried out. In table 2 you can see the results of the Chow Test.

**Table 5 Chow Test**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.166217	(8,34)	0.0015

Source: Data processed, 2020

The Chow test is a test to determine the fixed effect or common effect model that is most appropriate to use in estimating panel data. If the prob value  $<0.05$  then choose the fixed effect over the common effect. If the Prob value  $> 0.05$  then choose the common effect from the fixed effect. Based on table 4.7, the Chi Square cross-section probability value is 0.0015, so the probability value in the chow test is 0.0015  $<0.05$ , meaning that the most appropriate model to use based on the chow test is the fixed effect.

#### HAUSMAN TEST

Determining the most suitable model in this study after the chow test was carried out, followed by the Hausman test. In table 3, you can see the results of the Hausman Test.

**Table 6 Hausman Test**

Test Summary	Chi-Sq Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.087547	2	0.0106

Source: Data processed, 2020

The Hausman test is a statistical test to select a fixed effect or random effect model. Based on table 3, the Hausman Test probability value is 0.0160. Value 0.0160  $<0.05$  from the Hausman test, the best model to use is the fixed effect model.

This study uses panel data regression analysis techniques. There are three models used in panel data regression, namely the Common Effect Model, Fixed Effect Model, and the Random Effect Model. It is necessary to determine the best model to be brought into the research being carried out. One of the



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methods used to determine the best model is to compare the R2 value in each estimation result of the panel data model.

### R2 VALUE IN PANEL DATA ESTIMATION

Determining the appropriate model by comparing the R2 value in each model can be seen in table 7

**Table 7 Nilai R<sup>2</sup> Setiap Model**

Variabel Dependen	Nilai R <sup>2</sup>		
	Common	Fixed	Random
Indeks Maqashid Syariah	0.062079	0.569067	0.016504

Data: Data processed in 2020

Based on table 4, it shows the value when the dependent variable of the Maqashid Syariah Index, the highest R2 value is the fixed effect compared to the common effect and random effect. With a high value of R2 fixed effect, it means that the appropriate model used in this study is the fixed effect model.

### CLASSIC ASSUMPTION TEST

#### AUTOCORRELATION TEST

The results of the autocorrelation test in the data of this study can be seen in table 4:12 on the results of the D-W test.

**Tabel 8 D-W Test**

Durbin-Watson stat	1.752065
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Source: Processed Data, 2020

Based on the table above, the D-W test results are 1.752065. This study uses data for 5 years and has 9 banks of research objects so that the dw table shows dL 1.4298 and dU 1.6148. 4-dL has a value of 2.5702 and 4-dU 2.3852. The results obtained were  $dL < dU < D-W < 4-dU < 4-dL$  so that it could be concluded that there was no autocorrelation in this study.

### HETEROSCEDASTICITY TEST

The results of the Heteroscedacity Test can be seen in table 6

**Table 9 Heterokedacity Test Results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.092282	0.046106	2.001500	0.0518
ISR	0.006211	0.054317	0.114347	0.9095

Source: Data processed, 2020

Based on the table above, the probability value of the ISR when tested for heteroscedasticity is 0.2464 and 0.9095. ISR variable value of  $0.9095 > 0.05$ , so it can be concluded that the data in this study were not affected by heteroscedasticity.

### HYPOTHESIS TEST

#### T-TEST RESULTS

The results of hypothesis testing separately using the t-test with IMS as the dependent variable can be seen in table 7



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Variable	Coefficient	Std. Error	t-Statistic	Prob.
ISR	0.126499	0.044782	2.824763	0.0079

Source: Processed Data, 2020

Based on the table above, it means that the independent variable ISR variable probability value is  $0.0079 < 0.05$ , with a significant level of 95 percent ( $\alpha = 5$  percent), so  $H_0$  is rejected and  $H_a$  is accepted. The regression coefficient of the ISR is positive at 0.126499. This means that the ISR has a positive effect on maqshid index, the higher the ISR, it becomes a factor for increasing maqashid index

### RESULT OF THE COEFFICIENT OF DETERMINATION ( $R^2$ )

The results of the coefficient of determination in this study, the dependent variable, namely the Sharia Maqashid Index, can be seen in table 8

R-squared	0.569067
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Based on the results of the determination coefficient test in table 8, the coefficient of determination is 0.569067, which means that the IMS variable is determined by the variation of the ISR variables of 56.90 percent. It means that the other 43.1 percent is determined by other variables outside the regression model used in the study.

## DISCUSSION

### THE EFFECT OF ISLAMIC SOCIAL REPORT ON BANKING PERFORMANCE WITH THE MAQASHID INDEX

Bank Muamalat Indonesia throughout 2014-2018 its Islamic Social Report is in a good category with the highest disclosure index of 0.72. Bank Mandiri Syariah has an Islamic Social Report index that tends to increase and for four years it has been categorized as good. In 2018 Bank Mandiri Syariah in the disclosure of the Islamic Social Report was categorized as very good with an index value of 0.81. BNI Syariah has a fluctuating index value from 2014 to 2015 in the good category, 2016 and 2018 in the very good category and in 2017 the category is good. The value of the BCA Syariah index has increased from the four years from 2014 to 2017 it was categorized quite then in 2018 it was categorized as very good. Bank Mega Syariah tends to increase from year to year with sufficient disclosure category. Panin Dubai Syariah Bank has an Islamic Social Report disclosure index value that tends to increase and is constant in the sufficient and good category. Bank Bukopin disclosures of Islamic Social Report from year to year have increased in categories from sufficient to good. The BTPN Syariah Islamic Social Report disclosure index experienced a decrease in 2017 and then the index rose again in 2018 categorized as sufficient. BRI Syariah has an adequate category index value in 2014-2015 and good in 2016-2018.

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namely strengthening the quality of human resources through education and welfare and upholding economic justice (Rama & Ali, 2018).

### 5 CONCLUSION

The conclusion of this study is that the Islamic Social Report has a significant positive effect on bank performance with the Maqashid Index on Islamic Commercial Banks in 2014-2018. The results of the maqashid sharia using the Maqashid Index show that there are no Islamic commercial banks in Indonesia that reach an index value of 0.50. This means that sharia banking is expected to pay attention to compliance and Islamic principles. The Islamic Social Report shows that there is no BUS that reaches the maximum disclosure value. It is expected that Islamic banking will pay more attention to social responsibility in accordance with sharia principles. The decline in trust will affect the company's performance and business continuity. The main component to create a good and good corporate image is the social responsibility of the banking company (Purwanto, 2011). The better the corporate social responsibility, the better the company's image and will improve the company's performance.

### LIMITATION AND STUDY FORWARD

#### LIMITATION

This study uses a research period of 5 years and examines the objects of Islamic banking that only exist in Indonesia. The calculation of Maqashid sharia uses the maqashid index according to Abu Zahra's view.

#### STUDY FORWARD

This research took 5 years and the banks studied were 9 banks. While the independent variable studied was only the Islamic Social Report on the Maqashid Index. It is hoped that further research can increase the number of banks and the number of variables that affect the maqashid of sharia to be more accurate and get a clear picture and to know other variables that have a significant effect on maqashid sharia.

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### APPENDIX

#### *Islamic Social Report List*

No	Items disclosure of Islamic Social Report
<b>A</b>	<b>Theme of Finance and Investment</b>
1	Activities containing usury
2	Activities containing gharar
3	<i>Zakat</i>
4	Policies in dealing with late payments
5	Added Value
<b>B</b>	<b>Theme of Products and Services</b>
6	Products or environmental operation activities
7	Halal status of products
8	security and product quality
9	customer complaints / service to consumer complaints
<b>C</b>	<b>Employee</b>
10	Hours of Work
11	Education and Training
12	Benefits received by employee
13	Remuneration / Salaries / Wages of Employees
14	Health and safety
15	Work environment
16	Jobs from other groups who have needs specifically (physical, ex-convict, ex-drug addict)
17	higher echelons in the company perform congregational prayers with lower and middle level managers.
18	Muslim employees are allowed to perform their obligatory prayers during certain times and fasts during Ramadan on their working days.



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19	An appropriate place of worship for employees.
20	Equality of Rights
21	Employee involvement in management discussions and decision making
22	Holidays
<b>D</b>	<b>Community Themes</b>
23	<i>Saddaqa</i> / Donations
24	<i>wakaf</i>
25	<i>Qard Hassan</i>
26	Zakat or donations from employees
27	Education: plans to establish schools, scholarships
28	Empowerment of school graduates / lectures
29	Development Youth
30	Improving the quality of life of the poor
31	Caring for children
32	Other social activities sponsoring health, sports, education events, etc.
<b>E</b>	<b>Environmental</b>
33	conservation
34	Activities to reduce the effects of global warming
35	Environmental education
36	Independent verification statements or environmental audits / certification from institutions
37	Environmental Management System / Policy
<b>F</b>	<b>Corporate Governance Themes</b>
38	Status of Compliance with Sharia
39	Board of Directors Profile
40	Share ownership structure
41	Declaration of prohibited activities: monopolistic practices / stockpiling of necessary goods / price manipulation / fraudulent business practices / gambling
42	anti-corruption policies
43	T The company's aim to achieve blessings

(Othoman & Thani, 2009)



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## THE IMPACT OF TOURISM SECTOR, FOREIGN INVESTMENT AND ECONOMIC GROWTH ON INCOME INEQUALITY IN SUMATERA ISLAND

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### **Abstract**

The purpose of this study to analyze the impact of the tourism sector, foreign direct investment and economic growth on income inequality in the island of Sumatera. The data used in the study are data from 2011 to 2018 in the Ten Provinces in Sumatera Island. This study used panel data regression analysis with Fixed Effect research model with Eviews. The results showed that the tourism sector had a negative and significant effect on income inequality on Sumatera Island. That is, if the tourism sector has increased it is able to reduce income distribution inequality on the island of Sumatra. Foreign direct investment has a positive and significant effect on income inequality on the island of Sumatra. That is, if the level of foreign investment increases, there will also be an imbalance in the distribution of income due to uneven investment between regions. Economic growth has no effect on income inequality on the island of Sumatera. This means, when economic growth increases, development equality is not felt enough by all groups. So when economic growth increases it does not have any effect on inequality.

**Keywords:** *Income Inequality, Tourism Sector, Foreign Direct Investment, Economic Growth*

### **1. INTRODUCTION**

Development requires a multidimensional stage which focuses on major changes in social and institutional structures, including accelerating economic growth, reducing inequality, and alleviating poverty (Todaro & Smith, 2011). Inequality of income distribution is a tendency that must be faced and provide solutions so as not to increase. The Gini Index is a measure of inequality or inequality in the distribution of aggregate income whose numbers range from zero to one. If it is close to zero then the income distribution shows perfect evenness, on the contrary the coefficient that is getting closer to one means that the income distribution shows perfect inequality.

In the last decade, many developing countries have paid special attention to the tourism industry. The tourism sector is one of the fastest growing economic sectors in the world through growth and a level of diversification. The United Nations World Trade Organization (UNWTO) stated that in 2015 tourism contributed 10% of the total world GDP, offering 1/11 of the existing job opportunities, generating USD1.5 trillion of exports, which is 7% of the total exports in the world and 30 % of all service exports. Indonesia's contribution in the tourism sector to Gross Domestic Product (GDP) ranks fourth, behind oil and gas, coal and palm oil investment and the rate of economic growth.

Differences in natural, social, economic, and natural resources owned by each region can cause obstacles to equitable economic development due to the concentration of several economic activities which have an impact on economic growth in some areas that have abundant natural resources. Owned natural wealth should be able to add value in increasing economic development. These advantages are expected to have a trickle down effect. The natural resources owned by each province in Indonesia are different and unequal. This is one of the causes of inequality or disparity between regions (Kuncoro, 2003).

The island of Sumatra is part of Indonesia which consists of 10 provinces, namely Aceh, North Sumatra, West Sumatra, Riau, Jambi, South Sumatra, Bengkulu, Lampung, Riau Islands and Bangka Belitung Islands which cannot be separated from the problem of economic inequality. This is due to



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differences in characteristics between provinces which have a strong influence on the creation of economic development patterns in a region, so that it makes sense if the pattern of economic development between regions is not evenly distributed. This inequality affects the ability to grow which consequently results in some regions being able to grow rapidly while others are growing slowly. This ability to grow then causes inequality in both development and income between regions

Alam & Reddy, 2016 states that the tourism sector can reduce inequality in income distribution in developing countries. Uzar et al., 2019 states that tourism will reduce inequality or increase income distribution in an area. Gatti, 2013 states that tourism expansion has a positive impact on household welfare, but the impact is smaller than expected to reduce inequality in income distribution. In contrast to Nuryanto's research (2018) using multiple linear regression analysis techniques, the results of his research indicate that tourism in Bali is insignificant towards income distribution inequality, meaning that the tourism sector in Bali has not been able to reduce income distribution figures.

Rinjani (2015) in his research using panel data analysis methods showed that economic growth had a positive and significant effect on inequality in income distribution. Meanwhile, foreign investment has a negative and significant effect on income distribution inequality, then different from the research conducted by (Bantika, 2015) using the method of multiple linear regression analysis shows that economic growth has a negative and significant effect on income distribution inequality.

Development in spatial scope is indeed not always equitable so that it will cause unequal distribution of income between regions. The growth of Indonesia's tourism sector among its contribution at the macroeconomic level is reflected in the reduction in poverty levels and improved income. while on the other hand, economic growth that has been achieved has not been able to overcome the problems caused by uneven development. This is caused by the resources owned by each region is different. Then there is an uneven investment allocation in each of these areas which will cause imbalances and differences in income distribution between these regions.

This paper is motivated by various empirical studies on the interrelation of the tourism sector, foreign investment and economic growth on income inequality variables. Therefore this study aims to see the effect of these three variables on income inequality on the island of Sumatra.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Alam & Reddy, 2016 examined the impact of tourism on income inequality and looking at the Kuznets Curve hypothesis found that income distribution inequality is caused because the benefits of tourism development are only limited to the upper class in society, such as tourism service providers, entrepreneurs, investors and managers of tourism companies. In addition, the Kuznets curve hypothesis between tourism revenue and income inequality where if the level of tourism revenue doubles, it will significantly reduce income inequality in developing countries.

Uzar et al., 2019 with the research title "Can tourism be a key sector in reducing income inequality? An empirical investigation for Turkey ", shows that tourism can reduce income inequality by expanding and spreading tourism throughout society.

Research by Raza & Shah, 2017 states that tourism has a positive effect on full income inequality and is sampled by region. In addition, the Kuznets curve hypothesis is also tested which concludes that if the country under study increases the tourism income of the area it will help the region reduce income inequality.

Furthermore, Carrascal Incera & Fernández, 2015 conducted a study on the impact of tourism on income inequality in Galicia, Spain, it shows that bound tourism causes a slight increase in income inequality in Galicia.



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Suanes (2016) examines the relationship between FDI and income inequality by sector in Latin America with the research title "Foreign direct investment and income inequality in Latin America: A sectoral analysis." The results of this study show that there is a positive relationship between foreign direct investment and income inequality. Foreign direct investment in the service sector and manufacturing industry can increase income inequality.

The research entitled "Foreign Direct Investment and Income Inequality in Central and Eastern Europe" by Mihaylova, 2015 analyzes the relationship between foreign direct investment and income inequality, the results of the analysis show that foreign direct investment and income inequality have a positive relationship. Foreign direct investment in the service sector and manufacturing industry can increase income inequality. Furthermore, research conducted by Gatti (2013) shows that tourism expansion has a positive impact on household welfare, but the impact is smaller than expected to reduce inequality in income distribution.

Riyanto dkk (2019) in his research "The Impact of Tourism on Income Distribution and Poverty Reduction in Indonesia" said that the tourism sector has a role in reducing the level of income inequality. Then, Nuryanto, (2018) in his research "Tourism, economic growth and income distribution inequality in Bali (Kuznets Curve Hypothesis)" stated based on the results of panel data regression from 9 districts / cities in Bali for 2006-2015 through the Common Effect, Fixed Effect and Random Effect, this study found that the tourism sector and economic growth have an influence on the increase in the level of inequality in the distribution of people's income

Putri et al., (2015) in their study "Analysis of factors affecting economic growth and income inequality in Indonesia" shows that investment variables have a positive and significant effect on economic growth and income inequality. Then, economic growth has a positive and significant effect on income dispritas.

Further research was carried out by Rinjani, (2015) by analyzing the factors that affect the inequality of income distribution in Indonesia with the variables in this study, namely Economic Growth, HDI, PDRB Per Capita, PMDN and FI on income inequality, showing that economic growth has a positive and significant to the inequality of income distribution. Meanwhile, FI has a negative and significant effect on inequality in income distribution.

Prasetya et al., (2019) in his research "Analysis of Tourism Sector Expenditure on Labor Wage Inequality in Indonesia" analyzes the effect of foreign tourist spending, government spending and foreign investment on labor wage inequality in the Indonesian tourism sector, showing that tourist and government spending increases inequality in the short term. , however, in the long run, it can reduce wage inequality.

Research conducted by Susilo (2017) in "Analysis of factors affecting income inequality in Central Java Province (2010-2015)" The results of this study show that the economic growth variable does not have an effect on income disparities. Rosyadi (2014) in "Analysis of Factors Affecting Inequality of Income Distribution between Provinces on the Island of Sumatra" results from economic growth research which is illustrated by the Growth Rate of Gross Regional Domestic Product at 2000 Constant Prices which has no effect on inequality in income distribution.

Research conducted by Adipuryanti and Sudibia (2015) analyzed the effect of the number of people working and investing on inequality in income distribution through economic growth in districts / cities in Bali Province. This study used non-participant observation data collection methods. The analysis technique used is path analysis and secondary data types from 2007 to 2013 with the research variable the number of working population, investment and economic growth on inequality of income distribution. The results of the analysis found that economic growth has a positive and significant



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effect on inequality in income distribution, while investment has no effect on inequality in income distribution

Furthermore, based on research by Pradnyadewi & Purbadharmaja, (2017) it shows that investment does not have a direct and significant effect on inequality in income distribution. Economic growth as an intervening variable that affects HDI and infrastructure costs indirectly on inequality in income distribution

Further research by Sultan and Sodik (2010) to analyze income inequality in DIY-Central Java states that foreign investment has a negative and significant effect on income inequality. Furthermore Hartini, (2017) in a study "The Effect of Per Capita PDRB, Investment and HDI on Inequality of Income Between Regions in Yogyakarta Province 2011-2015" using data in the form of crosssection of 5 districts / cities in DI Yogyakarta Province and time series during 2011-2015 which processed by panel data analysis with fixed effect model regression shows the results, all research variables simultaneously influence income inequality. Partially the per capita GRDP variable has a positive and significant effect on income inequality, while investment and the human development index have a negative and significant effect on income inequality.

Research by Istiqamah (2018) in "The effect of economic growth on income inequality and poverty (a study of provinces in Indonesia) using secondary data from 2010-2016 in 34 Indonesian provinces analyzed by panel data regression shows the results that during 2010-2016 Indonesia's average economic growth is 5.65 percent. The average Gini Ratio in Indonesia is 0.40, which means that Indonesia's inequality is at a moderate level of inequality. Economic growth has a significant positive effect on income inequality

### **Income Inequality Theory**

According to Kuznets (Kuncoro, 2006) explains that inequality is guided by the relative standard of living in all communities, because the gap between regions occurs because of differences in production factors and available resources. This difference causes the level of development and income distribution in each region to be different, giving rise to differences in welfare in the various regions.

Kuznets further stated that at an early stage of growth economy, income distribution will deteriorate, but over time, income distribution will increase along with the distribution of income. This observation has become known as the "inverted U" kuznet curve, because of the longitudinal (time-series) changes in the income distribution.

The theory of inequality of income distribution can be said to start from the emergence of a hypothesis, namely the inverted U-hypothesis proposed by Simon Kuznet. Kuznet (1955) stated that at first when development began, the distribution of income would be more uneven, but after reaching a certain level of development, the distribution of income would be more even.

### **Tourism Sector**

According to Spillane (2001) tourism is a trip from one place to another, temporarily carried out individually or in groups, as an effort to find balance and harmony and happiness with the environment in the social, cultural as well as natural and scientific dimensions.

Based on the UNWTO definition, tourism is a social, cultural and economic phenomenon that is defined as the movement of people outside the state or their home environment for personal or business / professional purposes, mostly based on motives for recreation. These people are called tourists (or tourists, either resident or non-resident) who carry out tourism-related activities, some of which can be measured by tourism expenditure.



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The tourism sector is a collection of production units in different industries that provide goods and services that tourists especially need. In the TSA tourism is viewed from a supply and demand perspective. Tourism from the demand side refers to the activities of tourists and their role in obtaining goods and services. On this side, concepts related to the duration of the trip, the purpose of the trip, and the classification of tourists are explained. Then, it also explains the concept and scope, categories regarding tourist expenditure, including the formation of tourism capital. From the supply side, tourism is understood as a series of productive activities in providing services to tourists. On this side, the definitions, classification of tourism products, characteristics of tourism activities and the tourism industry are explained.

### **Foreign Investment**

Foreign investment (FI) is a key element in international economic integration. FI creates a direct, stable and long lasting relationship between the economies. FI is also considered to be able to encourage the transfer of technology and knowledge between countries, and enable the host economy to promote its products more widely in international markets. In addition, FI is also a source of additional funds for investment and, under the right policy environment, can become an important vehicle for development.

FI can encourage economic growth and development in investment destination countries. Economic growth is influenced by consumption, investment, government spending, and net exports in the country. A country that gets a flow of foreign investment into the country will encourage higher economic growth

Investments are considered more profitable if they are allocated to areas that are able to generate large returns in a relatively fast period of time. The market mechanism will in fact cause inequality, where relatively developed regions will grow faster while less developed regions have relatively slow growth rates. This is what causes income inequality between regions, so a plan and policy is needed in directing investment allocation towards a more balanced economic progress in all regions of the country (Sjafrizal, 2012).

### **Economic Growth**

Economic growth illustrates the extent to which economic activity will generate additional public income in a certain period (Jhingan, 2016). According to Todaro (2011), economic growth is an increase in community output or output caused by the increasing number of production factors used in the community production process. Economic growth can be defined at its simplest as an increase in output or an increase in aggregate national income over a certain period of time. Economic growth is also associated with an increase in "output per capita".

### **Correlation of the Tourism Sector to Inequality of Income Distribution**

Tourism is one of the largest economic sectors and has the fastest growth rate in the world. Tourism has become one of the main sources of revenue for many countries. Activities from the food and drink sector as well as accommodation are supporting factors for the tourism sector in GRDP. With the increasing GRDP in the tourism sector, it will be able to reduce income inequality in a region.

### **Correlation between FI and Inequality in Income Distribution**

Foreign Investment (FI) is an investment activity carried out by the private sector and shown to be profitable and driven by increased income. If income increases, then consumption will also increase. It is an important concern when investment is concentrated in a few areas. This is based on investors who prefer to invest in areas that have good infrastructure. This makes regions that receive a lot of investment and regions that receive less investment will have a difference in the income received by the community so that it can increase inequality in the distribution of community income.

### **Correlation of Economic Growth to Inequality of Income Distribution**



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The problem of inequality in income distribution is a complicated problem in the implementation of economic development, especially in developing countries such as Indonesia. For low-income groups, this condition causes lower purchasing power and a lower level of welfare for the population of that group.

Increased economic growth coupled with reduced inequality in income distribution is a representation of the success of a country's economic development, and basically economic growth, either directly or indirectly, will still affect regional inequality.

### Hypothesis

Income inequality is influenced by the tourism sector, foreign investment and economic growth. If the GRDP of the tourism sector increases, it is expected to reduce the inequality of income distribution between regions. Likewise with FDI and economic growth. The higher the foreign investment in an area is expected to reduce the inequality of income distribution in that area and the increasing rate of economic growth in an area is also expected to reduce income inequality in various regions.

The hypothesis used in testing is as follows:

- H1 = The tourism sector has a negative effect on inequality income
- H2 = FI has a negative effect on income inequality
- H3 = Economic growth has a positive effect on income inequality

### 3. RESEARCH METHODOLOGY

The type of data used in this study is secondary data. The data used includes data from the tourism sector as seen from the GDP of the food and drink and accommodation sector, foreign investment, economic growth and income inequality on the island of Sumatra. This data was obtained by the bps.go.id and bkpm.go.id. in the period from 2011 to 2018. This research uses descriptive and quantitative analytical methods. This analysis will explain the influence of the tourism sector, foreign direct investment, and economic growth on income inequality by using panel data, namely a combination of time series and cross section.

#### Regression Analysis

Panel data is a combination of time series and cross section or panel data is data that has the same cross section unit and is carried out every time Gujarati, (2012). Panel data regression models are used with the aim that individuals have different characters that can be seen together. The use of panel data will also increase the number of research observations when compared to using a time series or cross section alone with a relatively small number of observations. In this study, panel data regression was also used to determine the effect of the tourism sector, foreign investment, economic growth on income inequality in Sumatra Island.

The basic model of panel data, namely:

$$Y_{it} = \beta_1 X_{1it} + \beta_2 X_{2it} + \mu_{it}$$

From the above model, you can write a formula with variables:

$$\text{Gini}_{it} = \alpha + \beta_1 T_{it} + \beta_2 FI_{it} + \beta_3 \text{GDP}_{it}$$

Where :

- Gini = Gini Index
- T = GRDP of the tourism sector (food and drink and accommodation)



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FI	= foreign investment
GDP	= rate of economic growth
i	= type of province
t	= time series
$\beta_1, \beta_2, \beta_3$	= Regression Coefficient for Each Variable

## Estimating Regression Using Panel Data

There are 3 basic approach techniques used in estimating regression models with panel data, which:

### 1. Pooled Least Square Model (Common Effect)

This approach method does not pay attention to the individual dimension or time. It is assumed that the data behavior between regions is the same over time. This model only combines the two data regardless of the difference between time and individuals, so it can be said that this model is the same as the OLS (Ordinary Least Square) method because it uses ordinary small squares. In several panel data studies, this model is often never used as the main estimate because of the nature of this model that does not differentiate between the behavior of the data so as to allow bias, but this model is used as a comparison of the other two model choices.

### 2. Fixed Effect Approach Model (Fixed Effect)

This model approach uses a dummy variable known as the fixed effect model or the Least Square Dummy Variable or also known as the Covariance Model. In the fixed effect method, estimation can be done with no weighted or Least Square Dummy Variable (LSDV) and with a weight (cross section weight) or General Least Square (GLS). The purpose of weighting is to reduce the heterogeneity between cross section units. The use of this model is appropriate to see changes in the data behavior of each variable so that the data is more dynamic in interpreting data

### 3. The Random Effect Model Approach

The third approach panel data model is the random effects model. In the fixed effect model, including a dummy is intended to represent our ignorance of the actual model. However, the consequence is that the degree of freedom is reduced, which in turn reduces the efficiency of the parameter. To solve this problem, an error term known as the random effect can be used. This model estimates panel data in which the disturbance variables may be interrelated over time and between individuals Widarjono, (2013)

There are three choices of panel data regression estimation techniques. First, the F statistical test (Chow Test) is used to choose between the common effect method or the fixed effect method. Second, the Hausman test which is used to choose between the fixed effect method or the random effect method. The three Lagrange Multiplier (LM) tests are used to choose between the common effect or random effect method.

#### a. Chow test

Chow test is done by looking at the probability (p-value), if the probability is smaller than the real level ( $\alpha$ ) then the fixed effect model is more appropriate. Conversely, if the probability value (p-value) is greater than the real level ( $\alpha$ ), the appropriate model is the common effect. The comparison is made with the following hypothesis:

Ho = If probability  $< \alpha = 0.05$  then the better model is Fixed Effect

Ha = If Probability  $> \alpha = 0.05$  then the better model is Common Effect

#### b. Hausman Test

The Hausman test is carried out by looking at the probability (p-value), if the probability is smaller than the real level ( $\alpha$ ) then the fixed effect model is more appropriate and vice versa if the probability value (p-value) is greater than the real level ( $\alpha$ ) then the



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model is appropriate. is a random effect. The comparison is made with the following hypothesis:

Ho = If probability  $< \alpha = 0.05$  then the better model is Fixed Effect

Ha = If Probability  $> \alpha = 0.05$  then the better model is Random Effect

### c. Lagrange Multiplier (LM) test

The estimated value of LM is compared with the value of Chi Squares on the degree of freedom of the number of independent variables with 1% and 5%. The hypothetical framework is as follows:

Ho = Using a random effect model if the p-value  $>$  real level ( $\alpha$ ).

Ha = Using a common effect model if the p-value  $<$  real level ( $\alpha$ ).

### Classic Assumption Test

#### 1. Linearity Test

If the value for Prob. F count is greater than the level  $\alpha$  0.05 (5%) then the regression model fulfills the linearity assumption and vice versa, if the value of Prob. F count is less than 0.05, so the model does not meet the linearity assumption. Prob Value. F count can be seen in the F-statistic row probability column.

#### 2. Normality Test

The normality test is intended to test whether the residual values that have been distributed in the regression model are normally distributed or not. To detect data normality, it can be done by looking at the Jarque-Bera coefficient and its probability.

- If the value of J-B is not significant (less than 2), then the data is normally distributed.
- If the probability is greater than the significant level or  $\alpha$ , then the data is normally distributed (the null hypothesis is that the data is normally distributed).

#### 3. Multicollinearity Test

Multicollinearity, according to Frisch, states that a regression model is said to be subject to multicollinearity if there is a perfect or exact linear relationship between some or all of the independent variables of a regression model. As a result, it will be difficult to see the effect of the explanatory variables on the variables described. The occurrence of multicollinearity is seen from the correlation between the independent variables, if the correlation coefficient is more than 0.80 then there is multicollinearity in the research method.

#### 4. Autocorrelation Test

The autocorrelation test aims to test whether in a linear regression model there is a correlation between the confounding error in period  $t$  and the error in period  $t-1$  (before). If there is a correlation then it is called an autocorrelation problem. A good regression model is a regression that is free from autocorrelation.

Autocorrelation symptoms were detected by performing the Durbin Watson (d) test. The results of Durbin Watson's calculation (d) are compared with the dtabel at  $\alpha = 0.05$ . Table d has two values, namely the upper limit value ( $du$ ) and the lower limit value ( $dL$ ) for various values of  $n$  and  $k$ .

#### 5. Heteroscedasticity Test

Heteroscedasticity is a condition where the variance of the residuals inequality occurs in the regression model. Good data is homoscedasticity data. Homoscedasticity occurs when the variants of the variables in the regression model have the same or constant value. If the variance from the residual of one observation to another is constant, it is called heteroscedasticity.



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The method used in the heteroskedastical test is the Breusch-Pagan method, provided that if the Chi-Square probability value is not statistically significant at the 5% degree, there is no heteroscedasticity in the model. Conversely, if the Chi-Square value is statistically significant at the 5% degree then there is a heteroscedasticity problem.

## Hypothesis test

### 1. Simultaneous Significance Test (Test Statistic F)

The F test is used to test whether statistically that the regression coefficient of the independent variables together has a significant effect by comparing the probability value (F-statistic) with the F table.

The basis for decision making according to Singgih (2000) is:

- If probability  $< \alpha = 0.05$  then  $H_0$  is rejected and accepts  $H_a =$  significant
- If probability  $> \alpha = 0.05$  then  $H_0$  is accepted and rejects  $H_a =$  insignificant

If  $F\text{-Statistics} > F\text{ table}$ , then  $H_0$  is rejected and  $H_a$  is accepted, it means that the independent variables have a significant effect on the dependent variable together, with the following hypothesis formulation:  $H_0: \beta_i = 0$ , the independent variables together have no effect on the dependent variable.  $H_a: \beta_i \neq 0$ , the independent variables jointly affect the dependent variable

### 2. Significance Test of Individual Parameters (t Statistical Test)

The t test is conducted to determine whether the independent variable individually affects the dependent variable. The t test is done by comparing the t statistical value with the t table. In this test, a two-tailed test was carried out with a confidence level of 95% or  $\alpha = 5\%$  with the hypothesis  $H_0: \beta_i = 0$  and  $H_a: \beta_i \neq 0$ .

- If probability  $< \alpha = 0.05$  then  $H_0$  is rejected and accepts  $H_a =$  significant
- If probability  $> \alpha = 0.05$  then  $H_0$  is accepted and rejects  $H_a =$  insignificant

## Coefficient of Determination ( $R^2$ )

The coefficient of determination ( $R^2$ ) in essence measures how far the model's ability to explain the variation in the dependent variable (dependent). The coefficient of determination is between zero and one. The small value of  $R^2$  means that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the dependent variables

## Operational Definition of Variables

### Income Inequality

Income inequality describes the difference in income received by each individual, where a large portion of the population receives a large portion of the population while most of the population earns a low income. The measure of inequality used in this study is the Gini Index on a scale of 0 (perfect equality) to 1 (perfect inequality) in percent per year.

### Tourism Sector

The tourism sector is a sector that is now capable of increasing economic growth. Activities seen from the tourism sector in this study are GRDP at constant prices according to business fields in the sector of providing accommodation and food and drink as a percentage. By increasing the good tourism sector every year, it is hoped that it can reduce the inequality of income distribution on the island of Sumatra



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## Foreign Investment / FI

Foreign investment is an investment activity carried out by the private sector and is shown to be profitable and driven by increased income, in this study it is expressed as a percentage from 2011 to 2018.

## Economic growth

Economic growth describes changes in the level of economic activity that apply from year to year. So to find out, a comparison of national income must be made from year to year or better known as the rate of economic growth (Sukirno, 2006). The data on Indonesia's economic growth in this study are expressed in percentages and from 2011 to 2018.

## 4. RESULTS AND DISCUSSIONS

### Panel Data Regression Analysis

Linear regression analysis of panel data in this study uses the Fixed Effects method. The selection of the Fixed Effects model as a panel data analysis method in this study was previously tested through the Chow Test and the Hausman Test first so that finally the Fixed Effects method is the most appropriate for testing research panel data.

**Table 1. Result Regression Analysis with Fixed Effects Method**

Dependent Variable: Y				
Method: Panel Least Squares				
Periods included: 8				
Cross-sections included: 10				
Total panel (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Gini	-0.092624	0.213645	-0.433541	0.6660
T	-0.138607	0.027927	-4.963120	0.0000
FI	0.013996	0.006781	2.063982	0.0429
GDP	-0.006346	0.011982	-0.529670	0.5981
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.790608	Mean dependent var	-1.074868	
Adjusted R-squared	0.753105	S.D. dependent var	0.078846	
S.E. of regression	0.039178	Akaike info criterion	-3.493759	
Sum squared resid	0.102837	Schwarz criterion	-3.106680	
Log likelihood	152.7504	Hannan-Quinn criter.	-3.338568	
F-statistic	21.08115	Durbin-Watson stat	1.744432	
Prob(F-statistic)	0.000000			

The research regression equation is as follows:

$$\text{Gini} = -0.093 - 0.139 T + 0.0139 \text{FI} - 0.006 \text{GDP} + e$$

- a. A constant of 0.093 means that if T (Tourism Sector), FI (Forect Investment), and GDP (Economic Growth) are 0, then the value of Gini (Gini Index) is 0.093.



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- b. The regression coefficient for the T variable (Tourism Sector) is -0.139 means that each increase of 1 percent will decrease Gini by 0.139 percent, assuming the independent variable has a fixed value
- c. The variable regression coefficient FI variable (Forect Investment) is 0.0139, which means that each increase of 1 percent increases Gini by 0.0139 percent, assuming the independent variable has a fixed value.
- d. The regression coefficient for the GDP variable (Economic Growth) is -0.006, which means that every 1 percent increase in economic growth will decrease Gini by 0.006 percent, assuming other independent variables remain.

### Significance Test of Individual Parameters (t Statistical Test)

The t table value can be seen in the t statistical table at  $df = n-k-1$  or  $80-3-1 = 76$  (k is the number of independent variables), with a significance of 0.05 and a 2-sided test, the result is t table = 1.99167 / -1.99167.

1. Tourism variable partially affects income inequality as measured by the Gini Index. This is because the -t value is less than -t table where the value is -4.963 more than -1.99167 or the probability is less than 0.05 where the probability value is 0.0000 less than 0.05 so that  $H_0$  is rejected. The effect is negative because the t-value is negative, meaning that if tourism increases, income inequality will decrease.
2. FI variable partially affects income inequality as measured by the Gini Index. This is because the t-value is more than the t-table where the t-count value is 2.064 more than 1.99167 or the probability is less than 0.05 where the probability value is 0.0429 less than 0.05 so that  $H_0$  is rejected. The effect is positive because the t-value is positive, meaning that if FDI increases, income inequality will also increase.
3. The variable of economic growth partially has no effect on income inequality as measured by the Gini Index. This is because the t-count value is less than the t-table where the t-count value is 0.529 less than 1.99167 or the probability is more than 0.05 where the probability value is 0.5981 more than 0.05 so that  $H_0$  is accepted.

### 1. The Influence of the Tourism Sector on Income Inequality

Based on the data as well as the analysis that has been done, it shows that the accommodation and food and beverage provision sector has a negative relationship and has a significant effect on income inequality. Where, if the tourism sector on the island of Sumatra increases, it will be able to reduce the level of inequality in income distribution. The increase in the tourism sector will increase the income of the surrounding community so that if the people's income increases and can be properly distributed, it will have a negative impact on the Gini index on the island of Sumatra.

The results of this study are in line with the research of Uzar et al., (2019), which states that tourism can reduce income inequality by expanding and spreading throughout the study community in Turkey. In addition, it is also strengthened by the research of Riyanto dkk , (2019) which states that the tourism sector has a role in reducing the level of income inequality in Indonesia.

### 2. The Influence of Foreign Investment on Income Inequality

Based on the regression results that have been carried out, it shows that foreign investment has a positive and significant relationship to income inequality. This is because the growth of FDI on the island of Sumatra is experiencing a volatile state. Where when FDI increases, the Gini index is at moderate inequality and does not even decrease.

This result is in line with the research of Suanes (2016) and Mihaylova (2015) and Putri et al., (2015) who state that there is a positive and significant relationship between FI and income



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inequality and research results from Prasetya et al., (2019) which explain that FI increases income inequality in both the short and long term

### 3. The Effect of Economic Growth on Income Inequality

Based on the data and analysis that has been done, it shows that economic growth shows a negative relationship and does not have a significant effect on income inequality. This means that economic growth does not affect income inequality

This is in line with research by Rosyadi (2014) and Susilo (2017) which explains that economic growth has no effect on income inequality. Furthermore, Rosyadi argued that when economic growth increased, all groups did not feel equitable development. Growth only reduces inequality in the early stages of development, for the next stage, increased growth does not coincide with equitable development. So that when economic growth increases it does not have any influence on inequality

## 5. CONCLUSION

From the results of empirical testing in this study, the following conclusions can be:

1. The tourism sector has a negative and significant effect on income inequality on Sumatra Island. This means that if the tourism sector has increased, it will be able to reduce inequality in income distribution on the island of Sumatra.
2. Foreign investment has a positive and significant effect on income inequality on the island of Sumatra. That is, if the level of foreign investment increases, the inequality in the distribution of income will also increase this is due to unequal investment between regions.
3. Economic growth has no effect on income inequality on the island of Sumatra. This means, when economic growth increases, equitable development is not felt by all circles. So that when economic growth increases it does not have any influence on inequality

## LIMITATION AND STUDY FORWARD

Based on the above conclusions, the researches tries to express several suggestions, including the following:

1. Income inequality on the island of Sumatra is still classified into the category of moderate inequality but still requires special attention by the government so that it is better able to reduce the inequality of income distribution on them island of Sumatra to moderate inequality through other sectors that can affect it.
2. This research is still very simple, so it needs further research on the tourism sector, foreign investment, and economic growth on the island of Sumatra, for example by adding variables of tourist expenditure, the number of tourists who come and domestic investment. In addition, it can also expand the research area, for example conducting research throughout Indonesia..

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## DEPOSIT INSURANCE, MARKET DISCIPLINE, AND BANK RISK; IMPLICATIONS FOR COMMERCIAL BANKS IN ASEAN-5

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### Abstract

**Purpose:** This study aims to evaluate the relationship between deposit insurance and market discipline on commercial bank risk in five ASEAN countries, including the interdependence relationship between market discipline and bank risk.

**Research Methodology:** We used 1,434 observational data on commercial banks in ASEAN countries (Indonesia, Malaysia, Philippines, Singapore, and Thailand). Furthermore, our data examines the relationship between deposit insurance, market discipline, and bank risk using unbalanced panel data. However, the possible endogeneity issue is the driving force for this study to use another estimation method, namely IV-two stage least square, to make the research findings robust.

**Results:** The results showed that there was no relationship between deposit insurance and bank risk. The research sample's homogeneity means that the relationship between DI and bank risk cannot be explored more deeply, let alone data on commercial banks in ASEAN, which are relatively subject to regulations imposed by local authorities. In the end, research shows that market discipline is a signal for an increased risk. External parties of the bank will get incentives when the bank is seen to take excessive risks.

**Limitations:** The homogeneous data means that this research has not comprehensively captured the effect of DI, market discipline, and bank risk. This research also does not interact between DI and market discipline. This step is critical to understand whether the existing policies are fit with the banking industry in each country.

**Contribution:** This article provides an empirical contribution to evaluating the effect of DI, market discipline, and bank risk. It also provides recommendations for authorities, especially banks in normal conditions (after the global financial crisis), especially with the initiation and creation of the ASEAN Banking Integration Framework (ABIF).

**Keywords:** *deposit insurance, bank risk, ASEAN, ABIF*

### 1. INTRODUCTION

The financial crisis provides a lesson for policymakers concerning the importance of security of customer deposits and public trust in banking institutions. Implementing various policies by regulators aims to mitigate various risks that may cause bank failure (systemic risk). One of the policies pursued is through a deposit insurance program (Kusairi, Sanusi, & Ismail, 2018). Deposit insurance (DI) is one of the essential components of net financial security. In addition to mitigating the risk of self-fulfilling or information-driven bank runs, through guarantees for customers to get part or all of the funds deposited when the bank fails to pay (Diamond & Dybvig, 1983).

Policymakers hope that this institution will increase stability, protect depositors, and increase public trust. Until now, this policy has been able to be widely accepted and adopted and has long been a recommendation for the International Monetary Fund's best practice for developing countries (Anginer, Demirguc-Kunt, Huizinga, & Ma, 2018)



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However, despite all the benefits, the policy is still a discussion among academics and regulators. The discussion's focus refers to the costs and benefits, especially on the empirical facts that have occurred in several countries, for example, the question of the existence of a deposit insurance institution that cannot withstand the negative impact of the financial crisis. Besides, the emergence of moral hazard is also a serious concern.

This argument refers to a debate related to high operational costs. As a result, bank managers will try to cover this up through riskier investments because they realize that customer deposits are guaranteed to exist (Barth, Caprio, & Levine, 2004), further explained that this moral hazard problem could reduce deposit insurance effectiveness and, worse, it can trigger a systemic banking crisis.

The presence of deposit insurance also limits banks' downside risk and reduces incentives for depositors to discipline their banks (Saheruddin, 2013), causing depositors to neglect their banks' health condition. As a result, it can encourage bank managers to take excessive risks because of the deposit insurance premiums (risk-shifting). Thus, it is a logical consequence to exercise control over the level of risk-taking through increased discipline both on shareholders, regulators, and depositors.

Berger (1991) defines market discipline in the banking sector as a situation where private sector agents face costs due to banks taking risky actions and taking action on a cost basis, such as excessive risk-taking. There is no guarantee of available savings. Of course, the depositor's reaction will punish the risky banks or even withdraw their deposits.

At least three literature explanations discuss the relationship between deposit insurance and risk. First, deposit insurance does not affect the risk of the banking industry. This opinion shows that this policy gives banks incentives to take risks to cover their operational costs. Second, the empirical literature shows that deposit insurance's presence makes the banking industry's risk smaller because it prevents bank runs and liquidity problems. Third, deposit insurance benefits depend on each country's financial development structure, such as regulations, ownership structures, credit, savings, and interest rates. Our paper contributes to the existing literature by analyzing the importance of market discipline during the aftermath of the global financial crisis, which is still limited to examining the post-crisis context and the ASEAN region.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Deposit Insurance and Bank Risk

The bank is an intermediary institution that connects parties with excess funds (surplus units) and parties who are under funds (deficit units). Law No. 10 (1998) defines a bank as a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and other forms to improve the standard of living the people at large.

Greenbaum, Thakor, and Boot (2015) stated that banks are intermediary where customers meet (surplus and deficit) or brokerage, and then allocate credit to obtain returns at a better time than the present (qualitative asset transformation). This transformation is certainly not a risk-free activity because transferring an asset with a relatively short maturity to an asset with a relatively long maturity requires banks to analyze it properly, carefully, and of course, by considering costs and benefits. This maturity mismatch is also a significant cause of bank liquidity risk and a serious problem, especially during the financial crisis.

Referring to Diamond and Dybvig (1983), the issue of maturity mismatch can impact bank runs because depositors are afraid of losing the number of their deposits as the first-come-first-served assumption. If all depositors rush to the bank and withdraw their funds, while most of the bank's assets are due in the long term, then the bank will most likely have to liquidate their long-term assets to meet unexpected large liquidity needs and end up failing if they cannot keep up with demand. On the flip side, if the depositors have confidence in the bank, there will be no panic, only those who



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need money will withdraw funds, and the bank will quickly fulfil the demands, then the deposit insurance will arise in this context.

Another basic argument states that the existence of a deposit insurance policy is to share risk between the bank and the insurance provider while ensuring the safety of depositors' funds, reducing risk when a financial crisis occurs, and supporting the banking industry's health. Deposit insurance is a complementary element in the government's financial safety net to maintain a stable banking system and protect small investors in a bank failure event. Deposit insurance can exist as explicit deposit insurance, a formal scheme enforced by law, or an implied deposit insurance system in the absence of such a formal scheme (Demirgüç-Kunt & Detragiache, 2011)

Deposit insurance has been practised in all countries, divided into two categories, namely implicit and explicit guarantees. Implicit guarantees are carried out without going through an outstanding institution but are handled by existing institutions such as the Central Bank or the Ministry of Finance when a bank fails. Meanwhile, the guarantee is explicitly carried out by a unique institution established by the government to implement a deposit guarantee program whether there is a failed bank or no failed bank. The deposit insurance performs its function concerning the resolution of failed banks and supervising the guarantee participant bank.

Saheruddin (2013) states that some literature in deposit insurance shows that explicit deposit insurance causes bank instability due to more serious moral hazard problems. Research by Demirgüç-Kunt and Detragiache (2002) found that explicit deposit insurance tends to hurt bank stability, increasing the likelihood of a banking crisis, significantly when bank interest rates are deregulated, and the institutional environment is weak. However, Cull, Senbet, and Sorge (2005) found that deposit insurance benefits for banking system stability depend on regulations' strength. Using cross-border data, it is found that deposit insurance has a negative relationship with financial development and growth, except in countries with strong financial institutions and regulations. Of course, these results imply that deposit insurance application does not directly increase depositors' confidence but indirectly increases total consumer savings, depending on the country's regulations and financial institutions.

### **H1. Deposit insurance has a negative impact on bank risk**

#### **Market Discipline and Bank Risk**

We refer to Berger's (1991) view, which states that market discipline is a process in which shareholders, depositors, or creditors face increased costs because banks have the incentive to take risks. Goldberg and Hudgins (2002) further argue that any decrease in the level of uninsured liabilities following the increase in bank risk will support market discipline. The theory suggests that when there is increased risk, the resulting market discipline tends to have a more significant cost impact. Even then, Gropp and Vesala (2004) found that banks with a proportion of uninsured funding have a smaller incentive to take risks. Likewise, Nier and Baumann (2006) provide evidence of uninsured funds' effectiveness as a market discipline measure. The use of market discipline for precautionary purposes has also become particularly important in recent years as policymakers, increasingly accustomed to its potentially lucrative roles, have incorporated it into their regulatory frameworks. We follow Nier and Baumann (2006) research and consider uninsured liabilities, including interbank deposits and subordinated debt, as market discipline measures. Based on the above discussion, we empirically examine the relationship between market discipline and risk. Then we evaluate whether there is an interdependent relationship between bank risk and market discipline.

### **H2. Market discipline has a negative impact on bank risk.**



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## 3. RESEARCH METHODOLOGY

### Data and Variables

This study uses 1,434 commercial banks' observations in five ASEAN countries (Indonesia, Malaysia, Singapore, Philippines, and Thailand) for the 2011-2019 period (regular period). Data related to financial reports are obtained directly from each bank or using BankFocus BvD ID and Thomson Reuters Eikon, Faculty of Economics, Sriwijaya University. Data on inflation and GDP growth are obtained from the World Bank, while data related to the capital requirements index and governance index refer to bank regulation and supply data.

Furthermore, the data is filtered (filtration) to reach the final sample. Referring to the practical steps of Fu, Lin, and Molyneux (2014), the determination of the sample was carried out with the following criteria: (i) commercial banks that have complete reports on consolidated loans, balance sheets and profit and loss; (ii) reports on total assets, total liabilities and net income are available for five consecutive years. After the final sample was obtained, the extreme values were winsorized at the 1st and 99th percentiles. The variables and operational definitions are described in table 1 below.

**Tabel 1. Research variable**

Variables	Definition	Sources of data
<b>Dependent variables</b>		
LnZ	A more considerable Ln Z-Score value indicates that the probability of risk of insolvency is lower.	Researcher's calculations
<b>Independent variables</b>		
marketdis	Total interest expenses/ total customer deposits. A high score indicates a lower market discipline.	BankFocus, Thomson Reuters Datastream
cr	Loan loss provision/ total liabilities	BankFocus, Thomson Reuters Datastream
di	Whether the deposit insurance authority has the authority to decide to intervene in a bank, take legal action against bank directors or officials, and has ever taken any legal action against bank directors or officers.	Bank Regulation and Supervision, World Bank
<b>Control variables</b>		
size	The natural logarithm of total assets is the level of bank size (Lee, Hsieh, & Yang, 2014)	BankFocus, Thomson Reuters Datastream
nim	Net Interest Margin $NIM = \frac{\text{Net Interest Revenue}}{\text{Average Earnings Assets}}$	BankFocus, Thomson Reuters Datastream
inf	The annual inflation rate based on the consumer price index.	BankFocus, Thomson Reuters Datastream
gdp	The annual real GDP growth rate	Worldbank's Development indicator database
<b>Instrumental variables</b>		
govi	This index is used to determine whether good external governance. Higher values indicate better corporate governance	Bank Regulation and Supervision, World Bank
cap	This index is used to determine whether the capital requirement reflects certain risk elements and deducts certain market value losses from the capital before minimum capital adequacy is determined.	Bank Regulation and Supervision, World Bank



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### Analysis techniques and research models

This study uses regression analysis to examine the relationship between the independent variable and the dependent variable. Several regression models that will be used for testing include ordinary least squares (OLS) and IV 2SLS to overcome the endogeneity issue based on several previous studies ((Anginer, Demirguc-Kunt, & Zhu, 2014). The use of some of these methods is apart from robustness testing related to the consistency of results.

$$Risk_{ijt} = \alpha_0 + \alpha_1 DI_{jt} + \alpha_2 Marketdis_{ijt} + \alpha_3 Control + \epsilon$$

Where,  $Risk_{ijt}$  denotes risk at bank  $i$ , country  $j$ , dan time  $t$ .  $DI_{jt}$  denotes deposit insurance at country  $j$ , and time  $t$ .  $Marketdis_{ijt}$  denotes the measure of market discipline at bank  $i$ , country  $j$ , and time  $t$ .

### 4. RESULTS AND DISCUSSIONS

We present the descriptive statistics, including the number of observations, mean, standard deviation, minimum, and minimum values from each of the variables in Table 2. This step follows prior studies that provided the descriptive statistic to give the detail of data variation for each of the variables (Fu, Lin, & Molyneux, 2014; Meslier, Risfandy, & Tarazi, 2017). The results depict that the mean value of LnZ (proxies of bank risk) is 1.92. A high LnZ (natural logarithm of z-score) value indicates a low level of risk (Lepetit, Nys, Rous, & Tarazi, 2008).

Furthermore, cr (credit risk), which shows the estimated potential losses that a company may experience due to credit risk to total liabilities, has an average value of 0.01. It is in line with the relatively high LnZ levels. The deposit insurance proxy has an average value of 2.54 with a minimum value of 0 and a maximum of 3. This value illustrates whether the deposit insurance authority has the authority to make decisions to intervene in banks, take legal action against bank directors or officers, and has taken legal action against the director or bank officer with a score of 0-4. So based on the relative average, it shows that the regulator has the authority to intervene in troubled banks. The details are presented below:

**Table 2. Descriptive statistics**

Variable	Obs	Mean	Std.Dev.	Min	Max
LnZ	654	1.92	1.07	-2.98	4.52
rc	1084	.01	.01	-.04	.26
di	1251	2.54	.87	0	3
marketdis	1086	.05	.2	0	4.04
size	1106	15.29	1.97	9.83	19.88
nim	1106	4.04	2.26	-.51	22.62
govi	1227	16.15	1.23	14	18
cap	1251	7.3	2.55	4	10
inf	1035	3.64	1.8	-.53	6.41
gdp	1035	5.36	.88	.73	7.15

We tested the relationship between deposit insurance, market discipline and commercial bank risk in ASEAN as described previously. Column (1) we use the Ln Z-Score as a proxy for risk using the OLS method, the same thing in column (2). Although we use a proxy for risk, it is loan loss provisions to total liabilities.

However, there is an issue of endogeneity between market discipline and risk variables, so we then consider using instrumental variables to overcome any bias that may arise. We are using the governance index (govi) and capital tightness (cap) instrument variables. The results show that market discipline shows that bank risk has increased, both using the LnZ proxy and credit risk. The market



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discipline mechanism appears when banks experience problems with risk so that this effect is expected to become a control for banks to be able to mitigate their risks and ultimately create bank stability in general.

**Table 3. Regression Analysis**

VARIABLES	(1) Ln Z-Score	(2) risk credit	(3) IV-Ln Z-Score	(4) IV-risk credit
marketdis	-0.0682 (0.2803)	0.0355*** (0.0021)	-3.3398*** (1.2806)	0.0461** (0.0186)
di	0.0659 (0.1289)	0.0051*** (0.0014)	-0.0958 (0.1361)	0.0037*** (0.0013)
size	0.2917*** (0.0431)	0.0005 (0.0004)	0.2591*** (0.0344)	0.0005 (0.0004)
nim	0.0504 (0.0308)	0.0020*** (0.0003)	0.0212 (0.0277)	0.0021*** (0.0002)
govi	-0.1045* (0.0557)	0.0001 (0.0006)		
cap	0.0293 (0.0184)	0.0004* (0.0002)		
inf	-0.0099 (0.0257)	-0.0009*** (0.0003)	-0.0293 (0.0341)	-0.0005** (0.0003)
gdp	0.0128 (0.0625)	-0.0016*** (0.0006)	-0.0013 (0.0658)	-0.0018*** (0.0006)
Constant	-1.6390 (1.3215)	-0.0206 (0.0134)	-1.6567** (0.8281)	-0.0120 (0.0103)
Observations	514	873	514	873
Number of id	107	112	107	112

Nevertheless, unfortunately, in this study, deposit insurance does not have a significant effect on the Ln Z-Score column (1) or column (3). It is just that when using a credit risk proxy, there is a significant negative relationship. However, the relationship between deposit insurance and bank risk cannot be drawn from a conclusion: (1) if using OLS there is a biased relationship, (2) when we consider using IV 2SLS some basic assumptions are not met (see appendix).

Furthermore, these findings confirm that market discipline is a mechanism that emerges when banks experience high risk, meaning that H2 is supported. Strong market discipline is a signal for high bank risk. The theory implies that the strength of market discipline must be linked to the extent of the government's safety net, the rigour of bank risk choices and the proportion of uninsured liabilities on bank balance sheets. (Forssbäck, 2011; Hoang, Faff, & Haq, 2013; Nier & Baumann, 2006).

### 5. CONCLUSION AND LIMITATION

This study supports several previous findings that evaluate the effect of deposit insurance and market discipline in reducing bank risk. Our results only confirm the negative findings between market discipline and bank risk. The homogeneity of banks in the ASEAN region (relatively the same institutional environment) shows that deposit insurance does not have a significant effect (this can be seen from the data structure). Of course, this finding implies that market discipline remains a determining factor in the creation of bank stability. The supervision carried out by regulators must consider the aspect of public supervision so that banks need to be encouraged to be transparent in their disclosures. In the end, this study still has a gap, such as the relatively small sample data, future research needs to consider broader cross-country data by considering the institutional environment / regulatory quality to bank risk. Various risk proxies need to be expanded to obtain a robust picture.

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## Appendix 1.

### Post-test IV Regression (Market discipline and bank risk using Ln Z-Score)

Tests of endogeneity

Ho: variables are exogenous

Durbin (score)  $\chi^2(1)$  = 8.62177 (p = 0.0033)  
 Wu-Hausman  $F(1,506)$  = 8.63237 (p = 0.0035)

First-stage regression summary statistics

Variable	R-sq.	Adjusted R-sq.	Partial R-sq.	F(2,506)	Prob > F
marketdis	0.0754	0.0626	0.0370	9.72557	0.0001

Minimum eigenvalue statistic = 9.72557

Critical Values # of endogenous regressors: 1  
 Ho: Instruments are weak # of excluded instruments: 2

2SLS relative bias	5%	10%	20%	30%
	(not available)			
2SLS Size of nominal 5% Wald test	19.93	11.59	8.75	7.25
LIML Size of nominal 5% Wald test	8.68	5.33	4.42	3.92

Tests of overidentifying restrictions:

Sargan (score)  $\chi^2(1)$  = 2.25454 (p = 0.1332)  
 Basman  $\chi^2(1)$  = 2.22923 (p = 0.1354)

## Appendix 2.

### Post-test IV Regression (Market discipline and bank risk using credit risk)

Tests of endogeneity

Ho: variables are exogenous

Durbin (score)  $\chi^2(1)$  = 1.16403 (p = 0.2806)  
 Wu-Hausman  $F(1,865)$  = 1.15491 (p = 0.2828)

First-stage regression summary statistics

Variable	R-sq.	Adjusted R-sq.	Partial R-sq.	F(2,865)	Prob > F
marketdis	0.0406	0.0329	0.0124	5.44011	0.0045

Minimum eigenvalue statistic = 5.44011

Critical Values # of endogenous regressors: 1  
 Ho: Instruments are weak # of excluded instruments: 2

2SLS relative bias	5%	10%	20%	30%
	(not available)			
2SLS Size of nominal 5% Wald test	19.93	11.59	8.75	7.25
LIML Size of nominal 5% Wald test	8.68	5.33	4.42	3.92

Tests of overidentifying restrictions:

Sargan (score)  $\chi^2(1)$  = 6.66611 (p = 0.0098)  
 Basman  $\chi^2(1)$  = 6.65585 (p = 0.0099)



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## THE EFFECT OF MEDIA ENGAGEMENT TOWARD ADVERTISING ACCEPTANCE

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### Abstract

**Purpose:** This study aims to examine the relationship between social media engagement and advertising acceptance through the internet.

**Research Methodology:** This study uses a survey method to collect perceptions from respondents. The analysis used was regression analysis techniques, using SPSS version 22 software.

**Results:** The results showed that media engagement has an effect on advertising acceptance.

**Limitations:** This research is only limited to customers of a bank who are also active users of social media. This study does not discuss the acceptance of advertisements from customers who are not active on social media.

**Contribution:** This research contributes to the field of marketing promotion, especially in the field of advertising. One of the advertisement objectives is accepted by the audience. This is the first step to gain consumer engagement. This research contributes to the field of marketing promotion, namely advertising. One of the main goals of an advertisement is to be accepted by the audience. Acceptance of advertisements is the first step before respondents take action through the media.

**Keywords:** *media engagement, advertising acceptance, social media*

### 1. INTRODUCTION

Consumer engagement is defined as an initiative from a company to facilitate interaction with its consumers to get emotional and psychological bonds between consumers and producers (Meire et al., 2019). This bond is very important because it can affect behavior such as: surfing the internet (browsing), interacting, sharing information, and looking for information that can empower them about the products offered (Chahal & Rani, 2017). When the use of social media becomes a part of people's daily lives, it can become a way to reach consumers and approach them.

According to data from Wearesocial (2019), mobile social media users have reached 130 million people or about 48% of the total population or an increase of 20% from the previous year. The growth of this number can be a major consideration for companies to focus on reaching and binding consumers through information technology, especially social media. The use of social media is a way for companies to develop ways of interacting with their consumers, this is also to complement the limitations of offline interactions (face to face interaction). With the use of social media, companies can enrich ways of interaction that cannot be done offline, such as interactive messages, and sharing audio-video materials. Social media with its characteristics can help companies build closeness with their consumers. Consumers are not only seen as "objects" that consume the products they produce.

When compared to the Goods-Dominant Logic (GD-L) era, there is a view that to satisfy consumers, the value must be created, and this value must be generated in the most efficient manner possible. In this view, the relationship that occurs is one-way, from producers to consumers. Value is created from within the organization and does not seek to engage consumers. Shifting occurs when not all of these values are what consumers want, where consumers expect to get something they want. A shift in view also occurs from Goods-Dominant Logic to Service-Dominant Logic (SD-L) where there are differences in how the value is created and related to consumer engagement (Lusch & Vargo, 2014;



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Vargo & Lusch, 2011). In SD-L's view, it focuses on consumer involvement in creating value, then the concept of involvement is known as co-creation (Brodie et al., 2013).

Consumer Engagement has been defined as a user-initiated action, which leads to the co-creation of value. Meanwhile, Hollebeek (2011) views engagement as a multidimensional concept consisting not only of behavior (action) but also cognitive (thought) and emotional (feeling) aspects. With regard to social media, engagement can be seen as an individual interaction with the media. There is a study that views engagement as an element consisting of aspects of click-based behavior or interaction (participation) as well as display and reading of simple content (Khan, 2017). The company strives for a strong bond between consumers and producers on social media so that it becomes a strong foundation for consumer perception of the brand.

Social media is designed to encourage social interaction in a virtual environment. In general, communication is facilitated through information posted on user profiles, where both parties can share information and interact with each other. Members can view each other's profiles and can communicate via various applications similar to an email or online message boards (Pempek et al., 2009). On the other hand, consumer motivation in using social media varies, in general, it is divided into two, namely: User Psychological Well-Being and Need for social capital. In User psychological well-being, there are two motives, namely self-esteem and life satisfaction. Meanwhile, the need for social capital includes bridging, bonding, and maintenance in relation to other parties (Chi, 2011).

One of the main goals of companies using social media is to deliver advertisements which are their commercial activities. Social media allows the delivery of ads precisely aimed at specific targeted potential consumers. The main concern of advertisers is how the viewers receive from the ad. The closeness that exists from the bonding process through social media will help the acceptance of the advertisement. The reactions of individuals certainly vary at various levels, starting from cognitive, affective, and conative. This study tries to examine how the influence of consumer attachment to advertising activities.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Digital Engagement

Consumer engagement is digitally conceptualized into four levels: neutral consumption; positive screening; cognitive and affective processing and advocacy. Various approaches are used to measure this, such as the Facebook metric (clicks, likes, comments, and shares). Rishika et al. (2012) found that customer engagement through social media can have a positive impact on customer visits. Brettel et al. (2015) found the positive impact of Facebook metrics, such as likes and contributions, on company sales. Xie and Lee (2015) argue that while SNA efforts are not sales oriented, they increase the likelihood of buying and grow the consumer base. Kumar et al. (2016) support that corporate Facebook posts increase transactions and have relevant synergies with other advertising channels.

To explain the importance of the role of social media in the customer engagement process, Peters et al. (2013) describe three aspects of content on social media: (1) content quality including characteristics (eg, clarity), domain (eg, education, entertainment), and narrative; (2) content valence, including emotion and tone of voice; and (3) content volume. They also analyzed how the format (image, video, link, and length) of a post affects its effectiveness. Similarly, de Vries, Gensler, and Leeflang (2012) studied how the clarity and interactivity of posts influenced their popularity. The authors also saw informative and entertaining content. Only a few studies have studied the impact of brand posts on user engagement, especially on likes, comments, and shares (Lamberton & Stephen, 2016)(Lamberton and Stephen 2016).

Verma (2014) has reviewed the conceptualization of engagement in the marketing literature which suggests that the multidimensionality of engagement is one of several common denominators identified in the study. One exemplary definition of consumer engagement is when consumers are



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encouraged to interact with a brand to strengthen their emotional, psychological, or physical investment with the brand. In addition to the engagement context, Hollebeek (2011) describes three aspects of customer-brand engagement: dimension, level, and phase. In this section, we build on these aspects of engagement to conceptualize DCE and propose a four-tier DCE model. In the next section, we discuss the dimensions of engagement in more detail to learn about their connection to the ad processing model.

### MSN Engagement and Advertising Acceptance

Social media has been adopted as an effective media advertising channel by marketing professionals. However, existing studies on social media advertising mainly focus on PC-based SNS. In general, advertisements on MSN refer to advertising messages that users are exposed to when interacting with their social networks on mobile devices. Examples of MSN advertisements include sponsored posts on the Facebook app, promoted tweets on the Twitter app, and promoted pins on the Pinterest app (Wu, 2016). The importance of advertising acceptance in mobile marketing has been confirmed by many research (Wu, 2016). Using personal device as a routine, makes people perceive mobile advertising as highly personal, they tend to reject unsolicited advertising messages, leading to low levels of mobile ad acceptance.

Media engagement comes from experiencing media content (Malthouse et al., 2007). This experiences can be categorized into two groups: utilitarian experiences and intrinsically enjoyable experiences. The former indicates information acquisition or task accomplishment, and the latter indicates entertainment or escapism (Calder et al., 2009). Previous research has long confirmed that media engagement facilitates advertising effectiveness. Kilger and Rommer (2007) investigated the relationship between consumer engagement with three types of media (television, magazine, Internet) and their response to advertisements on these media platforms. The results show that, regardless of media type, there is a positive relationship between media engagement and advertising effectiveness, with consumers who are more engaged suggest a greater likelihood of buying the product in the advertisement.

### 3. RESEARCH METHODOLOGY

Using the six layers of research onion introduced by Saunders and Tosey (2013), we build philosophical stances on positivism, where researchers seek explanations and predict what happens in the social world. The approach used is deductive, where the research explanation will start from the general to the specific. The strategy used is a survey's research, where the researcher will design a systematic set of questions to answer the research problem. The choice of method used is the mono method, which only uses quantitative techniques. For the time horizon, this study uses a cross-sectional. Techniques and data collection adapted to the research design, such as hypothesis testing and regression analysis.

The population is all objects that have the same characteristics under study, and the sample is part of the research population taken to generalize. Our population is social media users who are exposed to certain company engagement activities. In this study, the object of research is bank customers in Indonesia who use online banking services. By considering the adequacy of statistical calculations, the number of samples taken is 100 samples. This number has calculated the number of constructs that are less than five (Hair et al., 2014, p. 574). The study constructs consist of two variables, namely: social media engagement and acceptance of advertisements. Each construct is measured through research items. In detail, the measurements for each of these constructs are shown in Table 1

**Table 1: Construct and measurement items**

Construct	Measurement item	Source
Media engagement	MSN apps often gives me something to talk about (ME01)	(Wu, 2016)
	I use things from MSN apps in discussion or arguments with	(Wu, 2016)



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(ME)	people I know. Using MSN apps is part of my routine (ME02)	
	I always check MSN apps anytime I am using my smartphones or tablets (ME03)	(Wu, 2016)
	MSN apps often gives me something to talk about (ME04)	(Wu, 2016)
Advertising acceptance (AA)	I would read advertising messages I receive in MSN apps in the future (AA01)	(Bauer et al., 2005; Wu, 2016)
	My general intention to accept advertising in MSN apps is very high (AA02)	(Bauer et al., 2005; Wu, 2016)
	I will think about accepting advertisements in MSN apps (AA03)	(Bauer et al., 2005; Wu, 2016)
	I will accept advertisements in MSN apps in the future (AA04)	(Bauer et al., 2005; Wu, 2016)

Note: Item measurement using six point Likert scale

This study uses a questionnaire as an instrument to collect data. The questions are arranged according to the main variables and answer the research questions. The measurement scale used is a 6-point Likert. We use a screening process to legitimate the selection of research participants. Research subjects are respondents who meet the research qualifications. Respondents in this study were banking customers and active users of social media. Regarding the sampling design using convenience sampling, respondents are subjects that can be found in public spaces such as shopping centers, campuses, cafeterias, and bus stops. The enumerator will lead the participant to fill the questionnaire.

#### 4. RESULTS AND DISCUSSIONS

##### Result

The analysis process begins with a frequency analysis of customer profiles and behavior. A recapitulation table was provided to post the result. The next process is to test the validity and reliability. This test begins with factor analysis to obtain factor loadings. The approach used is Confirmatory Factor Analysis (CFA). The number of factors used is two, namely a number of the main variables contained in the study. The loading factor value obtained from the results of the analysis is used to obtain the average variance extractor (AVE) and composite reliability (CR) value. This indicator is used to test whether these items come from the same construct. Next is to conduct a regression analysis on these two main variables, namely media engagement (ME) and advertising acceptance (AA).

Regression model calculations using SPSS ver. 22. The output of the analysis is a model summary table, ANOVA, and coefficient.

**Table 2: Profiles**

Measure	Value	%
Gender	Male	25
	Female	75
Age	< 20 y.o.	8
	20 - 25 y.o.	54
	26 - 35 y.o.	30
	36-45 y.o.	4
	46-55 y.o.	4

Note: n=100

Based on table 2 (consumer profiles), most of the participants were female (75 percent), and were at an average age of 20-25 years, which was 54%. A large number of female users and from the age range of 20-25 years shows that women use social media more as a means of communicating with other people.



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Table 3 (consumer behavior) shows that most respondents are users of BNI Syariah banking services with a percentage of 43 percent. On average, I have been a customer for 1-3 years. The most widely used service is internet banking at 49 percent. The duration of following the company's social media is dominated by 1-2 years (38 percent). And most of the respondents stated that following the company's social media is a must.

**Table 3: Consumer behavior**

Measure	Value	%
Bank	Mandiri	8
	BRI	8
	BNI	33
	BNI Syariah	43
	BCA	4
	others	4
How long you as a bank's consumer	< 1 year	8
	1-3 years	54
	4-6 years	13
	More than 6 years	25
Internet banking	Yes	49
	No	51
SMS banking	Yes	45
	No	55
Mobile banking	Yes	20
	No	80
How long (in years) you followed their social media	< 1 year	12
	1-2 years	38
	More than 2 years	26
	Not followed at all	24
Do you think, following the company's social media is a must?	Yes, I have to	38
	Yes, I should to	38
	No, I don't have to	24

Note: n = 100

Table 4 shows the research constructs and loading factors for each item. In the measurement item, it is shown in detail the questions used in the questionnaire. The question then becomes the measuring item of each construct. The results show that all research items have loading values above 0.6. This value indicates that the item comes from the same construct.

**Table 4: Details and loadings of the measurement**

Construct	Measurement item	Loading
Media engagement (ME)	MSN apps often gives me something to talk about (ME01)	0.817
	I use things from MSN apps in discussion or arguments with people I know. Using MSN apps is part of my routine (ME02)	0.875
	I always check MSN apps anytime I am using my smartphones or tablets (ME03)	0.881
	MSN apps often gives me something to talk about (ME04)	0.803
Advertising acceptance (AA)	I would read advertising messages I receive in MSN apps in the future (AA01)	0.721
	My general intention to accept advertising in MSN apps is very high (AA02)	0.873
	I will think about accepting advertisements in MSN apps (AA03)	0.657
	I will accept advertisements in MSN apps in the future (AA04)	0.934



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Note: Measurement procedures using six point Likert scale, N = 100.

**Table 5: Factor loadings, AVE and Composite Reliability**

Construct	Item	Mean	Std. Dev.	$\lambda$	$\lambda^2$	$\epsilon$	AVE	CR
Media engagement (ME)	ME01	4.88	0.868	0.817	0.667	0.333	0.714	0.909
	ME02	4.72	0.726	0.875	0.766	0.234		
	ME03	4.84	1.126	0.881	0.776	0.224		
	ME04	4.52	1.210	0.803	0.645	0.355		
				<b>3.376</b>	<b>2.854</b>	<b>1.146</b>		
Advertising acceptance (AA)	AA01	4.08	0.939	0.721	0.520	0.480	0.646	0.878
	AA02	3.80	0.943	0.873	0.762	0.238		
	AA03	4.04	0.828	0.657	0.432	0.568		
	AA04	4.04	0.777	0.934	0.872	0.128		
				<b>3.185</b>	<b>2.586</b>	<b>1.414</b>		

Note:  $\lambda$  = Loading factor,  $\epsilon$  = error term ( $1 - \lambda^2$ ), AVE = Average Variance Extractor (sum of  $\lambda^2/N$ ), CR = Composite Reliability (Sum of  $\lambda / (\text{sum of } \lambda + \text{sum of } \epsilon)$ ).

Table 5 (Factor loadings, AVE, and composite reliability) shows the calculations to get the AVE value and composite reliability. This consideration is to ensure that items are based on the same construct, and do not contain different constructs. The first step is getting the mean and standard deviation value. This value describes the average respondent's answers and the deviation from the mean value. Furthermore, the factor analysis was carried out using the confirmatory factor analysis (CFA) method to obtain the loading factor value ( $\lambda$ ). To get the average variance extractor (AVE) value, it takes an average of the loading factor squared value ( $\lambda^2$ ). The AVE value for the ME construct was 0.714 and 0.646 for the AA construct. Meanwhile, to get the value of composite reliability, it takes the error term ( $\epsilon$ ) value obtained from the calculation of  $1 - \lambda^2$ . Composite reliability (CR) is obtained from the Sum of  $\lambda / (\text{sum of } \lambda + \text{sum of } \epsilon)$ . The CR value in the construct of media engagement (ME) is 0.909, and the CR value for the advertising acceptance (AA) variable is 0.878. Composite reliability shows that research constructs are reliable.

**Table 6: Model summary and ANOVA**

Model summary	ANOVA		
r	0.439	F	23.404
r <sup>2</sup>	0.193	Sig.	0.000

Note: Dependent Variable: Advertising acceptance (AA),  
Predictors: (Constant), Media engagement (X)

**Table 7: Coefficient**

Model	B	Std. error	t	sig
(Constant)	2.240	.368	6.094	.000
Media engagement (X)	.369	.076	4.838	.000

Note: Dependent Variable: Advertising acceptance (AA),  
Predictors: (Constant), Media engagement (X)

Tables 6 and 7 show the results of the regression analysis. In table 6, the correlation value between the ME variable and the AA variable is 0.439. Based on the correlation value, the r<sup>2</sup> value is 0.193. This value means the ratio between the variance of Y estimated and variance of Y. This value showed how much the X variable (media engagement) to explain the advertising acceptance (Y) variable. The r<sup>2</sup>



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value is 0.193, that means the amount of variance X can explain the variance of Y. In the ANOVA table, it can be seen that the significance value of F is 0.000 (F count = 23.404). The value means that the model obtained from sample testing is representative of the population. Furthermore, the significance value of the t-test is 0.000. This value showed that the X variable (media engagement) has a significant effect on advertising acceptance. The regression coefficient for variable X is 0.369.

### 5. CONCLUSION

Engagement in product involvement is important for marketing when it comes to advertising acceptance. One should get information and experience before and when consuming it. The test results show that media engagement influences advertising acceptance. This result can make business people aware of the importance of the engagement process. When one day a producer advertises with various purposes such as receiving an advertisement. In general, advertisements on MSN refer to advertising messages that users are exposed to when interacting with their social networks on mobile devices. Using personal device as a routine, makes people perceive mobile advertising as highly personal, they tend to reject unsolicited advertising messages, leading to low levels of mobile ad acceptance.

### LIMITATION AND STUDY FORWARD

We realize that this research has many limitations. First, our focus is only on customers of a bank who are also active users of social media. This study does not discuss the acceptance of advertisements from customers who are not active on social media. Second, other research found that advertising acceptance it is not only caused by kind of engagement but also endorser type (Muralidharan & Xue, 2015) and other social network stimuli (Brettel et al., 2015). Further research should notice to consider exploring the other variable previously.

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## DETERMINANTS OF VILLAGE FUND MANAGEMENT ACCOUNTABILITY

### (Study on Villages in Sragen Regency)

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#### Abstract

**Purpose:** This explanatory research aims to determine the effect of competence of village officials, utilization of IT, Government Internal Control Systems (SPIP), and community participation on village funds management accountability in Sragen Regency which focuses on planning, implementation, administration, reporting, and accountability as an indicator.

**Research Methodology:** Questionnaire is used to collect the data. The sample 113 respondents with predetermined criteria, consisting of the village head, secretary, treasurer, implementation team, and BPD Supervision in the 20 districts that received the 2018 largest village fund. Data processing using E-views software and multiple regression analysis techniques.

**Results:** The results of this study indicate that the competency of village officials, utilization of IT, SPIP, and community participation have influence on the accountability of village funds. According to the stewardship theory which emphasizes the quality of human resources as an important factor in achieving organizational goals, the competence of village officials has the greatest influence on the accountability of village funds, this result show that the success of implementing IT (*Siskeudes*) and SPIP depends on the ability of village officials.

**Limitations:** This study only uses a sample that is fixed in one area so that the results of the study cannot be generalized as a whole to the same subject

**Contribution:** The practical implication of this study is to improve the accounting skill of government officials to optimize the use of IT.

**Keywords:** *Village Fund Accountability, Village Apparatus Competence, Utilization Information Technology, Government Internal Control System (SPIP), Community Participation*

## 1. INTRODUCTION

With the passing of Law Number 6 of 2014 concerning Villages, villages are given the authority or great opportunity to take care of their own governance and implementation of development to improve the welfare and quality of life of rural communities. In addition, the village government is expected to be more independent in managing the government and its various natural resources, including the management of village finances and village property. Village Funds are funds sourced from the state revenue and expenditure budget allocated to villages that are transferred through the district / city regional income and expenditure budget and are used to finance government administration, implementation of development, community development, and community development. With the authority that the village has to manage village funds that are used to finance government administration, implementation development, community development, and community empowerment requires a mechanism as a guideline for exercising this authority.

The mechanism for channeling and reporting the use of village funds provides an overview of the importance of guidelines in the context of implementing the distribution and reporting of village funds for village governments, with the aim that the village government can apply the principles of orderliness, transparency, accountability, and quality, where all ends activities administration government village should could accounted for in accordance with the applicable provisions. Accountability is one of the principles of governance which has an important meaning to increase



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public trust in a series of activities or programs designed and carried out by the government for the benefit of society. Accountability has a fairly broad definition including accountability, presentation, reporting, and disclosure of all agent activities to principals (Mardiasmo, 2009). Included in this definition, accountability has an important role to play in reducing irregularities and misuse of resources for the public interest. Accountability to be a broader concept of stewardship, because stewardship refers to top management an activity economically and efficiently without being burdened with the obligation to report, meanwhile accountability refers to accountability by steward to the giver of responsibility (Mardiasmo, 2009). Quoted from *joglosemarnews.com*, the village fund allocation budget (ADD) for 196 villages in Sragen Regency in 2019 has increased quite significantly. Compared to 2018, the ADD budget for 2018 towards 2019 has increased by nearly Rp. 12 billion. It is recorded that in 2018 the ADD budget was Rp. 104 billion, while in 2019 it increased to Rp. 116 billion. The increase in funds was also offset by the quality of village fund management reporting. Based on the results of interviews with village officials in Ngrampal and Tangen sub-districts, it was found that the quality of accountability for village funds in most villages during the 2017 and 2018 periods was relatively good and no material internal audit findings were produced. This is in accordance with the Sragen Perbup No. 74 of 2018, which describes that the financial management of village funds uses the Village Financial System Application (*Siskeudes*).

Seeing the importance of government financial management accountability, several studies have found factors that can affect the accountability of government financial management which include conformity factors for applicable accounting standards, quality of human resources, adequacy of disclosure, compliance with legislation, effectiveness of internal control systems, commitment management, decision-making authority, organizational culture, and the use of information technology. Management of village funds requires good human resources and support for adequate and reliable information technology facilities. The competence of the village fund managers is the main requirement for applying the principle of accountability. Given the budget allocation from the APBN to be managed by the village government, it must be balanced with an increase in the quality of competent human resources. Village officials can increase their competence by continuing their education to a higher level. The passing of Law no. 6 of 2014 concerning 2014, is expected to improve the quality of village officials who have competencies in accordance with their fields.

This is in line with research conducted by Cheng, Engstrom & Kattelus: (2002) The importance of human resource competence for creating accountability in village financial management is also based on several previous studies including Fajri (2015), Mada et al (2017), Yudianto & Sugiarti (2017), Wardani & Andriyani (2017), Atmadja & Saputra (2018) , Dewi & Gayatri (2019) and Aziz & Prastiti (2019) who explain that the better the competency of resources (village apparatus), the higher the level of accountability for village fund management, which states that Accountability must be balanced with the ability of village officials to manage budgets because of villages with adequate competence will certainly support the successful management of village funds. Likewise, indicators of the use of information technology that consider the implementation of the Village Financial System (*Siskeudes*), one of which refers to the Regulation of the Minister of Finance (PMK) No. 247/2015. Furthermore, the development of indicators that form SPIP also refers to one of the information contained in Government Regulation (PP) No. 60 of 2008 as the basis for its development. Triyono et al (2019) also prove that the application technology for the *siskeudes* and SPIP has a positive effect on the accountability of village fund management. In addition, accountability can also be influenced by community participation. Referring to previous research conducted by Mada et al (2017) and Dewi and Gayatri (2019).

Based on some of the results of previous research, the amount of village funds disbursed by the central government from year to year, as well as referring to regulations on village finance as information to develop the variables to be studied, this study aims to explain the influence of the competence of village officials, the use of information technology, the application of SPIP, and community participation in the accountability of village funds.



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## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Stewardship Theory

Theory stewardship (Davis, 2000) states that there is no situation where management is motivated for individual goals, but rather focuses on the main goals, namely the interests of the organization. Theory stewardship could be applied in research to public sector organizations such as government organizations and not for profit other. Public sector organizations are prepared to meet intermediate information needs steward with principal. People as principal and government as steward, which is a relationship created because there are human traits that can be trusted, responsible, integrity and honest to the other party. Based on this theory, government management is required to provide services (act as steward / servants) for the sake of principal namely society and agencies (Sukarta, Badera, & Ratnadi: 2017).

The basic principle used is steward feel they have a big responsibility in terms of managing and allocating existing resources wisely and carefully to carry out services for the needs of the wider community, so that they are not motivated to fulfill personal desires, but by meeting the needs of the wider community, steward feel that self-actualization is fulfilled by increasing public trust. Theory implications stewardship. This research is able to explain the important role of the village government, namely as an institution which is a forum for aspirations for the community. The village head and village apparatus have responsibility for resource management and carry out the tasks entrusted to the reporting entity in achieving the goals set periodically. This accountability can be realized by providing regular information to the wider community regarding the implementation of village government activities. This is done as a form of accountability by the village government to the community regarding resource management and compliance with laws and regulations.

### Village Fund Management Accountability

Accountability is the obligation of the trustee / agent / village head and officials to provide accountability, present, report, and disclose all activities and activities that are their responsibility to the trustee (principal) who has the right and authority to ask for this accountability (Mardiasmo, 2009). The accountability of village organizations is promoted in the context of work efficiency and improving the quality of the performance of the village organization itself, especially in order to create an increase in the quality of life of its people. In the accountability for Village Fund Allocation (ADD), the village head has the role of being the head of the implementation team who is tasked with being responsible for ADD management from planning to implementation and supervision. Village financial management in Law no. 6 of 2014 concerning Villages and its implementing regulations, the village head is the holder of the power for village financial management. In exercising his power, the village head authorizes part of his power to the village apparatus, this is stated in Law No. 6 of 2014 concerning Village Article 75 paragraph (2). Based on *Permendagri* No. 113 of 2014 explains that village financial management is all activities that include planning, implementation, administration, reporting, and village financial accountability. There are also village financial management principles as follows: 1) Transparent, namely the principle of openness that allows the community to know and get the widest access to information about village finances, 2) Accountable, namely the embodiment of the obligation to be accountable for the management and control of resources and the implementation of entrusted policies in order to achieve predetermined goals, 3) Participatory, namely the implementation of village governance that includes village institutions and elements of village society; 4) Budget order and discipline, namely village financial management must refer to the rules or guidelines that underlie it. Village financial management, is managed within 1 fiscal year, from January 1 to December 31.

### Village Apparatus Competence

Competence is one of the factors that can affect accountability. To increase accountability requires competence (Frink and Klimoski, 2004). According to some experts, competence is a characteristic



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that underlies a person to achieve high performance in his job. (Ainsworth, Smirth, and Millership, 2007) it can be concluded that competence is a combination of knowledge and skills that are relevant to work. The passing of Law no. 6 of 2014 concerning Village 2014, is expected to improve the quality of village apparatus who have competence in accordance with their fields. Currently, village fund management still has many obstacles in its implementation, one of which is the human resource factor, namely the level of competence of village officials. For this reason, in its implementation, village officials must have knowledge and skills related to their work, this is done as a form of responsibility that each village apparatus must have in order to carry out village government activities.

### **Utilization of Information Technology (IT)**

The definition of information technology according to Suyanto (2005) is a general form that describes any technology that helps produce manipulating, storing, communicating, and / or delivering information, while according to Harnoni (2016) the use of Information Technology is interpreted as the behavior of accountants using information technology to solve tasks and improve performance. Based on the above definitions, it can be concluded that the Utilization of Information Technology is the act of utilizing a set of tools used by humans to help process information, store, and then communicate or convey information.

### **Government Internal Control System (SPIP)**

Internal control as referred to in paragraph (1) is a process designed to provide adequate assurance regarding the achievement of regional government objectives as reflected in the reliability of financial reports, efficiency and effectiveness of implementing programs and activities and compliance with laws and regulations (*Pemendagri No.13 of 2006*). Internal control is a process that is influenced by management that is created to provide adequate confidence in the achievement of effectiveness, efficiency, compliance with applicable laws and regulations, and reliability of the presentation of Government financial reports (PP No.8 Year 2006).Based on the above definitions, it can be concluded that the Government Internal Control System is a process designed by management to provide adequate assurance or confidence in the achievement of organizational goals through effective and efficient activities, reliability of financial reporting, safeguarding state assets, and compliance with laws and regulations.

### **Society participation**

According to (Davis, 2000) participation is the mental and emotional involvement of a person or individual in a group situation that encourages a person to contribute to aim group and account for involvement. According to (Juliantara, 2002) the substance of participation is the operation of a government system where no policy is taken without the consent of the people, while the basic direction to be developed is the empowerment process. Community participation can occur at four levels, namely first, participation in decision making. Second, participation in implementation. Third, participation in utilization. Fourth, participation in evaluation (Kaho, 2017).

### **Hypothesis Development**

#### **Village Apparatus Competence and Village Fund Management Accountability**

The financial management accountability of village funds is influenced by human resources, because quality financial reports cannot be realized without the involvement of human resources. To improve the competence of government officials, it is important to carry out a series of efforts including through education and training activities, as well as the experience itself. The importance of human resource competence as village financial managers will affect the quality of the accountability of financial report information produced (Cheng, Engstrom & Kattelus: 2002). The importance of human resource competence for creating accountability in village financial management is based on several previous studies including Fajri (2015), Mada et al (2017), Yudianto & Sugiarti (2017), Wardani & Andriyani (2017), Atmadja & Saputra (2018), Dewi & Gayatri (2019) and Aziz & Prastiti (2019) who



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explain that the better the competency of resources (village apparatus), the higher the level of accountability in managing village funds. So that the hypothesis can be formulated:

H1 : The competence of village officials has a positive effect on management accountability village funds

### **Utilization of IT and Accountability of Village Fund Management**

The evenly used information technology has been used by every sector, be it business or government, to help administer financial management efficiently and effectively. Government Regulation (PP) No. 56/2005 states that in order to follow up the implementation of a development process in line with the principles of good governance, the central government and local governments are obliged to develop and take advantage of advances in information technology to improve the quality of regional financial management and facilitate the delivery of financial information to the public. Research by Mayowan (2016) shows that the limited use of information technology causes the low quality of service to rural communities. Similar results are also shown by the research of Yudianto & Sugiarti (2017) and Aziz & Prastiti (2019), so that the use of information technology has the advantage of increasing the accuracy and accuracy of information and reducing errors. This series of descriptions forms the basis of the second hypothesis in this study, namely:

H2 : The use of information technology has a positive effect on the accountability of village fund management

### **Government Internal System Control (PSIP) and Village Fund Management Accountability**

Internal control is a way to direct, monitor and measure the resources of an organization. In addition, internal control also has an important role to play in preventing or detecting fraud. One of the general objectives of management when designing an internal control system is to maintain the reliability of financial information (Arens, Elder & Beasley, 2016). One of the factors that affect the quality of financial reporting is the internal control system (Widyatama et al 2017). Furthermore, research by Yudianto & Sugiarti (2017), Sari (2017), and Fathia (2017) explains that it is not sufficient. Internal control in the village government affects the quality of the reliability of financial reports. Research conducted by Triyono et al (2019) proves that it shows that internal control affects the accountability of village fund management in Wonogiri district. Therefore, the formulation of the third hypothesis in this study is:

H3 : The Government Internal Control System (SPIP) has a positive effect on the accountability of village funds

### **Community Participation and Accountability for Village Fund Management**

Accountability can be strengthened through increased community participation. The role of the community to participate in planning, implementation, control and supervision of development can improve government performance in an effective, efficient, transparent and accountable manner (Zeyn, 2011). The implementation of village government activities is carried out by running programs that have been determined by encouraging community participation as a form of direct community contribution to the village. Relation to theory stewardship, that the people are principal while the village government is steward. In its implementation, the village government will always prioritize the interests of the people by involving the people in decision making. Community participation is needed in order to prevent misunderstanding of the village fund budget, given that there is often misappropriation of village funds in various regions. This can be realized by applying transparent and accountable principles in the management of village funds. Research conducted by Mada et al (2017), Dewi and Gayatri (2019) shows that community participation has a positive and significant effect on the accountability of village fund management. Based on the description above, the following research hypothesis can be formulated:

H4 : Community participation has a positive effect on management accountability village funds



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## 3. RESEARCH METHODOLOGY

### Research design

The approach is quantitative research and associative methods that aim to determine the relationship between two or more variables. This study uses an explanatory research method that intends to explain the influence or relationship of the two variables studied, namely the independent variable and the dependent variable. The description of variables is as follows Village Apparatus Competence (X1) and IT Utilization (X2), Government Internal Control System (X3), and Community Participation (X4) which are independent variables in this study, while Village Fund Management Accountability is the dependent variable (Y) or variables that are affected

### Population and sample

The population in this study were village government officials in Sragen Regency. The sampling used is purposive sampling with predetermined criteria, namely villages that have implemented the application *Siskeudes* to manage the allocation of village funds, as well as selecting the village that receives the largest village funds in 2019 in each sub-district so that the number of village officials is 113 respondents from 20 villages. The reason for choosing the village that received the largest village funds was due to limited research resources. Furthermore, the selected respondents are village officials who know the process of village financial management, such as the village head, village secretary and head of affairs/ kaur.

### Data collection technique

The data collection method in this research is using a questionnaire / questionnaire, where the respondent only chooses the available answers. The measurement scale used in this instrument is a scale Likert and often called method of summated ratings, which means that the ranking value of each answer or response is added up to reach the total value. Scale Likert In general, using a rating of 5 assessment points, namely: 1) Strongly disagree 2) Disagree 3) Neither agree 4) Agree 5) Strongly agree The operational definition and instruments used to measure each research variable are as follows, The following are indicators of each variable adopted from previous studies.

**Table 1. The Research Instrument Indicators**

Operational definition	Indicators
<b>Village Fund Management Accountability</b> Referring to PP. 71 of 2010 concerning Governmental Accounting Standards, especially those that take an explanation of the qualitative characteristics of financial statements which include relevant, comparable, reliable, ease to understand. Referring to (Permendagri No.113 of 2014 concerning Village Financial Management) Referring to the Aziz & Prastiti questionnaire (2019)	1. Planning 2. Implementation 3. Accountability 4. Administration 5. Reporting
<b>Village Apparatus Competence</b> Referring to the questionnaire developed by Delanno & Deviani (2013) and Law no. 6/2014. Indicators of village apparatus competency are grouped to measure responsibilities, training, and experience. Referring to the questionnaire and research questionnaire developed by Griffin in Delanno and Deviani (2013)	1. Background education 2. Responsible 3. Training 4. Experience
<b>Utilization of IT</b> Referring to the definitions and research developed by Suyanto (2005), Winidyaningrum (2010), and PMK No. 247/2015 regarding the use of IT ( <i>Siskeudes</i> ). This variable measures subject hardware, namely computer equipment and internet network	1. Use of computers 2. Network Usage
<b>Government Internal Control System (SPIP)</b> Referring to Article 3 Paragraph 1 PP No. 60 of 2008 which measures the control environment, risk assessment, control activities, information and communication, and monitoring. Referring to the questionnaire developed	1. Environment Control 2. Risk Assessment 3. Control Activities 4. Information and



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by Widyatama (2017) Triyono et al (2019)

Communication

## 5. Monitoring

### Society participation

According to (Davis, 2000) participation is the mental and emotional involvement of a person or individual in a group situation that encourages a person to contribute to group goals and be accountable for their involvement. Referring to the questionnaire developed by Mada et al (2017), Dewi & Gayatri (2019)

1. Decision making
2. Implementation
3. Taking benefits
4. Evaluation

Source: Primary data

### Data analysis technique

The data analysis methods used in this research include descriptive statistical analysis, regression analysis and regression prerequisite tests for the best selected model using EViews 9.0. Descriptive statistics are used to determine the maximum, minimum, average, and standard deviation values of each variable. The regression equation model in this study is as follows:

$$AKUN\_DDit = \alpha + \beta1KOMP\_AD + \beta2PEMF\_TIit + \beta3SPIPit + \beta4PART\_MASit + e$$

Notes:

- AKUN\_DDit : Village Fund Management Accountability Score
- $\beta1KOMP\_AD$  : Village Apparatus Competency Score
- $\beta2PEMF\_TIit$  : IT Utilization Score
- $\beta3SPIPit$  : SPIP Application Score
- $\beta4PART\_MASit$  : Community Participation Score
- $\alpha$  : Constants (intercept)
- $\beta1 - \beta4$  : Regression coefficient
- e : Error

## RESULTS AND DISCUSSIONS

### Descriptive Analysis Results

This study uses primary data collected through a questionnaire and distributed to research respondents, namely village officials who carry out accounting / financial administration functions, consisting of the village head, secretary, treasurer, head of department, activity implementation team and deliberation body. Researchers distributed questionnaires to respondents as many as 120 questionnaires. The questionnaire returned was a total of 113 questionnaires. The description of the variables based on the answers of the respondents who became the research sample obtained the following results:

**Table 2. The Descriptive Analysis Results**

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Village Fund Accountability (Y)	113	133	152	139.1593	139.1593
Village Apparatus Competence (X1)	113	57	64	60.04425	1.460121
Utilization Information Technology (X2)	113	22	26	60.04425	1.460121
Government Internal Control System (X3)	113	40	44	42.28319	1.460121
Community Participation (X4)	113	32	35	42.28319	0.954231

Source: EViews 9.0 Data Processing

Respondents' answers to the accountability variable for village fund management showed a total average value of 139.15 and the number of indicators was 33 items the tendency of respondents' answers to each indicator is worth 4.2. This means that the respondent agrees that it is the responsibility of the trustee (village apparatus) to provide accountability, present, report, plan, organize, and disclose all activities and activities that are their responsibility to the party living the



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trust (principal) who have the right and authority to hold accountability in a transparent and accountable manner regarding the financial information on village fund management. Respondents also agreed that the village fund financial report was considered quality if it met the qualitative characteristics of the financial report which included relevant, comparable, reliable, and easy to understand. The independent variable is the competence of the village apparatus with a total average value of 60.04 and the number of indicators as many as 15 statements resulting in an average answer equal to 4.00 or are in the agreed answer option. This answer confirms that the respondent already has the competence regarding responsibility, training, experience and accounting training related to the tasks that must be done in managing village funds.

As for the information technology utilization variable, it was obtained a total average value of 24.39 and the number of indicators as many as 6 items of statements resulted in an average respondent's answer worth 4.06 or in the agreed criteria. The answers in the agreed range mean that the respondent understands the importance of using information technology both using computers and internet networks to manage village finances. The third independent variable, the government internal control system (SPIP) shows value the mean 42.28 with 10 question indicators item so as to produce an average answer value of 4.23 or including the category agree. This means that the respondents agreed that the more frequent use of SPIP, which includes the characteristics of the control environment, risk assessment, control activities, information and communication, and monitoring, will improve the quality of information on the accountability of the resulting village fund financial reports.

The community participation variable produces value the mean 33.55 from the number of statement indicators is 8 points. So that the average value is 3.36 or is in the criterion less agree / quite agree. This gives meaning that public participation which includes decision making, implementation, taking benefits and evaluation has not been fully achieved. Based on these criteria, it can be concluded that in the management of village funds, the village government has not fully provided space for the community to actively participate in planning, implementation and accountability.

### Regression Analysis Results

After previously going through the prerequisite test, this research data passed the normality, heteroscedasticity, and multicollinearity tests. So it is feasible to do a regression test. Based on hypothesis testing using statistical tools *Eviews* the following results were obtained:

**Table 3. Summary of Regression Test Results**

Variable	Standardized Coefficients Beta	t-statistic	Sig.	Hypothesis Direction	Results
<b>Village Apparatus Competence</b>	0.886066	3.693247	0.0003	+	H1 accepted
Utilization Information Technology	1.753694	3.384144	0.0010	+	H2 accepted
Government Internal Control System (SPIP)	0.767651	2.128286	0.0356	+	H3 accepted
Community Participation	0.733798	2.163926	0.0327	+	H3 accepted
Constant	-13.90761	-0.662009	0.5094		
R-square			0.342935		
Adjusted R-square			0.318599		
F-Statistic			14.09181		
Sig. F- statistic			0.000000		

Note: Dependent variable: Village Fund Accountability

Source: EViews 9.0 Data Processing



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Based on the table above, it can be seen that the variables of village apparatus competence, IT utilization, SPIP, and community participation affect the accountability of village fund management. This is indicated by p value or the significance level of t-partial in column t- statistics. The probability value of each independent variable shows a number less than the critical limit of 0.05, then the hypothesis answer is to accept H1, H2, H3, and H4, which means that all independent variables as predictors have a significant effect on the dependent variable, namely the accountability of village fund management. Based on Table 03 regarding the summary of the regression results, it is known that the value of adjusted R square is equal to 0.318. This indicates that 31.8% of the variation in the accountability of village fund management is influenced by the variable competence of village officials, IT utilization, SPIP, and community participation. Score R square 0.342 which explains that the four independent variables in this study are simultaneously capable of predicting strong enough in explaining the dependent variable, this is also reinforced by the value Adjusted R Square. Furthermore, after conducting a correlation analysis to calculate the contribution of each independent variable to the accountability of village fund management, it is known that the competence of the village apparatus has an effective contribution of 13.8%, the use of information technology is 10.11%, SPIP is 6.29% and community participation is 1.71%, so it can be concluded that the independent variable that has a dominant influence on village fund accountability is the competence of village officials, followed by the use of IT and SPIP while the last sequence is the variable of community participation as the smallest contributor.

### **Village Apparatus Competence and Village Fund Management Accountability**

The test in this study provides evidence that the competence of village officials has a positive effect on the accountability of village fund management in Sragen regency, this result means that the high competence of village government apparatus human resources is a supporting factor in the management of village funds that are quality, transparent and meet accountable criteria. It can be interpreted that if the competence of human resources is low and less effective it will result in a miss match in the management of village funds. Corresponds to stewardship theory which is a branch of psychology and sociology and is designed for researchers to test the conditions in which executives as managers (village officials) are motivated to do their best towards the main interests of the organization. In stewardship theory explained that the executive as a manager has a role in achieving organizational goals. In a village government organization the competence of human resources has a very important role, because it is human resources who run and manage an organization. This requires resources human beings who have competence in their fields. Competence can be in the form of physical and mental advantages including skills, abilities, knowledge and motivation that can contribute to the success of an organization. In achieving the effectiveness of financial management, the government must have competent human resources. The results of this study are in line with previous research conducted by Fajri (2015), Mada et al (2017), Yudianto & Sugiarti (2017), Wardani & Andriyani (2017), Atmadja & Saputra (2018), Dewi & Gayatri (2019) and Aziz. & Prastiti (2019) which explains that the better the competency of resources (village apparatus), the higher the level of accountability for village fund management.

The challenges faced by the village government today are generally caused by the weak capacity of the village apparatus' resources themselves. In carrying out the management of village funds as a result of the fiscal decentralization submitted by the central government to local governments and local governments to village governments, thorough preparation is needed. One aspect that needs to be prepared is resources. The implication of this research is that the changes that will be made to improve the government system, especially those related to the accounting sector, require human resources who have an adequate accounting education background. If the human resources who implement the accounting system do not have adequate competence, it will cause obstacles in the implementation of the accounting function.



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### **Utilization of IT and Accountability of Village Fund Management**

This study shows that the use of IT by the village government has a positive effect on the accountability of village fund management, meaning that the higher the level of information technology use, the higher the accountability level of the village fund management report. The use of information technology is explained through two indicators, namely the use of computers and internet networks. The influence of internet technology in the government sector is very valuable, apart from simplifying the administrative system and data management on line so that the process of sending data, financial reporting, and staffing systems becomes easier to organize. The existence of ease in financial management is also not spared utilization of the Siskeudes application which accelerates reporting and supervision to the central government because it provides reliable and accountable information.

This research is in line with the results tested by Mayowan (2016) showing that the limited use of information technology causes the low quality of service to rural communities. Similar results are also shown by research by Yudianto & Sugiarti (2017) and Aziz & Prastiti (2019). Implications for village governance according to PP. 56 of 2005 which states that to follow up on the implementation of the development process to realize good governance (good governance), Local governments are required to develop and take advantage of advances in information technology to improve the ability to manage regional finances, and channel regional financial information to public services. The use of application-assisted information technology, namely Siskeudes, has been proven to make it easy for village receiver transfer fund village to account for financial management. For stakeholders, the use of information technology can make it easier for them to receive financial reports that have been presented in a certain format and at a certain time.

### **Government Internal System Control (PSIP) and Village Fund Management Accountability**

The test results in the regression provide an explanation that SPIP has a positive effect on the accountability of village fund management. The meaning of this test result is that the higher the level of internal control of the village government, it will have an effect on the higher the level of accountability for village fund management, on the other hand, accountability will result in low quality financial reports if government officials have an inadequate internal control system. The simultaneous test results explain that the SPIP applied by the village government is the biggest contributing factor to the accountability of village fund management. This implies that internal control is part of risk management that must be carried out by every village government agency to achieve organizational goals. The implementation of adequate internal control will provide adequate confidence in financial reports and will increase the trust of stakeholders, especially the public.

The results of the test are consistent with the results of previous studies by Widyatama et al (2017), research by Yudianto & Sugiarti (2017), Sari (2017), Fathia (2017) and Triyono et al (2019) who suggest that SPIP includes various management tools that aim to achieve a wide variety of purposes. These objectives are to ensure compliance with laws and regulations, ensure the reliability of financial reports and financial data, facilitates the efficiency and effectiveness of government operations. In accordance with PP. 60 of 2008, the Government Internal Control System is aimed at achieving organizational goals, including effective and efficient implementation of activities resulting in reliable financial reporting, maintained security of regional / state assets, and compliance with laws and regulations. SPIP must be implemented at every level of government both at the ministerial level to regional government. The regional inspectorate is the party who is assigned as an internal supervisor in order to ensure the implementation of SPIP within the scope of government organizations.

### **Community Participation and Accountability for Village Fund Management**

The test results show that community participation has a positive effect on the accountability of village fund management. Although not too significant, the results of this test support research conducted by Zeyn (2011), Mada et al (2017), Dewi and Gayatri (2019) which show that community participation has a positive and significant effect on the accountability of village fund management.



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The meaning of this positive influence is that the accountability of village fund management can be strengthened through increasing community participation. Community participation in village fund allocation activities is a way to increase accountability as an emerging response to high public distrust of the government. Community participation in allocation activities Village funds are a way to increase accountability in response appears against the high level of public distrust of the government. Although The level of participation of the Sragen community is not yet high due to the village government does not completely open up opportunities to be involved in every activity but test prove that citizen participation can lead to financial governance village government for the better, because of the closer distance between the governments and the community becomes closer.

### 5. CONCLUSION

The results showed that the variables of village apparatus competence, use of information technology, government internal control system (SPIP), and Community participation affects the accountability of village fund management in Sragen regency, Central Java. The independent variable that has a dominant influence on the accountability of village funds is the competence of village officials, followed by the use of IT and SPIP, while the last sequence is the variable of community participation as the lowest contributor. The magnitude of the simultaneous influence of the four independent variables is 34.3%, meaning that there are still many other determinant factors that affect the accountability of village fund management outside the variables used by researchers.

### LIMITATION AND STUDY FORWARD

Based on the discussion and conclusions obtained, there are several suggestions what can be conveyed to the village government in Sragen Regency should be obliging all village officials to increase their knowledge both by continuing education or regularly participating in training related to village accounting, funds village funds, allocation of village funds and other special skills, considering utilization IT also makes a major contribution to accountability in managing funds village, it is very important to provide training and education to the ranks of the apparatus information technology-based villages, especially the improvement of application usage proficiency *Siskeudes* and internet networks. Limitations, this study only uses a sample that is fixed in one area so that the results of the study cannot be generalized as a whole to the same subject. As for the next researchers to reflect on limited scope of research and research results that only show coefficients determination  $< 50\%$  it is advisable to add and consider other variables which are thought to influence the accountability of fund management village.

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## **THE EFFECT OF ORGANIZATIONAL CITIZENSHIP BEHAVIOR AND GOOD CORPORATE GOVERNANCE ON EMPLOYEE PERFORMANCE PT BUNDA BERSAMA BOJONEGARA KABUPATEN SERANG**

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### **Abstract**

This study aims to determine and analyze whether there is an effect of *Organizational Citizenship Behavior and Good Corporate Governance* on Employee Performance of PT Bunda Bersama Bojonegara Kabupaten Serang. Data collection techniques in this study through literature study, observation, observation, questionnaires. The study population numbered 36 people using saturated samples. Researchers obtained primary data by distributing questionnaires to 36 employees of PT Bunda Bersama. Using partial hypothesis testing (t-test) and simultaneous hypothesis testing (F test). The results of the research and the results of hypothesis testing that have been carried out show that there is a significant effect on the t-test, which means that the *Organizational Citizenship Behavior* variable has a significant effect on the performance of PT Bunda Bersama employees, the results of the *Good Corporate Governance* variable have a significant effect on employee performance, and the F-test results have a significant effect. , it means that the Variables *Organizational Citizenship Behavior* and *Good Corporate Governance* have a significant effect together on the Employee Performance of PT Bunda Bersama. This shows that employee volunteerism to help colleagues in a company and the principles or company rules applied by the company to improve the performance and contribution of the company in the long term has an influence on employee performance.

**Keywords:** *Organizational Citizenship Behavior, Good Corporate Governance, and Employee Performance*

### **1. INTRODUCTION**

Among the various resources owned by the company, Human Resources occupies a strategic position among other resources. Without HUMAN RESOURCES, other resources owned by the organization cannot be utilized let alone to be managed into a product. A good organization, in its development, must focus on human resources (*human resources*) to perform its functions optimally, especially in the face of environmental changes that occur. Thus the technical, theoretical, conceptual, and moral capabilities of various organizational actors at all levels of work are urgently needed.

Each organization is interested in the best performance that can be generated by the suite of systems that apply in that organization. HR management is one of the key factors to get the best performance because, in addition to addressing skills and expertise issues, HR management is also obliged to build employee conducive behavior to get the best performance.

Talking about performance has always been to do with the culture of behavior within the organization itself. *Organizational Citizenship Behavior* is a new concept in terms of performance analysis. This concept explains that *the behavior of Organizational Citizenship Behavior* is carried out by an individual with freedom (at will) in determining something and mutual understanding with the absence of requests for rewards or other formal rewards against the organization, so this behavior is very helpful and beneficial to the organization. This concept of behavior was first introduced in the mid-1980s by Dennis Organ and continues to evolve and expand.

Employee performance will run well if supported by good factors as well. Without supporting factors, employee performance will not be as expected. One of the other factors that affect employee



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performance is *Good Corporate Governance*. control the company to create added value for all *stakeholders*. One of the conditions facing public companies in Indonesia is that there are still weaknesses in managing the company. This is demonstrated by weak regulatory standards and shareholder liability and widening structures in the company's inefficient management process, resulting in the company's performance not being able to run to the maximum. As one of the efforts to overcome the many weaknesses in the company in Indonesia, business people in Indonesia agreed on *the implementation of Good Corporate Governance* or commonly known as a good corporate governance system.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Based on the background of the above problems, the authors can identify the problems that will be discussed in this study as follows: Is there a significant influence between *Organizational Citizenship Behavior* on the performance of employees of PT Bunda Bersama, Is there a significant influence between *Good Corporate Governance* on the performance of employees of PT Bunda Bersama, Is there a significant influence between *Organizational Citizenship Behavior* and *Good Corporate Governance* on the performance of PT Bunda Bersama employees.

## 3. RESEARCH METHODOLOGY

The draft design in this study is a *non-experimental design* Of systematic empiric study in which scientists cannot directly control the variables whose manifestations have emerged.

The quantitative method is a process of finding knowledge that uses data in the form of numbers as a tool to analyze information about what you want to know.

The type of study in this study is a correlation, correlation research is a study that includes data collection activities selecting and determining between the relationship and relationship level of two variables as well as more depictions done systematically and accurately regarding facts in factual and actual.

This research was conducted using a deductive approach. The deductive approach presses on the theory first and then observations, and takes conclusions from something common to something special.

## 4. RESULTS AND DISCUSSIONS

**Table 1 Normality Test  
One-Sample Kolmogorov-Smirnov Test**

		Unstandar dized Residual
N		36
Normal Parameters <sup>a,b</sup>	Mean	0,0000000
	Std. Deviation	3,33351487
Most Extreme Differences	Absolute	0,091
	Positive Negative	0,091 -0,071
Test Statistic		0,091
Asymp. Sig. (2- tailed)		.200 <sup>c,d</sup>



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- a. Test distribution is Normal.
- b. Calculated from data.

*Asymp.Sig. statistical values for all variables to be tested are Organizational Citizenship Behavior (X1), Good Corporate Governance (X2), and Employee Performance (Y) of 0.200. Asymp.Sig statistical value. (2- tailed) > from a significant level ( $\alpha$ ) of 0.05, it can be inferred that the residual value of the normality test is greater than 5% then the classic assumption test of normality is met or distributed normally.*

**Table 2 Multicollinearity Test**

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4,425	3,607		1,227	0,229		
	OCB_X1	0,342	0,116	0,380	2,949	0,006	0,496	2,014
	GCG_X2	0,559	0,133	0,540	4,192	0,000	0,496	2,014

c. Dependent Variable: Performance\_Y

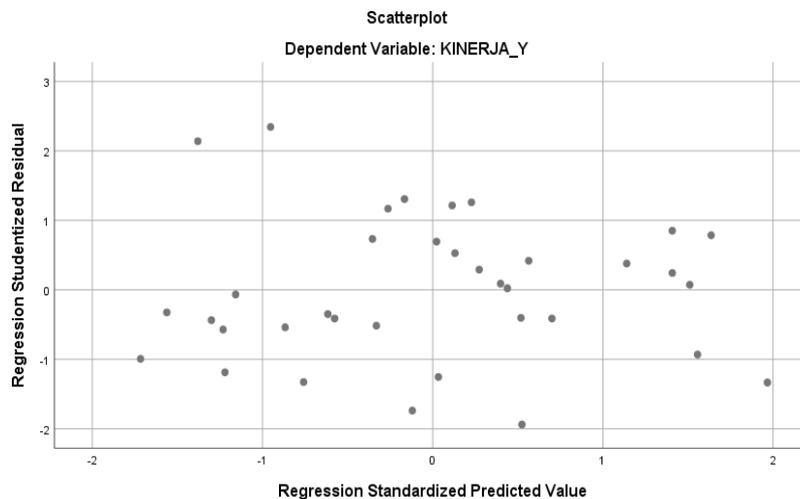
From the above multicollinearity test results, *the tolerance value for the Organizational Citizenship Behavior (X1) variable is 0.496 and Good Corporate Governance (X2) 0.496 means tolerance value > 0.10 and the VIF value for the Organizational Citizenship Behavior (X1) variable of 2.014 and Good Corporate Governance (X2) 2,014 means the value of VIF < 10 then it can be concluded that there is no multicollinearity problem between independent variables in the regression model.*

**Table 3. Heteroskedastisitas**  
Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,551	2,084		2,184	0,036
	OCB_X1	-0,034	0,067	-0,124	-0,510	0,614
	GCG_X2	-0,018	0,077	-0,056	-0,231	0,818

d. Dependent Variable: Abs\_res

From the heteroskedastisitas test results above, the value of significance for *the Variable Organizational Citizenship Behavior (X1) 0.614 and Good Corporate Governance (X2) 0.818 means the value of significance > 0.05 then it can be concluded that in the regression model there are no symptoms of heterokdastisitas.*



Based on the image above, the resulting heteroskedasticity test is that there is no clear pattern and the dots spread above and below the number 0 on the Y axis, then there are no heteroskedasticity.

**Table 4 Autocorrelation test**  
Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.853 <sup>a</sup>	0,728	0,711	3,433	2,082

e. Predictors: (Constant), GCG\_X2, OCB\_X1

f. Dependent Variable: Performance\_Y

If judging by the table results obtained a value of 2,082 has a level above 1,587 and below 2,412, then it can be concluded that in the regression model there are no symptoms of autocorrelation.

### Hypothesis Testing UJI t

**Table 5. The Effect of Organizational Citizenship Behavior (X1) on Employee Performance (Y)**  
Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,425	3,607		1,227	0,229
	OCB_X1	0,342	0,116	0,380	2,949	0,006
2	GCG_X2	0,559	0,133	0,540	4,192	0,000

a. Dependent Variable: Performance\_Y



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Based on the output results in the table, it can be known if actually, *Organizational Citizenship Behavior* has an influence on employee performance and the calculation results obtained show that the t count value is 2,949 with the sig. level for *Organization Citizenship Behavior* is 0.006 ( $p < 0.05$ ). With  $dk = 36 - 2 - 1 = 33$ , obtained t table of 2,034 (t count > t table), therefore the H1 hypothesis is accepted, meaning it can be concluded that *the Variable Organizational Citizenship Behavior* has a significant effect on the Employee Performance of PT Bunda Bersama.

### UJI t

**Table 6. The Effect of Good Corporate Governance (X2) on Employee Performance (Y) Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4,425	3,607		1,227	0,229
OCB_X1	0,342	0,116	0,380	2,949	0,006
GCG_X2	0,559	0,133	0,540	4,192	0,000

a. Dependent Variable: Performance\_Y

Based on the output results in the table, it can be known *if in fact*, *Good Corporate Governance* has an influence on employee performance and the calculation results obtained show that the t count value is 4,192 with the sig. level for *Good Corporate Governance* is 0.000 ( $p < 0.05$ ). With  $dk = 36 - 2 - 1 = 33$ , obtained t table of 2,034 (t count > t table), therefore the H1 hypothesis is accepted meaning it can be concluded that *the variable Good Corporate Governance* has a significant effect on the Performance of Employees of PT Bunda Bersama.

### Discussion

#### The Effect of Organizational Citizenship Behavior on Employee Performance

From the calculation of statistical analysis obtained that the t count value is 2,949 with the sig. *rate for Organization Citizenship Behavior* is 0.006 ( $p < 0.05$ ). With  $dk = 36 - 2 - 1 = 33$ , obtained t table of 2,034 (t count > t table), therefore the H1 hypothesis is accepted, meaning it can be concluded that *the Variable Organizational Citizenship Behavior* has a significant effect on the Performance of Employees of PT Bunda Bersama.

The results of this study are in accordance with previous research conducted by dika fidiyanto, moh mukeri wars, and Azis Fathoni, (2018) entitled *The Influence of Organizational Citizenship Behavior and Compensation on Employee Performance (Study on PT Hop Lun Indonesia)* the results show organizational citizenship behavior *has* a significant effect on employee performance of PT Hop Lun Indonesia.

#### The Influence of Good Corporate Governance on Employee Performance

From the calculation of statistical analysis obtained that the t count value is 4,192 with the sig. level for *Good Corporate Governance* is 0.000 ( $p < 0.05$ ). With  $dk = 36 - 2 - 1 = 33$ , obtained t table of 2,034 (t count > t table), therefore the H1 hypothesis is accepted meaning it can be concluded that *the variable Good Corporate Governance* has a significant effect on the Performance of Employees of PT Bunda Bersama.



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The results of this study are in accordance with previous research conducted by saiful amri, andi tri haryono, and m mukery warso (2016) entitled *The Influence of Good Corporate Governance on Employee Performance of PT Aditec Cakrawiyasa Semarang* the results of the study show good corporate *governance* has a significant effect on the Employee Performance of PT Aditec Cakrawiyasa Semarang.

### 5. CONCLUSION

Based on the results of analysis and discussion of *research on the influence of Organizational Citizenship Behavior and Good Corporate Governance on Employee Performance of PT Bunda Bersama*, the authors draw the following conclusions:

1. *Organizational Citizenship Behavior* significantly affects the Performance of Employees of PT Bunda Bersama. This shows that employee volunteering to help workmates within a company influences employee performance.

2. *Good Corporate Governance* has a significant effect on the Performance of Employees of PT Bunda Bersama. This indicates that the company's principles or regulations applied by the company to improve the company's performance and contribution in the long term influence employee performance

3. *Organizational Citizenship Behavior* and *Good Corporate Governance* have a significant effect together on the Performance of Employees of PT Bunda Bersama. This shows that employee volunteering helps colleagues within

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## PERCEPTIONS OF USEFULNESS AND BEHAVIORS TO KEEP USING IN THE IMPLEMENTATION OF REGIONAL MANAGEMENT INFORMATION SYSTEM APPLICATIONS

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### Abstract

The purpose of this study is to test the successful implementation of the Regional Management Information System by linking the perceived ease of users mediated by perceptions of behavior to continue to use and benefit. This research is a quantitative research with a survey method using a questionnaire at the South Sumatra Provincial Government. Then, the data is processed and analyzed using PLS. From the results of the analysis, it is found that there is no significant influence between the relationship between user convenience and the successful implementation of the Regional Information Management System. However, perceived of usefulness and behavior to continue to use mediate the relationship between perceived ease of use of users on the successful implementation of the Regional Information Management System. The absence of direct interviews because Covid-19 and the number of respondents who did not cover a large area were the limitations of this study. This research contributes to the decision makers of accounting system developers to consider the factors that encourage system users who can try to participate in realizing the successful implementation of the system itself.

**Keywords:** *Benefit, Behavior to Continuous to Use, SIMDA*

### 1. INTRODUCTION

The SIMDA application is a product of information system technology used by many local governments in Indonesia in managing their regional finances. According to Anshar (2013), the SIMDA application is a database application that aims to facilitate regional financial management within the Regional Apparatus Organization (SKPD). The SIMDA application was developed by paying attention to and implementing the Government Internal Control System (SPIP). Therefore controlling the application is a must to serve as a guideline for local governments in implementing the SIMDA application that produces Regional Government Financial Reports (LKPD). Local governments are currently being required to produce LKPDs that have high accountability and transparency values.

According to Djadja (2013), the success of implementing the SIMDA application is influenced by many factors, one of which is the understanding of the local government in preparing LKPD using information technology by end users or understanding in following the flow of regional financial transactions using the SIMDA application. Seddon (2013) states that by overcoming application weaknesses it will be better, end user satisfaction can be used to measure the successful implementation of accounting software used in an organization.

Davis (1989) defines usefulness as a level where a person believes that the use of a particular subject will be able to increase the person's work performance. Based on this definition, it can be interpreted that the benefits of the use of information technology can improve performance, increase productivity, and increase work performance and the performance of those who use it. The use of information technology is the benefit expected by IT users in carrying out their duties. Using SIMDA is faster, easier, and more accurate and useful for LKPD managers, users will experience real benefits in using SIMDA and will tend to keep using this technology and can minimize failures in reporting and the success rate of SIMDA users is more accurate.



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Behavior to keep using According to Davis (1989) the tendency of behavior to keep using an information system in a person can be predicted from their attitude and attention to information technology. Attitudes that show a desire to add supporting features, motivation to keep using, and a desire to motivate others to use information technology greatly encourage the successful adoption of an information system technology. In the presentation of LKPD, if the manager finds it easier to use the SIMDA application and can improve performance, the manager will continue to use SIMDA and the success rate of SIMDA is more accurate. This research is the development and testing of TAM conducted by Anshar (2013), Hussein (2017), Wu and Chen (2017) and Taherdoost (2018). What distinguishes this research from previous research is the data analysis method used, this research uses SEM (Structural Equation Modeling) analysis which is operated through the PLS program and the researcher tries to expand the scope of the object, namely the South Sumatra Provincial Government.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The TAM model developed by Davis (1989). The TAM model was actually adopted from the Theory of Reasoned Action (TRA) model, namely the theory of reasoned action developed by Fishbein and Ajzen (1975). The purpose of this model is to explain the main factors of information technology user behavior towards the acceptance of the use of information technology itself. According to Andyka, Endang, and Heru (2012). Perceived ease of use is defined as the extent to which a person believes that using a technology will be free from effort. If someone believes that information systems are easy to use then he will use them. Conversely, if someone believes that information systems are not easy to use, then he will not use them. Several previous studies were conducted by Davis (1989); Igbaria et al (2013). According to Wibowo (2013), the usefulness dimension consists of the usability dimension, namely making work easier, more useful, and increasing productivity. Meanwhile, the dimension of effectiveness is increasing effectiveness and developing job performance.

The level of use of a technology in a person can be predicted from the attitude of his attention to the technology, for example the desire to add supporting features, motivation to keep using, and motivate other users (Davis, 1989). The results of previous studies indicate that behavioral interest is a good predictor of technology acceptance from system users (for example, research conducted by Taylor and Todd, 1995; Venkatesh and Davis, (2003)

According to Sayekti and Putarta (2016) if SIPKD users have the perception that SIPKD is easy to use and makes their work easier, they will increasingly use SIPKD to complete their work. Based on the explanation above, the first hypothesis in this study;

H1: Perceived ease of use Influence the successful implementation of the SIMDA application.

Research conducted by Sayekti and Putarta (2016) states that if users have the perception that SIPKD is easy to use and useful in completing their work, users will increasingly use SIPKD in their work. Based on the description above, the hypothesis is:

H2: perceived usefulness mediates the relationship between perceived ease of use to the successful implementation of the SIMDA application

Research by Wibowo (2007) shows that the level of use of computer technology in a person can be predicted from the attitude of his attention to the technology, for example the desire to add supporting software, motivation to keep using, and the desire to motivate other users. Based on the description above, the hypothesis is as follows.

H3: Perceived behavior to keep using mediates the relationship between perceived ease of use to the successful implementation of the SIMDA application.

### 3. RESEARCH METHODOLOGY

Sources of data in this study use primary data. The population in this study were SKPDs in South Sumatra Province. The sample is part of the population (part or representative of the population to be

studied) (Jogiyanto, 2007). The sample in this study is the Head of the Department, Head of Sub Division of Finance, Staff of Accounting, Treasurer, Operator of Simda, Assistant of Accounting who are within the scope of the South Sumatra Provincial Government. To test the proposed hypothesis, the SEM (Structural Equation Modeling) analysis technique is used which is operated by PLS (Partial Least Squares).

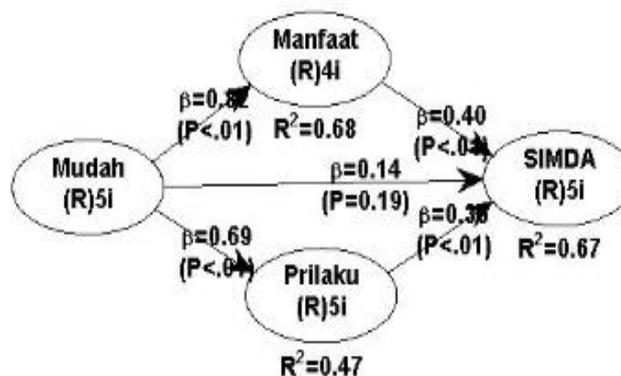
## 4. RESULTS AND DISCUSSIONS

Respondent of data are as follows.

**Table 1 Respondent**

	Namely	Amount	Totally
<b>Gender</b>	Male	53	<b>127</b>
	Female	74	
<b>Age</b>	20-30	41	<b>127</b>
	30-40	46	
	40-50	32	
	50-60	8	
<b>Position of Office</b>	Treasure	12	<b>127</b>
	Head of Sub Division of Finance	30	
	Staff of Accounting	50	
	Operator of Simda	20	
	Assistant of Accounting	17	

Based on the results of data processing using Warp PLS with mediating variables (Baron and Kenny, 1987). The data in this study passed the validity and reliability tests. The results of the hypothesis are as follows.



**Figure 1. Path Diagram**

H1: Perceived ease of use Influence the successful implementation of the SIMDA application	<b>Not Supported</b> , with <i>p-value</i> >0.05 or 0.19
H2: perceived usefulness mediates the relationship between perceived user friendliness and the successful implementation of the SIMDA application	<b>Partially Supported</b> , although the relationship between the benefits to the successful implementation of the SIMDA application is significant with a p-value of 0.005 but the relationship between the Ease of use and the perceived usefulness is not significant with a p-value of 0.191



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H3: Perceived behavior to keep using mediates the relationship between perceived user convenience and the successful implementation of the SIMDA application	<b>Supported</b> , with the significance of the results of the relationship between user ease of behavior and perceptions of behavior towards the successful implementation of the SIMDA application with a p-value of 0.001
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Source, Data Process, 2020

Based on the results above, Hypothesis one is not supported. Ease of use is a concept that has received attention in the use of information systems technology. The individual's effort to become a resource to do and try should be part of allocating more opportunities. Therefore, a system that requires small effort is said to be easier to use than a system requiring more effort. This shows that the ease of using information technology in the Regional Work Units (SKPD) can help facilitate work to make it better if it is followed by the willingness of users to continue to try to use it in line with Sayekti and Putarta's (2016).

The South Sumatra Provincial Government as the SIMDA Application User must be adjusted to the needs of the local government in drafting LKPD with the aim of producing LKPD with Unqualified Opinions (WTP). So the level of usefulness of the SIMDA application influence to the success of implementing the application, these results are in line with Sayekti and Putarta (2016). However, perceived convenience has no effect on perceived convenience. Users, namely the South Sumatra Provincial Government in general consist of several SKPDs and have different perceptions of ease in their work supported by different educational backgrounds so that different levels of understanding. Muchlas et al (2015) define behavior to continue to use as a behavioral tendency to continue to use technology. The level of use of a technology in a person can be predicted from the attitude of his attention to the technology, for example the desire to add supporting features, motivation to continue to use, and motivate other users (Davis: 1989). Attention of attention to use is a good predictor of the successful implementation of an information system technology.

### 5. CONCLUSION

Based on the results and discussion above, it can be concluded that there is no effect of perceived user convenience on the successful implementation of the SIMDA application, perceived usefulness mediates part of the relationship between the perceived ease of users on the successful implementation of the SIMDA application, and the perception of behavior to continue to use mediates the relationship between perceived user ease of influence on the successful implementation of the SIMDA application.

### LIMITATION AND STUDY FORWARD

In this study did not use the direct interview method before conducting the survey to get accurate respondents. Then this research is still in the South Sumatra Provincial Government area. So it is hoped that further research can consider interviews and wider objects.

### ACKNOWLEDGEMENT

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## WEBSITE QUALITY AS A FACTOR AFFECTING CUSTOMER SATISFACTION AND REPURCHASE INTENTION: THE WEBQUAL 4.0 APPROACH

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### Abstract

**Purpose:** This study was to analyze the direct effect of Website Quality on customer satisfaction and repurchase intention. This study also analyzes the indirect effect of website quality on repurchase intention through customer satisfaction as the mediating variable.

**Research Methodology:** The type of research is quantitative study with experimental research methods. This study uses primary data through distributing questionnaires to 200 respondents. The sampling takes by using non probability sampling technique. Hypothesis were tested using *Structure Equations Modelling* (SEM).

**Results:** The results showed that Website Quality has a direct significant effect on customer satisfaction and has an indirect effect on repurchase intention through customer satisfaction as the mediating variable. While the website quality variable does not have a direct effect on repurchase intention.

**Limitations:** This study has limitations in terms of time and the object of research which only focuses on the shopee E-commerce website, besides that the variables used in this study are only limited.

**Contribution:** This research contributes to knowledge in the field of marketing management regarding factors that can affect customer satisfaction. In addition, it can be consideration for E-commerce businesses to increase their customer satisfaction and repurchase intention.

**Keywords:** *Website Quality, Customer Satisfaction, Repurchase Intention, E-Commerce.*

### 1. INTRODUCTION

The industrial revolution 4.0 makes a big phenomenon towards changes in consumer buying behaviour, one of which is the tendency of consumers to shop online by using electronic commerce (E-commerce). According to Loudon and Traver (2014) E-Commerce is the use of website-based internet and mobile applications for business transactions ranging from product marketing and sales, product purchases, payments to products received by consumers. In the era of 4.0, e-commerce transactions in Indonesia experienced quite rapid development. Based on data from Bank Indonesia, in 2019 the number of transactions reached 13 Trillion rupiah every month with the growth of e-commerce in Indonesia eight times increased from 2017 to 2018 and total online shopping from US \$ 8 billion in 2017, increasing to US \$ 55 billion in 2018 and is predicted to reach US \$ 65 billion in 2020 (Tempo.Co, 2019). Meanwhile, data released by the British research institute Merchant Machine in 2019 regarding the list of ten countries with the fastest growing e-commerce in the world stated that Indonesia was first ranked of these countries with 78% growth in 2018 (Databoks Katadata, 2018). The rapid growth of E-commerce in Indonesia has made the level of marketplace competition even tighter, so that customer satisfaction is very important to pay attention in order to be able to compete in the e-commerce business. The key to win a business competition is to create customer satisfaction through improving service quality (Tjiptono & Chandra, 2015). The quality of service on online shopping website can be measured through the quality of the website.

Website quality is considered as the whole of the quality of e-commerce services based on the customer's point of view, so that by evaluating the website, companies selling online can find out



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which aspects of the website are the most preferred by consumers and this will lead to online customer satisfaction (Shin et al., 2013). The quality of a website in E-Commerce transactions is an important driving factor for customer satisfaction (Bansal et al., 2004). A good website must be able to provide complete and accurate information and ease of navigation with an attractive website design appearance to provide convenience for online consumers and retain their customers in the online retail business (Tandon et al., 2017). Good website quality also can encourage repurchase intention of online consumer. Shin et al (2013) stated that website quality is important factors in increasing repurchase intention from the customer's perspective. Shin continued that online consumers who are satisfied with the performance of a website will encourage consumer repurchase intention. Based on previous research, the measurement of website quality according to customer perceptions is a very important factor for companies to be able to compete in the e-commerce business (Jasur & Haliyana, 2015).

The research on website quality has attracted the attention of many researchers. However, previous studies mostly used the SERVQUAL measurement method developed by Parasuraman which focused on website information systems (Pitt et al., 1997), while measuring the quality of websites using the WebQual 4.0 approach method is still very limited. Therefore, measuring the quality of the website in this study will use the WebQual 4.0 approach developed by Barnes and Vidgen (2002).

In Indonesia, the most popular online shopping website is Shopee E-commerce. Based on data from the IPrice Group in the third quarter of 2019, Shopee as the first ranks the most downloaded online shopping website with a total monthly website visitor reaching 56 million visitors (Iprice, 2019). The large number of Shopee website users has resulted in several customer complaints about Shopee website quality services. This is confirmed by data from the Indonesian consumer institution foundation (YLKI) regarding reports of consumer complaints in online shopping on e-commerce websites, where Shopee is first ranked among e-commerce websites in Indonesia in the number of customer complaints throughout 2019, which 14, 7% (Tempo.Co, 2020).

The Customer complaints are a business problem that shows customer dissatisfaction with the quality of company services which will have a negative impact on the company's reputation and customer relationships (Maousavi et al., 2013). This is confirmed by Kotler and Keller (2012) who state that if the performance of the company's service quality is below expectations, the customer is not satisfied. In research conducted by Kuo et al (2009) the quality of electronic services reflected in the quality of the website affects customer satisfaction, which in turn will affect consumer intention in making repurchases. The problems that arise due to customer dissatisfaction can affect consumer repurchase intention so that it has an impact on decreasing company profitability (Hsu et al., 2012).

There are several studies that have been conducted by academics in looking at the relationship between website quality on customer satisfaction and its impact on repurchase intention, but there are still many differences in the results of these studies that need to be re-confirmed through this study. As research conducted by Al-Manasra (2013) on the telecommunications sector in Jordan, the results of this study indicate that the quality of the website is a factor that can directly affect customer satisfaction. The same research results were stated by Al-Ardi and Yuliasetiarini (2018) & Kurniawati et al (2018) who obtained the results that the quality of websites in companies that sell online products through e-commerce media can significantly influence customer satisfaction. Other research conducted by Gounaris et al (2010), Tandon et al (2017) and Kumar et al (2017) obtained the results of website quality can affect repurchase intention through customer satisfaction as a mediating variable. Udo et al (2010) a study in the United States found that the indirect effect of website service quality on repurchase intentions through customer satisfaction was greater than the direct effect of website service quality on repurchase intentions. The results of this study were reinforced by research conducted by Hasanov and Khalid (2015) on an online organic food sales site in Malaysia involving 304 respondents who obtained the results that the quality of the website had an indirect influence on the interest in purchasing healthy food products in Malaysia.



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However, there are differences in the results of research from several academics who examine the relationship between website quality on customer satisfaction and its impact on repurchase intention. Such as research conducted by Noronha & Rao (2017) who conducted research on online travel ticket booking sites, where the results of their research show that the quality of the website does not have a significant effect on consumer satisfaction. The same results were found in research conducted by Rahmawanti, Waliya (2016) and Khairunnisa and Wasiyanti (2018) which obtained the results that website quality as measured using the usability dimension had no significant effect on customer satisfaction. Octavia and Tamerlan (2017) in their research on Agoda.com site at online hotel booking show that the website quality does not have a significant effect on online consumer purchase intention. The results of this study are reinforced by research conducted by Srivastava (2014) and Bai et al (2008) which states that the quality of the website has no significant effect on repurchase intention through customer satisfaction as the mediating variable.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### E-Commerce

According to Kotler and Armstrong (2014) E-commerce is an online channel that can be reached by a person via a computer, which is used by business people in carrying out business activities and is used by consumers to obtain information using computer assistance, which in the process begins with providing information services to consumers in determining selection. Meanwhile, according to Wong (2010) E-commerce is the process of buying and selling and marketing goods and services through electronic systems, such as radio, television and computer networks or the internet. Furthermore, Laudon and Traver (2014) explain that E-Commerce is the use of the internet and the Website for the purposes of business transactions. E-Commerce can be divided into some criteria:

1. Based on the basis of market relations, e-commerce can be divided into three, namely:
  - a. Business-to-Consumer (B2C), is an online business that makes sales to individual consumers or individuals.
  - b. Business-to-Business (B2B), is an online business that makes sales to other businesses.
  - c. Consumer-to-Consumer (C2C), provides a way for consumers to sell to other consumers.
2. Based on the technology base, E-Commerce can be divided into three, namely:
  - a. Business-to-Consumer (B2C), is an online business that makes sales to individual consumers or individuals.
  - b. Business-to-Business (B2B), is an online business that makes sales to other businesses.
  - c. Consumer-to-Consumer (C2C), provides a way for consumers to sell to other consumers.

### Website Quality

Website quality (WebQual) is a perception of the overall quality of an internet-based trading site based on the customer's point of view (Tandon et al., 2017). Website quality can be used as a tool to evaluate the quality of information and quality of interactive services on a website, especially those that provide E-Commerce services (Yaghoubi et al., 2011).

According to Slabey (1990) in Barnes and Vidgen (2003), WebQual is a structured and disciplined process that provides facilitates to identify and carry customers through each stage of product or service development and implementation. WebQual has been developed since 1998 and has experienced several interactions in the preparation of dimensions and questions with the Quality Function Deployment (QFD) methodology. This study uses the latest website quality measurement method, WebQual 4.0 developed by Barnes and Vidgen (2002). WebQual 4.0 is the result of the development of the first to third versions of WebQual and is divided into three main indicators, namely: usability, information quality and service interaction quality.

In WebQual 4.0, usability indicators are related to website design, such as appearance, ease of use, navigation and also the appearance that is conveyed on the website. Usability focuses on the view of how users view and interact with the website: is it easy to navigate, which the design appropriate for



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the type of website. Then the information quality indicator is the quality of the website content, namely the suitability of information for its users such as format, level of accuracy and relevance. Finally, an indicator of the quality of interaction services which is what website users experience, manifested in the form of trust and empathy, for example regarding transactions and information security, product delivery, personalization and communication with website owners or managers.

### **Customer Satisfaction**

According to Zeithaml and Gremler (2013) satisfaction is the response or responses of consumer's fulfilment needs. Satisfaction is an assessment of the characteristics or features of a product or service, or the product itself, which provides a level of consumer pleasure related to meeting consumer consumption needs. Tandon et al (2017) in their research explained that customer satisfaction is an important factor in being able to understand how to meet customer needs and wants.

Customer satisfaction is related to the feeling of pleasure or disappointment of someone who appears after the performance (result) of the product that is thought about the expected performance (or result). If the performance is below expectations then the customer is not satisfied. If the performance meets expectations, the customer is satisfied. If performance exceeds expectations, the customer is very satisfied or happy (Kotler & Keller, 2012).

Meanwhile, Tse and Wilton in Tjiptono and Chandra (2015) state that customer satisfaction is a customer response to a perception evaluation of the difference between initial expectations before purchase (or other performance standards) and the actual performance of the product as perceived after using or consuming the product.

### **Repurchase Intention**

Repurchase Intention is a purchase made by someone more than once or several times (Peter & Olsen, 2010). A consumer who is satisfied with the purchase of a product or service will encourage him to repurchase and make him loyal to the product so that consumers will tell good things to others.

According to Schiffman and Wisenblit (2013) repurchase behaviour is closely related to the concept of brand loyalty, where most companies support it because it has a great contribution to good stability in the marketplace. According to Boulding et al (1993), someone who has an interest in repurchasing or repeated purchases will recommend the product or service by word of mouth and has a behavioural tendency to make additional purchases at the same place or source.

### **Relationship Website Quality to customer satisfaction**

The characteristics and values of a website in E-Commerce transactions are important driving factors for customer satisfaction with the website (Bansal et al., 2004). Website quality is related to how well the design of a website can meet customer satisfaction (Sreedhar, 2016). Quality on a website is considered as the overall quality of online shopping site service based on the customer's point of view, so that by evaluating the website, companies selling online can find out which aspects of the website are the most preferred by consumers and this will lead to online consumer satisfaction (Shin et al., 2013).

There is a significant influence between the quality of the website and online customer satisfaction (Li & Jiao, 2008; Gounaris et al., 2010; Udo et al., 2010). Based on the results of research conducted by Al-Manasra et al (2013); Tandon et al (2017) and Jauhari et al (2019) provide results that the quality of a website has a significant influence on the level of customer satisfaction. This shows that the quality of a website in electronic commerce transactions (E-Commerce) can create E-Commerce customer satisfaction. The proposed hypothesis:

Hypothesis 1 (H1): Website quality has a direct effect on customer satisfaction in Shopee E-Commerce.



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### **Relationship Website Quality to repurchase intention**

Website quality can influence consumer repurchase intention in a product or service. Bai et al (2008) states that the quality of the website on the usability features and functions of the website will encourage repurchase intention of online consumer. Usage factors, subjective norms and benefits have a positive impact on buying interest in online social media (Chen et al., 2012). Furthermore, Shin et al (2013) in their research concluded that website quality is an important factor in increasing repurchase intention from the customer's perspective. Purchase intention can directly affect revenue and profitability in a company (Hsu et al., 2012). The proposed hypothesis:

Hypothesis 2 (H2): Website quality has a direct effect on customer repurchase intention in Shopee E-Commerce.

### **Relationship Customer Satisfaction to repurchase intention**

Customer satisfaction is one of the main factors that can influence a person's interest in repurchasing. Zhang et al (2011) suggested that a positive customer experience will create satisfaction that is directly related to repurchase intention. Research conducted by Zhou et al (2009) and Prayogo and Sutisna (2017) states that online consumer satisfaction has a direct effect on repurchase intention. Consumers who are satisfied with a product or service will repurchase the same product or service (Yulisetiari, 2013). Furthermore, consumers who are satisfied with a product or service will direct to make repurchases based on their experiences (Tjiptono & Chandra, 2015). The proposed hypothesis:

Hypothesis 3 (H3): Customer satisfaction has a direct effect on customer repurchase intention in Shopee E-Commerce.

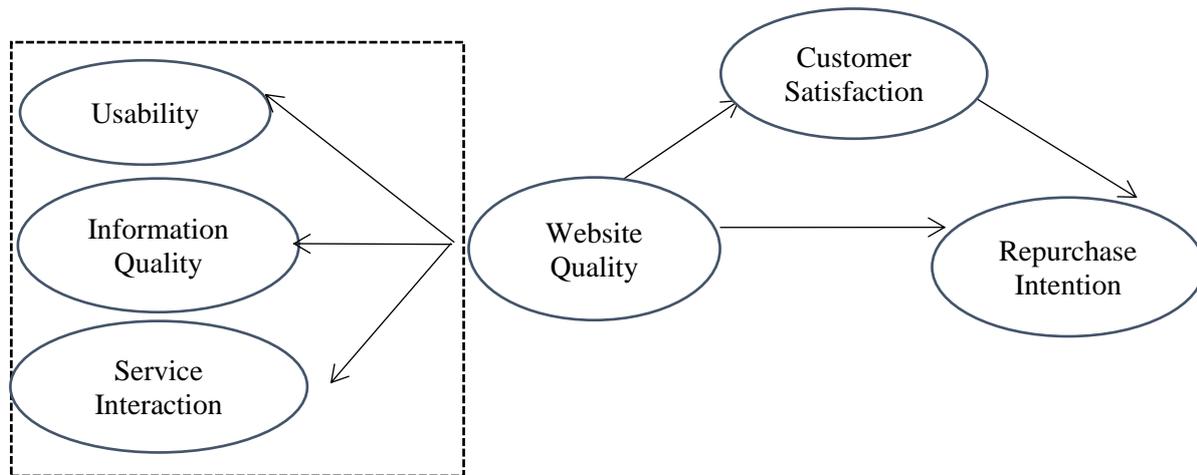
### **Relationship Website Quality, Customer Satisfaction and Repurchase intention**

The service quality dimension has a significant impact on customer satisfaction and consumer repurchase intentions in the future. According to Zhou et al (2009) the design of a website has an important role in influencing online buyer satisfaction which will lead them to make repurchases. Based on the results of research conducted by Lee and Lin (2005) and Kuo et al (2009) found that the quality of electronic services reflected in the quality of the website affects customer satisfaction which in turn will affect consumer interest in making repurchases. Furthermore, service quality also has an indirect positive effect on repurchase intention through customer satisfaction. Gounaris et al (2010) proved that electronic customer satisfaction mediates the effect of electronic service quality on repurchase intentions. Udo et al (2010), in a study at the United States, found that the indirect effect of website service quality on repurchase intentions through customer satisfaction was greater than the direct effect of website service quality on repurchase intentions. Shin et al (2013) emphasized that the quality of a website can affect repurchase intentions by increasing customer satisfaction in online transactions. The proposed hypothesis:

Hypothesis 4 (H4): Website quality has an indirect effect through customer satisfaction with repurchase intention in Shopee E-Commerce.

### **Conceptual Framework**

Based on literature review and the hypotheses in this research, the following is presented a conceptual framework in this study which can be seen in Figure 1 as follows:



**Figure 1 Conceptual Framework**

Based on Figure 1, the Website Quality variable is an exogenous independent variable (X1) which consists of 3 (three) dimensions, which are the utility dimension, the information quality dimension and the service interaction dimension. While the customer satisfaction variable as an intervening variable (Y1) and the Repurchase Intention variable as the dependent variable or endogenous variable (Y2). Where based on literature review and previous research, website quality can have a direct effect on customer satisfaction and indirectly affect repurchase intention through customer satisfaction as the mediating variable.

### 3. RESEARCH METHODOLOGY

#### Research Design

This research used a quantitative research with an experimental research design to see the causal relationship between the variables will be examined, which is the effect of website quality on customer satisfaction and customer repurchase intention in shopee E-commerce. The analyzed unit in this study is the quality of the website on the shopee E-commerce. The observation unit is a consumer who has purchased a product on the shopee e-commerce. The research was conducted in Palembang City, South Sumatra. There are 3 (three) variables in this study, which are the website quality variable as the independent variable or the exogenous variable (X1), the customer satisfaction variable as an intervening variable or the mediating variable (Y1) and the repurchase intention variable as the dependent variable or endogenous variable (Y2). The website quality measurement uses the Webqual 4.0 method developed by Barnes and Vidgen and divided into three main dimensions, namely: the usability dimension (UB), the information quality dimension (IQ) and the interaction service quality (SIQ) dimension which is measured based on the perceptions of website users. The indicator used in this study as 26 indicators. This study uses primary data through distributing questionnaires with a Likert measurement scale of 1 to 5 which is divided into 5 categories, namely: (1) Strongly Disagree with a weight of 1, (2) Disagree with a weight of 2, (3) Neutral with a weighted value 3, (4) Agree with a weighted value of 4 and (5) Strongly agree with a weighted value of 5. Questionnaires were distributed online via google form.

#### Population and Sample

The population in this study are consumers in the city of Palembang who have purchased products online at shopee e-commerce. The Sampling taken by using non-probability sampling technique, namely purposive sampling where the sample selection is based on several criteria, namely: (1) Consumers who have purchased online products at shopee e-commerce (2) Have purchased products on shopee e-commerce at least more than 3 times during the last 6 months and (3) over the age of 18 years. The samples used in this study was 200 respondents, this number has met the minimum sample requirements in research that uses the Structural Equation Model (SEM) analysis technique, which is



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at least 5 times the number of indicator variables used (Ferdinand, 2014). Which if the number of indicators used is 26 indicators; the minimum number of respondents is 130 respondents.

### Analysis Techniques

The analysis technique used in this research consists of descriptive analysis to see the characteristics of the respondents using frequency distribution tables and quantitative analysis to test the hypothesis using the Structural Equation Model (SEM) method which is operated through the Analysis of Moment Structure (AMOS) program. The research instrument test in the form of a questionnaire was conducted using validity and reliability tests on each item of the statement in the questionnaire. The development of the model in this study uses the Second-order confirmatory factor (SOCF) technique, which is a two-level measurement model, while the estimation method used is the Maximum Likelihood Estimation (ML). Evaluation of the criteria for goodness of fit is carried out by fulfilling several assumptions, namely:

1. Sample Size, which in a study using SEM analysis requires at least 5 times the number of indicator variables used (Ferdinand, 2014).
2. The normality and linearity test, where in SEM analysis, the data called Normal distribution univariate when the value of c.r. is in the range  $-2.58 \leq c.r. \leq 2.58$ , then the data called have a Multivariate Normal distribution when  $c.r. \leq 2.58$  (Santoso, 2012).
3. Outliers test, the observations appear with extreme values both univariate and multivariate, namely those that arise because of the unique combination of characteristics it has and look very much different from other observations (Ferdinand, 2014).
4. Multicollinearity and Singularity Test, to see whether there is multicollinearity or singularity in a combination of variables, researchers need to observe the determinants of the covariance matrix. Determinants that are really small or close to zero indicate multicollinearity or singularity (Tabachnick & Fidell, 2007) so that the data cannot be used for the analysis being carried out.
5. Goodness of Fit Model Test, where after the SEM assumptions are met, it is necessary to test the goodness of fit. According to Ferdinand (2014), researchers are expected to carry out tests using several fit indices to measure the "truth" of the proposed model.

The fit of the model (goodness of fit) is carried out by using 3 fit measures, namely: (1) The suitability of the measurement model, which consists of measuring construct validity and construct reliability. (2) The fit of the structural model by looking at the P-Value  $< \alpha$  where  $\alpha = 5\%$  and (3) the fit of the overall model by looking at the goodness of fit index (Hair et al., 2010).

This study uses an intervening variable as a variable that mediates the effect of website quality on repurchase intention through customer satisfaction. Testing of the mediating variables is carried out using the Z test of sobel or known as the sobel test (Ferdinand, 2014). As with the other hypothesis testing, the hypothesis is accepted if this calculation results in a Z value  $> t$  table with a significance level of  $< 0.05$ .

## 4. RESULTS AND DISCUSSIONS

### Characteristics of Respondents

In this study consist of 200 respondents which the consumers who had shopped online at shopee e-commerce for the last 6 (six) months. The total of 200 respondents 78.7% were women and 21.3% were men. The majority of respondents were 18-20 years old with a percentage of 46.9%, while the remaining 22.2% were 21-30 years old, 28% were 31-40 years old and the remaining 2.9% were 41-50 years old. Judging from the type of work, the majority of respondents in this study were students at 50.2%, while the remaining 25.1% were government employees (PNS / BUMN / BUMD), 8.7% were private employees, 8.2% were private employees, 5.8% are housewives and 1.9% are self-employed. Judging from the frequency of customer visits to the shopee e-commerce website, 58.5% visited the website with an uncertain frequency or depending on needs, while the remaining 21.7% visited the website daily, 16.9% weekly and 2.9% monthly. The majority of 61.4% of respondents visited the shopee e-commerce website with a period of less than 1 (one) hour, 36.2% visited the website for 1 -



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3 hours, while the remaining 2.4% made visits 4- 6 hours . When viewed from the respondent's knowledge in using information technology, as many as 48.8% of respondents claimed to have good knowledge of information technology, while the remaining 34.8% had a fairly good knowledge of information technology and 15.9% had very good knowledge. From the characteristics of respondents, it can be seen that the average respondent is consumers aged 18-20 years who have good knowledge of the use of information technology and have shopped on the shopee e-commerce website in the last 6 months with the majority visiting less than 1 hour and accessing the website shopee e-commerce as needed.

### SEM Assumption Test

In a SEM modelling there are several assumptions that must be met, including:

#### 1. Sample Size

The numbers of samples used in this study were 200 samples. The number of samples has met the minimum sample requirements in research that uses the Structural Equation Model (SEM) analysis technique, which is at least 5 times the number of indicator variables used (Ferdinand, 2014).

#### 2. Evaluation of Data Normality

These following are the results of univariate and multivariate normality in structural models carried out using AMOS software as shown in Table 1 below:

**Table 1 result of univariate and multivariate normality**

Variable	min	max	skew	c.r.	kurtosis	c.r.
RI4	1.000	5.000	-.670	-1.868	.244	.704
RI3	1.000	5.000	-.451	-1.603	-.291	-.841
RI2	1.000	5.000	-.736	-1.248	-.047	-.135
RI1	1.000	5.000	-.282	-1.400	.655	1.665
CS4	2.000	5.000	-.145	-.840	-.682	-1.968
CS3	2.000	5.000	-.407	-2.350	-.076	-.220
CS2	1.000	5.000	-.709	-1.248	.764	1.092
CS1	1.000	5.000	-.889	-1.442	.924	1.442
SIQ5	2.000	5.000	-.186	-1.074	-.971	-1.803
SIQ4	2.000	5.000	-.377	-2.175	-.746	-1.153
SIQ3	1.000	5.000	-.534	-1.084	-.139	-.401
SIQ2	2.000	5.000	-.644	-1.717	-.224	-.646
SIQ1	1.000	5.000	-.877	-1.064	.918	1.403
IQ7	1.000	5.000	-.560	-1.234	.897	1.590
IQ6	1.000	5.000	-.481	-1.776	.580	1.674
IQ5	3.000	5.000	-.289	-1.670	-.659	-1.901
IQ4	2.000	5.000	-.343	-1.979	-.066	-.192
IQ3	2.000	5.000	-.440	-1.542	-.320	-.925
IQ2	2.000	5.000	-.125	-.722	-.837	-1.417
IQ1	2.000	5.000	-.106	-.609	-.467	-1.347
UB6	1.000	5.000	-.660	-1.809	.886	1.559
UB5	1.000	5.000	-.819	-1.461	.850	1.208
UB4	2.000	5.000	-.685	-1.952	-.078	-.225
UB3	2.000	5.000	-.686	-1.961	-.120	-.348
UB2	3.000	5.000	-.773	-1.466	-.405	-1.169
UB1	3.000	5.000	-.670	-1.867	-.509	-1.469
Multivariate					9.087	1.684

Source : Output AMOS

Based on the Table 1 above, it is known that all c.r. univariate is in the range -2.58 to 2.58. So it can be concluded that all data are normally univariate distribution. The value of c.r. multivariate is 1.684 less than 2.580, so it can be concluded that all data are normally distributed multivariate.



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### 3. Evaluation of Outliers

The evaluation of outliers is divided into two, namely:

#### a. Univariate Outliers

On the basis that cases or observations that have a Z score  $\geq 3.0$  will be categorized as outliers. Based on the results output (attached), it can be seen that the data used in this study are free from univariate outliers, because there is no Z-score variable above the number 3.0.

#### b. Multivariate Outlier

A data include multivariate outliers if the p1 and p2 values are less than 0.05 (Santoso, 2015). Based on the output results (attached), no data were detected as multivariate outliers. Thus, the next process is carried out, namely the SEM model estimation using the maximum likelihood (ML) method.

### 4. Evaluation of Multicollinearity and Singularity

To see the multicollinearity cases, observations were made from the results of the detective output from the sample covariance matrix as below:

Condition number = 126.324

Eigenvalues

6.386 1.033 .697 .564 .523 .480 .380 .340 .301 .277 .254 .230 .201 .193 .177 .169 .153 .142 .131  
.120 .111 .099 .091 .080 .074 .051

Determinant of sample covariance matrix = 3.400

Sumber : Output Amos

The determinant value of the small sample covariance matrix indicates a multicollinearity case. From the results of the AMOS output, the Determinant of sample covariance matrix value is 3,400, that show a value that is not close to zero. This indicates that there are no cases of multicollinearity in the observational data.

### 5. Goodness of Fit Model Test

After the SEM assumptions are fulfilled, it is necessary to test the goodness of fit. Hair et al (2010) evaluate the fit of the model (goodness of fit) with three fit measures, namely the fit of the measurement model, the fit of the structural model and the suitability of the overall model, which is described in the model test below.

## Model Test or Model Measurement

### Fit of measurement model

The development of the model in this study uses the Second-order confirmatory factor (SOCF) technique, which is a two-level measurement model, while the estimation method used is the Maximum Likelihood Estimation (ML). In evaluating the fit of the model (goodness of fit) is carried out using three measures of fit, namely the fit of the measurement model, the fit of the structural model and the fit of the overall model (Hair et al., 2010).

#### 1. Fit the measurement model

In evaluating the suitability of the measurement model, it is seen from two measures, namely construct validity and construct reliability. In measuring construct validity, the indicators of a study are said to be significant if the probability or p-value is  $<0.05$  and the Standardized factor loading value is said to be valid if  $\text{Standardized factor loading} > 0,50$ . Meanwhile, in measuring construct reliability, an indicator is said to be reliable if the value of Construct Reliability (CR)  $> 0.7$ . The results of the validity and reliability of the construct can be seen in Table 2 below:



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**Table 2 Results of Construct Validity and Reliability Tests**

Research Variable	Indicator	Standardized Loading Factor	P-Value	CR-Value
Website Quality (X1)	UB1	0.714	***	0.939
	UB2	0.638	***	
	UB3	0.647	***	
	UB4	0.654	***	
	UB5	0.561	***	
	UB6	0.613	***	
	IQ1	0.648	***	
	IQ2	0.707	***	
	IQ3	0.659	***	
	IQ4	0.718	***	
	IQ5	0.757	***	
	IQ6	0.774	***	
	IQ7	0.789	***	
	SIQ1	0.654	***	
	SIQ2	0.690	***	
	SIQ3	0.669	***	
SIQ4	0.649	***		
SIQ5	0.675	***		
Customer Satisfaction (Y1)	CS1	0.824	***	0.841
	CS2	0.815	***	
	CS3	0.764	***	
	CS4	0.601	***	
Repurchase Intention (Y2)	RI1	0.783	***	0.888
	RI2	0.790	***	
	RI3	0.837	***	
	RI4	0.849	***	

Source : Ouput Amos

Based on the Table 2 above, all p-values are less than 0.05 and all standardized loading factor values are greater than 0.50, so it can be concluded that all measurement models are valid. Meanwhile, the results of the CR value show that all CR values are greater than 0.70, so it can be concluded that the SEM measurement model is reliable.

### 2. The fit of the structural model

In conducting the fit test the structural model is seen based on the regression weight values as shown in the Table 3 below:

**Table 3 Structural Models Fit Test Results**

Parameter		Estimate	S.E.	C.R.	P
Customer_Satisfaction	<--- Website_Quality	0,490	0,040	12,164	< 0.001*
Usability	<--- Website_Quality	0,428	0,037	11,445	< 0.001*
Information_Quality	<--- Website_Quality	0,450	0,045	10,077	< 0.001*
Service_Interaction_Quality	<--- Website_Quality	0,423	0,042	10,190	< 0.001*
Repurchase_Intention	<--- Website_Quality	-0,090	0,089	-1,011	0,312
Repurchase_Intention	<--- Customer_Satisfaction	0,984	0,181	5,437	< 0.001*

Source : Output AMOS

In the Regression Weights output, the construct is considered to have a significant effect when a p-value is less than 0.05. Based on Table 3 above, the following results are obtained:

1. In the Second order confirmatory factor (SOCF), the test gets significant results on the dimensions that measure website quality consisting of Usability (UB), Information Quality (IQ), and Service Interaction Quality (SIQ), respectively 0.428, 0.450, and 0.423. From this SOCF loading value, the most dominant dimension in measuring Website Quality is the Information Quality (IQ) of 0.450.
2. Obtained a significant effect of Website Quality on Customer Satisfaction of 0.490.
3. Obtained no significant effect Website Quality on Repurchase Intention of -0.090
4. Obtained a significant effect of Customer Satisfaction on Repurchase Intention of 0.984.

3. Overall of Model Fit Size

The fit test of the whole model is presented in table 4 below:

**Table 4 Overall Model Summary**

Match Size	Result	Model Requirements	Testing Decision
Chi-Square or CMIN	334,089	good fit if CMIN < Chi-Square table with $\alpha = 5\%$ and DF = 296 so Chi-Square table = 337.125	good fit
Significance Probability of CMIN (p-value)	0,063	good fit if P-value $\geq \alpha$ with $\alpha = 5\%$	good fit
CMIN/DF	1,127	good fit if CMIN/DF < 2,00	good fit
RMR	0,026	RMR < 0,05 is good fit	good fit
GFI	0,847	GFI close to 1 is good fit Empirically: GFI $\geq 0,90$ is good fit $0,80 \leq \text{GFI} \leq 0,90$ is marginal fit	marginal fit
AGFI	0,804	AGFI close to 1 good fit empirically: AGFI $\geq 0,90$ is good fit $0,80 \leq \text{AGFI} \leq 0,90$ is marginal fit	marginal fit
NFI	0,870	NFI > 0,90 is good fit $0,80 \leq \text{NFI} \leq 0,90$ is marginal fit	marginal fit
RFI	0,846	RFI > 0,90 is good fit $0,80 \leq \text{RFI} \leq 0,90$ is marginal fit	marginal fit
IFI	0,936	IFI > 0,90 is good fit $0,80 \leq \text{IFI} \leq 0,90$ is marginal fit	good fit
TLI	0,923	TLI > 0,90 is good fit $0,80 \leq \text{TLI} \leq 0,90$ is marginal fit	good fit
CFI	0,935	CFI > 0,90 is good fit $0,80 \leq \text{CFI} \leq 0,90$ is marginal fit	good fit
RMSEA	0,065	RMSEA < 0,08 is good fit RMSEA < 0,05 is close fit	good fit

Source: Output Amos



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From the results of testing the suitability of the entire model in the Table 4 above, all test results show that the model is good, so it can be concluded that the SEM model is good.

## Hypothesis Testing and Discussion

Hypothesis testing is determined whether the hypothesis is rejected or accepted. A hypothesis can be accepted if the P-value is less than 0.05. The results of hypothesis testing can be seen in the Table 5 and Table 6 below:

**Table 5 Hypothesis Test Results**

Hypotheses	Estimate Value	P-Value	Results Conclusion
Hyphothesis 1	0,490	< 0.001*	Hypothesis Accepted
Hyphothesis 2	-0,090	0.089	Hyphothesis Rejected
Hyphothesis 3	0,984	< 0.001*	Hypothesis Accepted

**Table 6 Test Results for Intervening Variables**

Hypotheses	Influence Relation	Estimate Value	P-Value	Results Conclusion
Hyphothesis 4	Direct	-0,090	0.089	Hypothesis Accepted
	Indirect	0,482	0.000	
	Total Effect	0,392	0.000	

Based on the Table 5 and Table 6 above, a discussion of the results of hypothesis testing can be described as follows:

### 1. Hypothesis Test Results 1

Hypothesis 1 (one) states that the website quality variable has a direct effect on customer satisfaction in shoppe E-commerce. Based on the Table 7 above, the effect of website quality on customer satisfaction has a positive value of 0.490 and a p-value of <0.05, which is equal to 0.0001, thus the website quality variable has a significant direct effect on customer satisfaction. So that Hypothesis 1 (H1) can be accepted.

The results of this hypothesis test indicate that the variable of website service quality is one of the important factors that can affect customer satisfaction in the shopee e-commerce in purchasing online products. The results of this study supported research by Al-Manasra et.al (2013); Tandon et al (2017), Kurniawati et al (2018) and Jauhari et al (2019) which obtained results that the quality of a website has a significant effect for the level of customer satisfaction. This is also confirmed in the research of Shin et al (2013) where in e-commerce transactions the quality of the website is considered as a whole of the quality of online shopping site services based on the customer's point of view, so the companies need to evaluate quality of the website to find out which aspect is the most preferred by consumers which will lead to e-commerce customer satisfaction. In the end, a good website quality will have a significant impact on the success of e-commerce in achieving customer satisfaction. The customer satisfaction is the main key in winning business competition and increasing company profitability (Tjiptono, 2015).

In this study, the measurement of website quality used the Webqual 4.0 method developed by Barnes and Vidgen (2002). The WebQual 4.0 measurement method is the result of the development of the first to third versions of WebQual which is measured based on the perceptions of website users and is divided into three main dimensions, namely: (1) Usability (UB) dimensions related to website design such as the overall appearance of the website, ease of use and navigation, as well as views of how users view and interact with the website. (2) the dimension of Information Quality (IQ) which relates to the information presented on the website, such as the accuracy and relevance of information and the presentation of product information and (3) the dimension of Service Interaction Quality



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(SIQ) relating to matters experienced by website users, manifested in the form of trust and empathy, for example regarding transactions and information security, product delivery, personalization and communication with website owners or managers. From the results of this study, these three dimensions are indicators of the quality of website services that can affect e-commerce customer satisfaction. Consumers can immediately feel the quality of service from the website from the first time they visit the website, starting from the level of use of the website, searching for information on the website and interaction on the website while accessing the website to make product purchases online.

Based on the SEM output of the three dimensions, the most dominant dimension in measuring website quality is the dimension of information quality (IQ). This shows that a good website must be able to present appropriate, accurate, complete, current and trustworthy information related to product sales so as to create customer satisfaction. E-commerce customers consider that the quality of information from a website must be able to provide benefits to customers in their shopping activities on that website. Based on the SEM output of the 7 indicators on the dimensions of information quality, indicators related to the presentation of good and complete information are the most dominant indicators, this means that e-commerce websites must be able to present information in an attractive appearance and format that is easy to understand and presents information. According to the results of research conducted by Cheung et al (2008) that the more complete and accurate the information provided by a website, the higher the benefits that will be obtained by consumers and this will lead to customer satisfaction in shopping online. It is further emphasized in research conducted by Tandon et al (2017) that a good website must be able to provide complete, accurate and easy to understand information so that it can provide convenience for online consumers which will lead to customer satisfaction, besides good quality information. on a website is one way to retain customers in an online retail business.

### 2. Hypothesis Test Results 2

In the hypothesis 2 (two) states that the website quality variable has a direct effect on repurchase intention in shopee E-commerce. Based on the Table 7 above, the effect of website quality on repurchase intention has a negative value of -0.090 and a p-value > 0.05, which is equal, thus the website quality variable does not have a significant direct effect on customer repurchase intention in e-commerce shopee. So that Hypothesis 2 (H2) is rejected.

From the results of the hypothesis test, it shows that the quality of the shopee website service cannot affect the repurchase intention of customers to shop online on the website, means that in this study the better quality of website services provided to customers on the shopee e-commerce site cannot affect the repurchase customer interest. This is different from the results of research by Chen et al (2012) and Shin et al (2013) which state that website quality is important factors in increasing repurchase intention from the customer's perspective.

However, the results of this study support the research conducted by Srivastava (2014) which states that website quality does not have a significant effect on consumer repurchase intention. The results of this study also support the research conducted by Octavia and Tamerlan (2017) where in their research on the online hotel booking site Agoda.com, it shows that the quality of the website does not have a significant effect on online consumer purchase intention. So it can be concluded that the service quality of a website cannot directly influence consumer repurchase intention, this happens because consumers tend to make repurchases if consumers are satisfied and have a good shopping experience while accessing the website. Consumers want to feel the benefits of using the website in carrying out their shopping activities first before deciding to make a purchase again on the website. So that customer satisfaction becomes a mediating factor that can influence consumer



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purchase intention in shopping. Therefore, the variable of website quality does not directly influence consumer repurchase intention, but there are other factors that mediate it first. This is confirmed in research conducted by Udo et al (2010) in a study in the United States, which found that consumers who are satisfied with the quality of website services will tend to repurchase, where consumers need to first feel the benefits and experience of shopping at a website before deciding to make a repurchase.

### 3. Hypothesis Test Results 3

Hypothesis 3 (three) states that the customer satisfaction variable has a direct effect on customer repurchase intention in E-commerce shopee. Based on the Table 7 above, the effect of customer satisfaction on repurchase intention has a positive value of 0.984 and a p-value of  $<0.05$ , which is equal to 0.0001, thus the customer satisfaction variable has a significant direct effect on repurchase intention. So that Hypothesis 3 (H3) can be accepted.

The results of this hypothesis test indicate that the satisfaction variable can influence customer repurchase interest in shopee e-commerce. The results of this study support research conducted by Zhou et al, (2009) and Prayogo and Sutisna (2017) which states that online consumer satisfaction has a direct effect on repurchase intention. Consumers who are satisfied with the services of a product or service will repurchase the same product or service. This is also confirmed in the results of research conducted by Shin et al (2013) that customer satisfaction with the performance of a website will influence it to make repurchases.

Based on the SEM output, the indicator value of the highest customer satisfaction is indicator 1 (one), namely consumers are happy to use the shopee e-commerce website to shop online, while the indicator value of the highest customer repurchase intention is indicator 4 (four) namely the desire of consumers to use the Shopee e-commerce website more often to shop online in the future. This means that the shopee e-commerce website provides an interesting and pleasant experience for consumers in using the website for online shopping activities such as easy navigation, attractive website appearance, complete and accurate information presentation and ease of interaction with website users. The positive experience felt by consumers will ultimately create customer satisfaction and increase consumer interest in making repurchases in the future. Based on research conducted by Zhang et al (2011) a positive customer experience on the performance of a website will create satisfaction that is directly related to repurchase interest. Furthermore, according to Tjiptono and Chandra (2012), consumers who are satisfied with a product or service will direct them to make repurchases based on their experiences.

### 4. Hypothesis Test Results 4

Hypothesis 4 (four) states that website quality has an indirect effect through customer satisfaction on repurchase intention in shopee E-Commerce. Hypothesis 4 (four) is tested for the mediating variable using the sobel test. This test is conducted to determine the significance of the role of the indirect effect of the mediating variable using the Z test. The calculation of the sobel test is calculated by looking at the estimated and SE values in the path coefficient (path analysis). Based on the Table 5 above, it is known that the value of the path A coefficient (the effect of website quality on customer satisfaction) is 0.490 and SE A is 0.040, while the value of the path B coefficient (the effect of customer satisfaction on repurchase intention) is 0.984 and SE B is 0.181, so that the value is obtained. t count (Z) of 4.97 and p-value of 0.0001. If  $\alpha = 5\%$  then t table = 1.96. From these calculations, the Z value  $>$  from the t table and p-value  $<0.05$ , besides that, seen from Table 8 above, it is known that the value of the direct effect of website quality on repurchase intention is -0.090 with a p-value of 0.089 or smaller than the value of the indirect effect of website quality on repurchase intention which is 0.482. Thus, it can be concluded that the website quality



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variable has an indirect effect through customer satisfaction on repurchase intention. So that hypothesis 4 (four) can be accepted.

The results of the hypothesis test above indicate that the customer satisfaction is a variable that mediates the effect of website quality on customer repurchase intention in shopee e-commerce. The results of this study support the research of Kuo et al (2009) and Lee and Lin (2005) which found that the quality of electronic services reflected in the quality of the website can affect customer satisfaction and in turn will affect consumer intention in making repurchases. This happens because the quality of good website service is assessed from a customer's point of view, such as ease of navigation, attractive website appearance, ease of interaction and presentation of complete and accurate information that can provide a positive and pleasant experience for consumers, thereby creating customer satisfaction that will ultimately increase consumer repurchase intention to shop on the website. The results of this study are reinforced by research conducted by Hasanov and Khalid (2015) on the website of healthy food products in Malaysia, which shows that the quality of the website has an indirect effect on purchase intention. Furthermore, research conducted by Gounaris et al (2010) proves that electronic customer satisfaction mediates the effect of electronic service quality on repurchase intention.

### 5. CONCLUSION

The aims of this study to analyze the direct effect of Website Quality on customer satisfaction and repurchase intention. This study also analyzes the indirect effect of website quality on repurchase intention through customer satisfaction as the mediating variable. Based on the results of this study, it shows that Website Quality has a direct and significant effect on customer satisfaction and has an indirect effect on repurchase intention through customer satisfaction as the mediating variable. Meanwhile, website quality variable does not have a direct effect on repurchase intention.

The results of this research should be able to contribute knowledge in the field of marketing management regarding the factors that can affect customer satisfaction in purchasing products online through e-commerce sites. In addition, it can be a consideration for E-commerce businesses to increase customer satisfaction and influence repurchase intention by improving the quality of website services and knowing what are the most dominant factors of website quality that can be the focus for the E-commerce business, to improve e-commerce customer satisfaction and influencing consumer repurchase intention in online shopping on the e-commerce website.

### LIMITATION AND STUDY FORWARD

This study has limitations in terms of time and the object of research which only focuses on the Shopee E-commerce website, besides that the variables used in this study are only limited to 3 (three) variables, namely Website Quality, Customer satisfaction and repurchase intention. Further research should be able to discuss other factors besides website quality variables that can affect e-commerce customer satisfaction and repurchase intention in online shopping and expand the object of research not only on one e-commerce website but comparing several existing e-commerce websites in Indonesia, considering that currently the growth of website-commerce in Indonesia increase.

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### ATTACHMENT

**Table Univariate Outliers  
Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Zscore(UB1)	200	-2.45431	.87357	.0000000	1.00000000
Zscore(UB2)	200	-2.67036	.80894	.0000000	1.00000000
Zscore(UB3)	200	-2.59454	.94593	.0000000	1.00000000
Zscore(UB4)	200	-2.63905	.94799	.0000000	1.00000000
Zscore(UB5)	200	-2.88886	.89677	.0000000	1.00000000
Zscore(UB6)	200	-2.38748	1.15752	.0000000	1.00000000
Zscore(IQ1)	200	-2.79460	1.51583	.0000000	1.00000000



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Zscore(IQ2)	200	-2.81049	1.34294	.0000000	1.00000000
Zscore(IQ3)	200	-2.08268	1.15954	.0000000	1.00000000
Zscore(IQ4)	200	-2.95264	1.35779	.0000000	1.00000000
Zscore(IQ5)	200	-2.04033	1.14768	.0000000	1.00000000
Zscore(IQ6)	200	-2.21792	1.30472	.0000000	1.00000000
Zscore(IQ7)	200	-2.50942	1.22593	.0000000	1.00000000
Zscore(SIQ1)	200	-2.12156	1.03971	.0000000	1.00000000
Zscore(SIQ2)	200	-2.50415	.96923	.0000000	1.00000000
Zscore(SIQ3)	200	-2.68421	1.13175	.0000000	1.00000000
Zscore(SIQ4)	200	-2.82641	1.13585	.0000000	1.00000000
Zscore(SIQ5)	200	-2.77138	1.24511	.0000000	1.00000000
Zscore(CS1)	200	-2.13580	.83606	.0000000	1.00000000
Zscore(CS2)	200	-2.75718	1.02663	.0000000	1.00000000
Zscore(CS3)	200	-2.19186	1.23104	.0000000	1.00000000
Zscore(CS4)	200	-2.02809	1.46861	.0000000	1.00000000
Zscore(RI1)	200	-2.22347	.79782	.0000000	1.00000000
Zscore(RI2)	200	-2.29243	.99738	.0000000	1.00000000
Zscore(RI3)	200	-2.94051	1.11954	.0000000	1.00000000
Zscore(RI4)	200	-2.01671	1.05970	.0000000	1.00000000
Valid N (listwise)	200				

**Table Multivariate Outliers**

Observation number	Mahalanobis d-squared	p1	p2
83	38.815	.051	.051
189	38.723	.052	.052
166	38.719	.052	.052
86	38.718	.052	.052
133	38.652	.053	.053
39	38.043	.060	.060
11	37.315	.070	.060
200	37.315	.070	.060
126	36.683	.080	.060
190	36.253	.087	.067
10	35.599	.099	.069
30	35.438	.102	.072
188	35.098	.110	.070
37	35.089	.110	.070
134	34.638	.120	.070
1	34.623	.120	.070
36	34.609	.120	.070
63	33.470	.149	.079
20	33.448	.149	.079
52	33.407	.151	.081
194	33.407	.151	.081
120	33.370	.152	.082
149	33.301	.154	.084
187	32.963	.163	.093
131	32.838	.167	.097
193	32.354	.182	.092
119	32.316	.183	.093
175	32.237	.185	.095
31	32.099	.190	.090
195	32.094	.190	.090
76	31.797	.200	.090
118	31.558	.208	.098



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Observation number	Mahalanobis d-squared	p1	p2
169	31.030	.227	.097
47	30.951	.230	.090
130	30.883	.233	.093
28	30.804	.236	.096
128	30.063	.265	.095
176	29.199	.302	.091
199	38.815	.151	.081
185	38.723	.152	.082
139	38.719	.152	.082
45	38.718	.152	.082
102	38.652	.153	.083
156	38.043	.160	.070
19	37.315	.170	.070
78	37.315	.170	.070
132	36.683	.180	.070
8	36.253	.187	.077
129	35.599	.199	.079
182	35.438	.102	.072
29	35.098	.110	.070
147	35.089	.110	.070
140	34.638	.120	.070
177	34.623	.120	.070
109	34.609	.120	.070
168	33.470	.149	.079
103	33.448	.149	.079
3	33.407	.151	.081
88	33.407	.151	.081
160	33.370	.152	.082
67	33.301	.154	.084
135	32.963	.163	.093
121	32.838	.167	.097
9	32.354	.182	.092
196	32.316	.183	.093
72	32.237	.185	.095
12	32.099	.190	.090
73	32.094	.190	.090
62	31.797	.100	.090
100	31.558	.208	.098
74	31.030	.227	.097
178	30.951	.230	.090
56	30.883	.233	.093
114	30.804	.236	.096
143	30.063	.265	.095
155	29.199	.302	.111
112	29.198	.302	.108
163	29.169	.303	.106
174	29.142	.305	.104
150	28.584	.330	.123
173	28.547	.332	.118
148	28.290	.344	.131



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Observation number	Mahalanobis d-squared	p1	p2
32	28.275	.345	.123
101	28.172	.350	.124
113	27.937	.362	.137
125	27.821	.367	.140
5	27.392	.389	.104
151	27.302	.394	.103
159	27.260	.396	.089
94	27.165	.401	.089
108	26.560	.433	.285
110	26.560	.433	.239
96	26.544	.434	.204
33	26.477	.437	.193
107	26.255	.449	.253
27	26.105	.457	.283
138	25.721	.479	.455
152	25.059	.516	.787
123	25.010	.518	.769
186	24.858	.527	.799



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## CREATIVE INDUSTRY OF WATER HYACINTH DURING THE PANDEMIC (STUDY ON MICRO AND SMALL ENTERPRISES IN SEMARANG REGENCY, CENTRAL JAVA)

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### Abstract

**Purpose:** This article explores the existing conditions of the creative industry in this crisis period by looking at the conditions before, during the pandemic, as well as the new normality of water hyacinth handicraft small and medium enterprises in Semarang Regency. The creative industry of water hyacinth has the potential to become iconic product in Semarang Regency, in particular and Central Java in general.

**Research Methodology:** With a purposive sampling technique (30 respondents) who had at least a year of experience in an effort to obtain quality information as needed from comprehensive information from the research objectives). Primary data is obtained by making observations and depth interviews to explore situations and conditions in the field. The analysis was carried out by descriptive analysis to see the existing situation in the pandemic era of the creative industry for natural raw materials of water hyacinth.

**Results:** The majority of SMEs in water hyacinth handicrafts in this study were women, the age of the business was 1-5 years, the number of workers was still on a micro scale, and most of them had not entered the cluster. During a pandemic, most of the production amounts to 100-500 items per month with a wide variety of handicraft products. Most of the marketing areas before the pandemic were local in scope, both in Semarang district and on the scale of Central Java. There are still few who are able to penetrate the national and international markets. When a pandemic rocked this industry, most of them experienced low orders and a sluggish market so that the decline was felt by most business actors. The adaptability in times of crisis has not appeared much as well as product innovations that have been made, they are still in a survival condition but do not move quickly to take advantage of digital marketing, this is due to the limited ability to adapt quickly. In the new normality, the determination to maintain the handicraft business is still very high and the desired hope is for capital assistance from the government as well as training assistance for the use of internet literacy for market development and demand is highly expected.

**Limitations:** This study is still limited in scope and number of respondents; the generalization of the research results still requires further research. Comprehensive information from related parties such as the government and related agencies as well as consumers and customers of water hyacinth handicraft products can be considered for future research

**Contribution:** This research proves that SMEs can survive in a crisis situation, but they must be immediately assisted in all aspects by various parties to ensure that their business continuity will be better in the future.

**Keywords:** *SMEs, Iconic Product, Pandemic*

### 1. INTRODUCTION

The pandemic until October 2020 has no signs of ending; the world community is still waiting anxiously and hoping with an uncertain situation so that the pandemic can be resolved soon (Juergensen, Guimon, & Narula, 2020). Safe conditions without the fear of contracting the plague are



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the desires of all inhabitants of this earth (Akpan, Udoh, & Adebisi, 2020). The big impact due to the pandemic has raised multiple aspects in all lines of life, including the economic situation of the global aspects (Ratnasingam, Khoo, Jehathesan, & Wei, 2020). The Indonesian economy has certainly experienced a tremendous impact, in accordance with various policies to reduce the rate of spread of the Corona virus (Soetjipto, 2020). Policies implemented to reduce the spread of the virus of Covid-19 are such as work from home, Large-Scale Social Restrictions (PSBB), isolation of areas, and so on, of course affecting the economic cycle in society. The impact of Covid-19 in Indonesia includes as many as 1.5 million formal and non-formal sector workers who have been dismissed and even terminated, import activities have decreased, there has been inflation or an increase in the prices of goods, to the tourism sector which has experienced a drastic decline (Hadi & Supardi, 2020)

Data from the Ministry of Finance of the Republic of Indonesia in April 2020, the impact of Covid-19 spreads to the manufacturing sector and continues in the small business economic sector. As many as 37,000 Micro, Small and Medium Enterprises (MSMEs) were affected by Covid-19, with details of 56% decline in sales, 22% problems with financing, 15% difficulties in distributing goods, and 4% difficulties in getting raw materials. This condition raises concerns about the emergence of deeper disturbances in the sustainability of MSMEs in various regions in Indonesia. It is a reasonable concern considering the contribution of MSMEs that is not wrong if this concern arises because according to data from the Central Statistics Agency (2020) the contribution of MSMEs to Gross Domestic Product (GDP) in 2018 was 61.41% and in 2019 it was 65%, where this figure shows that the role of MSMEs is the backbone of the Indonesian economy (Thaha, 2020).

The economic condition in Central Java itself has slowed down quite a bit, marked by the economy in 2020 is expected to move below its capacity so that it is lower than 2019. The widespread spread of COVID-19 domestically and globally has a major impact on the economy in Central Java in 2020, which is estimated to grow in the range of 1.4% -2.4%. This estimate is lower than the growth in 2019 of 5.41% (source Lap BI Central Java). On the business field side, the economy of Central Java is still supported by the manufacturing industry; agriculture, forestry and fisheries; and wholesale and retail trade, auto and motorcycle repair. In line with weakening domestic and global demand, demand for industrial products in Central Java is predicted to experience a decline both domestically and abroad. Social restrictions make industry players limit production operating hours. In addition, the decreasing level of demand has prompted the industrial sector to reduce capacity utilization. Source Lap BI Central Java.

Semarang Regency is one of the supporting areas for GDP contribution in Central Java, especially in agriculture, horticulture, natural crafts and tourism. Especially for natural handicrafts, Semarang district has abundant raw materials for water hyacinth. Located around Rawa Pening, this plant is abundant, it can even become weeds around the swamp if it is not used or cleared from the swamp area. Rawa Pening itself is used for various benefits ranging from water supply for hydropower plants, agricultural irrigation for the surrounding community, functioning as a reservoir for flood control, inland fisheries, and providing raw water for the needs of the surrounding community. With the existence of water hyacinth whose growth almost covers most of the water area. The effect is that this very fast growth causes the silting of swamps so that the water supply to the hydropower plant is reduced, sunlight and oxygen are blocked from entering the water body so that there is an imbalance between fish and biota life in swamp waters. The people around Rawa Pening who work as fish catchers have decreased their income due to the many dead fish. Therefore, the cultivation of water hyacinth into natural handicrafts has tremendous potential and is very useful for reducing damage to swamps and improving the economic level of the surrounding community. Since 1997, many people have started to try to use water hyacinth for various handicrafts, and there have been many product innovations and market enthusiasts. However, this pandemic shock poses a serious challenge to how the creative industry survives these times of crisis. This article explores the existing conditions of the creative industry in this crisis period by looking at the conditions before, during the pandemic, as well as the new normality of water hyacinth handicraft MSMEs in Semarang Regency.



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### 2. LITERATURE REVIEW

#### CREATIVE INDUSTRIES: POTENTIAL TO BE A CITY ICONIC

The meaning of the creative industry is the process of creation, creativity, and the ideas of a person or group of people who can produce a work, without exploiting natural resources, and can be used as a productive economic product. Of course, the resulting creativity must be able to open up the jobs needed. Therefore, this industry must be developed, as one of the pillars of the Indonesian economy. A country with a growing creative industry shows that the country has high market innovation and sensitivity and can have an impact on the economy (Gerald, Obianuju, & Chukwunonso, 2020). The development of information and technology globally is able to drive the rise of the creative industry to grow faster. Products of creative industry work with their uniqueness and innovation will give birth to favourable economic prospects for actors and society. The government realizes the great potential of the creative industry by forming a ministry that specifically handles it, namely the Ministry of Cooperatives. Various policy supports were formed to make the creative industry in the country more active and able to empower more workers.

The types of creative industries in the country include 14 types of industries which can be categorized as the creativity produced to grow the economy of the Indonesian people. These include Architecture, Advertising, Film / Photography / Video, Music, Publishing, Arts and Culture Markets, Crafts, Fashion, Design, Interactive Games, Web Design, Performing Arts, Publishing and Printing, and Research and Development. The fourteen types of industry are included in the creative category. These are due to the growth of this industry because of the creativity and ideas they generate (Susilo, 2017).

The benefits of the increasing number of creative industries will certainly contribute to the economy of a country, in line with the number of actors and the absorption of labour, as well as the market opportunities it generates (Larsson & Gustavsson, 2020). The other side is increasing creativity and product innovation that will give a special character to a nation or region. Products such as batik, wayang, crafts from various materials, and craft from various natural sources available in a country with skilled hands will increase the potential for a special uniqueness and iconic.

Government policies related to efforts to increase the role of the creative industry are ([www.kememparekraf.com](http://www.kememparekraf.com)):

#### 1. Integrating Asset and Potential

This first Government policy regarding industry 4.0 is by integrating assets and the potential for developing creativity. Maximizing asset management can be used as a source of capital for this industry. Thus, the potential for creativity can be developed properly. Integrating the assets and the potential for creativity generated by business people, can become an integral part in improving the idea-based industry. Thus, the community will always compete to produce their best creativity.

#### 2. Encouraging Innovation and Creativity

Innovation and creativity in a better form is fully supported by the government by providing capital and providing service facilities to support industry 4.0. Thus, it will further stimulate economic growth, to produce valuable creative ideas.

Creativity and ideas that grow in society must be managed properly. Thus, business competition does not become something that can cause disputes especially for creativity, where an idea is very easy to steal or acknowledge by others.

#### 3. Establishing a Creative Economy Agency

The Creative Economy Agency is an institution formed by the president to facilitate and become a forum for managing creativity that can be managed into ideas. Its existence encourages community creativity in order to continue to produce ideas that can become works. The existence of this institution can bring about better economic growth in the country of Indonesia by creating fresher ideas. Thus, this agency becomes a platform to channel the country's economic growth based on the ideas it has.



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### 4. Regulating and Supporting Community Creativity

Community creativity must always be regulated and supported by the government, so that the economic growth of this industry does not cause disputes between one business actor and another. Protection of copyright is also a form of support from government policy. Creativity is an economic commodity that can be bought and sold. Thus, the need for regulation and support. Given this economic commodity has an intangible form. Therefore, a law on protection of copyright and intellectual rights was formed to regulate this.

Various distinctive products from the creative industry will characterize the region and the nation on the world stage. For example, batik and water hyacinth crafts are examples of typical icons of Indonesian culture on the international stage and are industries developed by the community and including the creative industry (Sholikhah, Puromo, & Abas, 2020). Batik and water hyacinth creative economic development efforts can cover a very large area. Its scope is the textile industry (batik), handicrafts, batik / handicraft education, and cultural tourism. If these fields are broadly developed, the batik culture development sector will contribute significantly to the advancement of Indonesia's creative economy. The development of the batik industry continues to strengthen, in line with greater job opportunities in the batik industry (Kala'lembang, 2020). Moreover, business competition is currently very tight, along with the flood of foreign products after free trade (Nugraheni, Pramudyastuti, & Sunaningsih, 2020)

### CREATIVE INDUSTRY IN MSMEs

Because the definition of the creative industry is the process of creation, creativity, and the ideas of a person or group of people who can produce a work, without exploiting natural resources, and can be used as economic products that produce, the development of MSMEs must have a mindset that is in line with the characteristics of the creative industry. The development of creative industries in MSMEs is very important because they have a big role in economic development, which is proven to contribute quite a lot to GDP and is able to overcome unemployment (Webb, Bruton, Tihanyi, & Ireland, 2013). The strategy of the creative industries of MSMEs can be carried out through: (1) Human Resources as basic capital, (2) industry, (3) technology, (4) Resources, (5) institutions, and (6) financial institutions. Besides that, it is protected by good relationships that support each other and have a symbiotic mutualism between intellectuals, business and government. With this strategy, it is hoped that the industrial products of MSMEs will be able to compete in both national and international markets (RI, 2008).

MSMEs of natural handicrafts, especially water hyacinth, also have potential that must be based on management like a creative industry (Retnawati & Irmawati, 2018). Natural resources are a gift to this nation as a result of the abundance of biodiversity and become the main raw material in the creative industry for crafts made from natural raw materials. The craft industry in this country has bright prospects given the availability of raw materials that nature has provided in this country. It takes creative and innovative hands to process it into products with high aesthetic artistic value and the product safety standards required in global products (Silvatika, 2020). The creative process required here covers many aspects. Efforts to make iconic products are also a challenge for businesses on the scale of MSMEs to maintain business continuity towards an increasingly competitive market and the importance of building differentiation as a unique marker of handicraft products (Retnawati & Irmawati, 2018).

### 3. RESEARCH METHODOLOGY

The research subjects were creative industry actors in the micro and small scale of natural handicrafts, especially water hyacinth in Semarang Regency, Central Java, the location was chosen because the potential of this center is quite good and is a contributor to the economy of the community around Rawa Pening (Praseyaningrum, Sasongko, & Soemardi, 2013). There were 30 respondents in the district of Semarang, especially Rawa Pening, with a purposive



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sampling technique, namely business actors who had at least a year of experience in an effort to obtain quality information as needed from comprehensive information from the research objectives. Primary data is obtained by making observations and depth interviews to explore situations and conditions in the field. The analysis was carried out by descriptive analysis to see the existing situation in the pandemic era of the creative industry for natural raw materials of water hyacinth.

### 4. RESULTS AND DISCUSSIONS

#### Respondent Profile

**Table 1. Respondent Profile**

<b>Gender</b>	<b>Amount</b>
Male	10
Female	20
<b>The Age of Business</b>	
> 10 years	7
1 - 5 years	17
6 - 10 years	6
<b>Number of workers</b>	
>10	2
1 - 5	25
6 - 10	3
<b>Business Cluster</b>	
Yes	7
No	23

Source: Primary Data Analysis (2020)

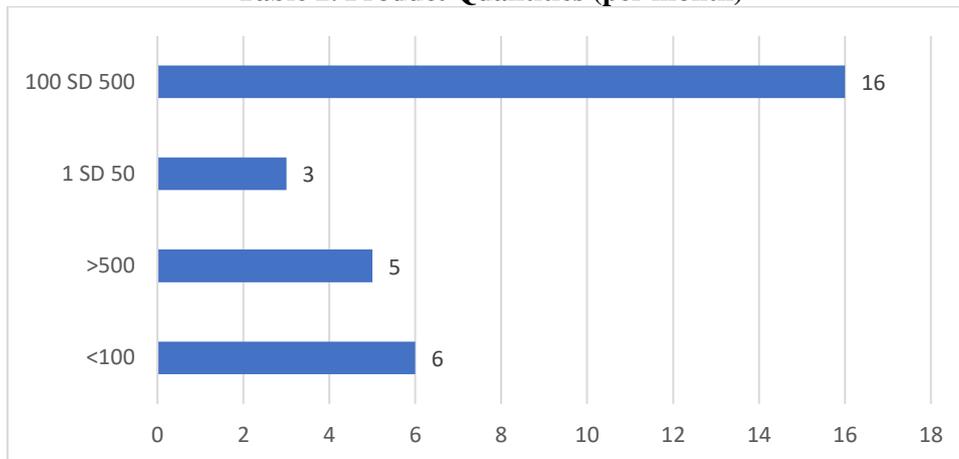
From the respondent profile table, it can be summarized as follows, the majority of water hyacinth handicraft business actors in this study were women, the age of the business was 1-5 years, the number of workers was still on a micro scale, namely 1-5 people, and most of them had not entered the cluster. When viewed from the labor force in each business, most of them are done with their families or with neighbors to fill their spare time. Some of them wanted to join neighbors who became business actors because during the pandemic they faced layoffs from the service or manufacturing sector (factories). Some who have entered the cluster are members of an association with the names Sekar Melati and Klinthing. Most of them are still working independently and are not yet interested in joining the association.

Following are the results of a description of the conditions of the creative industry for water hyacinth SMEs before and during the pandemic and new normal:

#### **Before the Pandemic**

Most produce multiple product item quantities between 100-500 pieces per month. Various product variants are made complete, ranging from tissue holders, pots and flowers, bags, sandals, hats, chairs, tables, fruit baskets, mirror frames, multi-functional boxes, and many more. Seeing the potential of skilled craftsmen, it appears that they have quite good skills. There is a lot of mentoring and training from both the government and campus institutions that support their various innovative works.

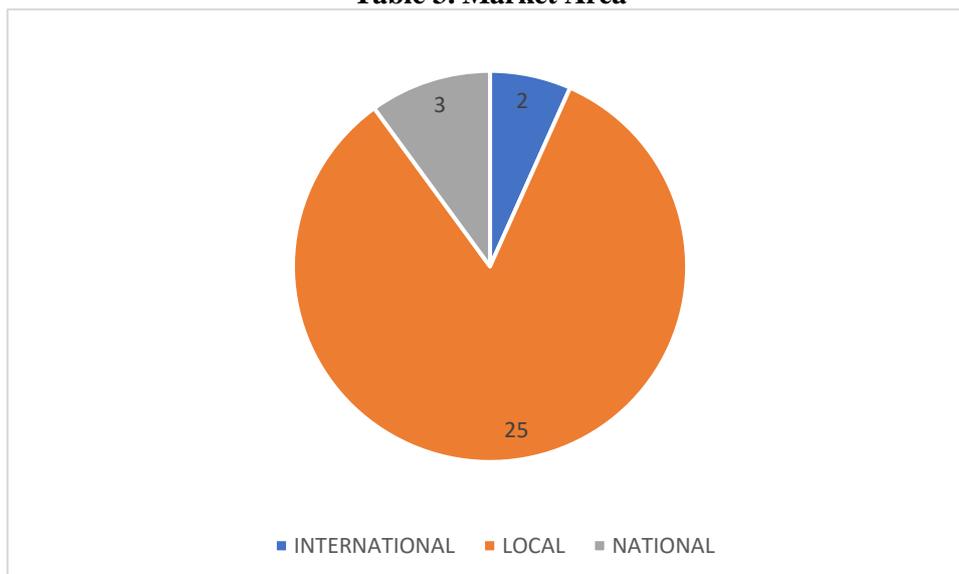
**Table 2. Product Quantities (per month)**



Source: Primary Data Analysis (2020)

Marketing access is still limited to the local market, namely Semarang and the Central Java area. There are still few who can enter the national or even international market.

**Table 3. Market Area**

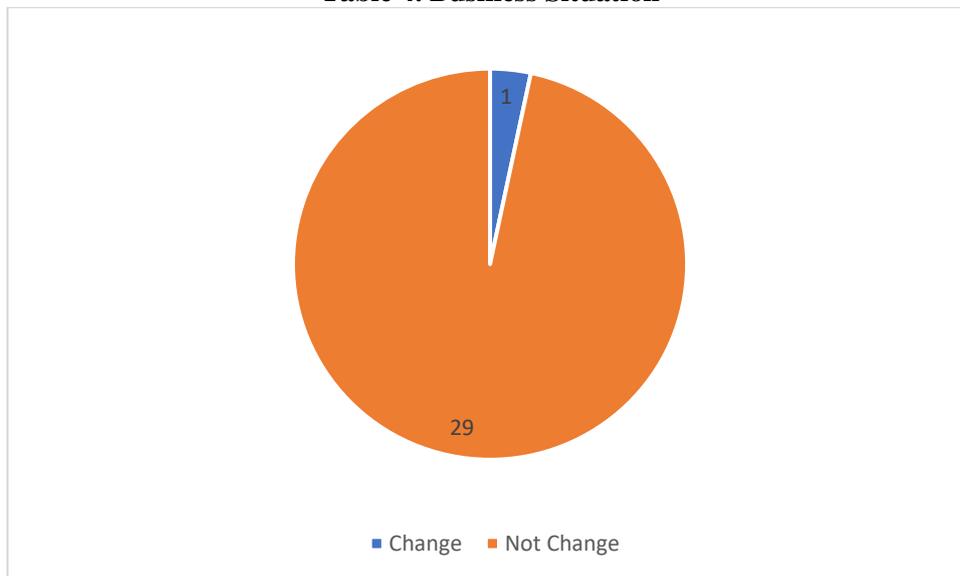


Source: Primary Data Analysis (2020)

As a tourist area around Rawa Pening, Bukit Cinta, PJKA Ambarawa Museum, Saloka and Gedung 9 and the agenda for exhibitions / expos held by various parties also supports local marketing. Those who have successfully entered the national market (Jakarta, Surabaya, Kalimantan) or overseas (several countries in Asia) are assisted by other parties with a reseller model or entrusted to a second party.

## During Pandemic

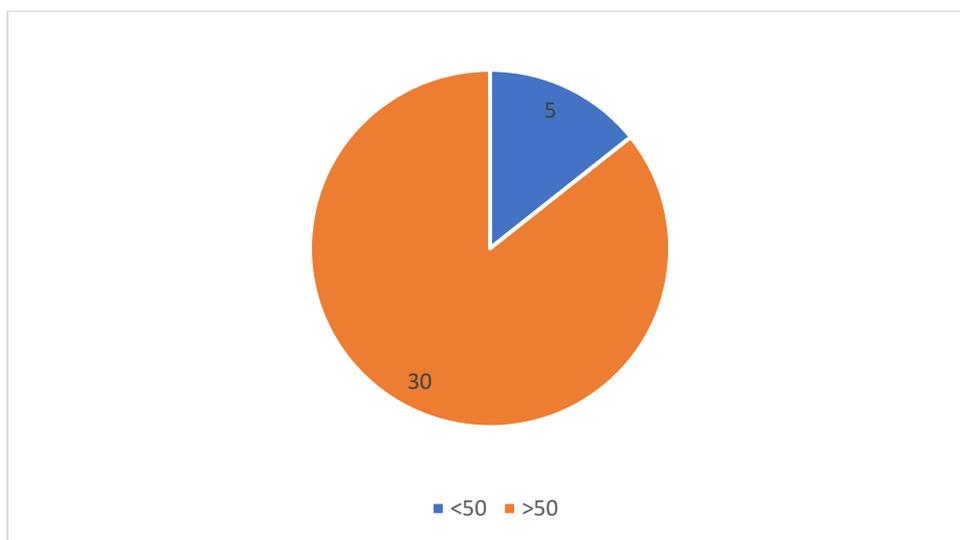
**Table 4. Business Situation**



Source: Primary Data Analysis (2020)

During the pandemic, almost all stated that the business they were engaged in had not changed; only one of them only temporarily changed them and returned to the water hyacinth handicraft business. The situation is dim and marked by decreasing market demand still does not dampen the enthusiasm to remain loyal in this creative industry.

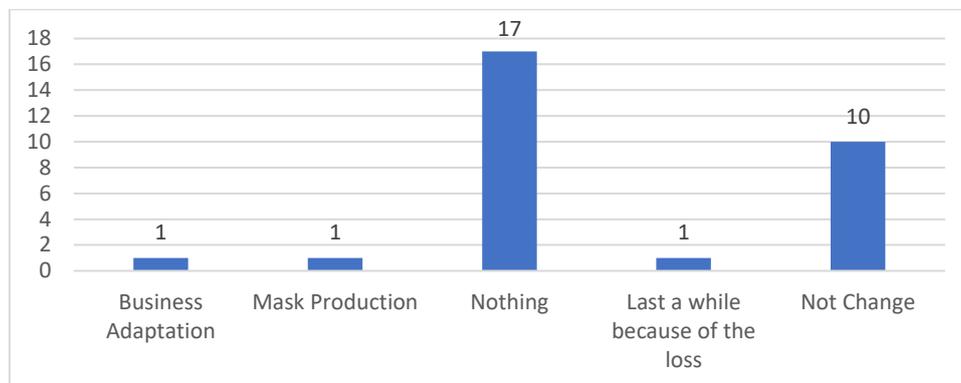
**Table 5. Business Impact (%)**



Source: Primary Data Analysis (2020)

The crisis condition due to the pandemic has hit the water hyacinth handicraft industry badly, the majority of which has decreased by more than 50% from the previous turnover. The impact of limiting the mobility of citizens, the lack of tourist attractions, and the absence of exhibitions that help with marketing is quite a blow to this industry. Market demand has decreased dramatically, the lack of orders, is the reason they reduce the amount of production and the next effect is the decreasing business capital.

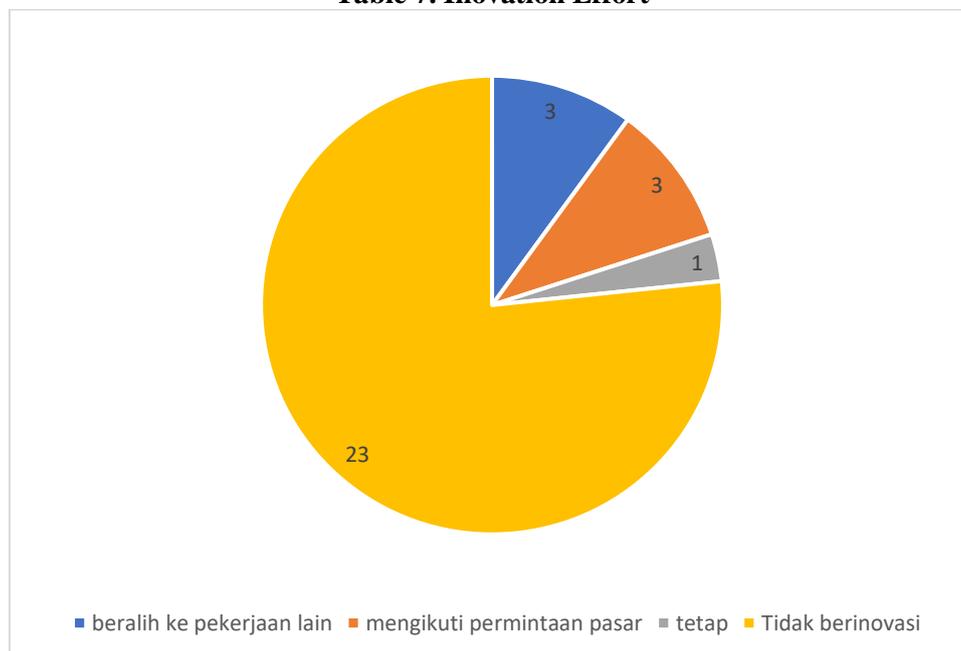
**Table 6. Adaptation Actions**



Source: Primary Data Analysis (2020)

Under these uncertain conditions, especially in the early months of the pandemic (March-May), the water hyacinth handicraft business did not really do much adaptive effort. This is more due to their unpreparedness in facing the shocks caused by the pandemic. There are business actors who try to make masks even though in the end the brands return to processing the water hyacinth that is their daily routine. Most of them did not have any adaptive attempts to move quickly. Although this then decreases the level of passivity that exists, and begins to write with the increasing number of community activities even though there is still quite limited mobility.

**Table 7. Inovation Effort**

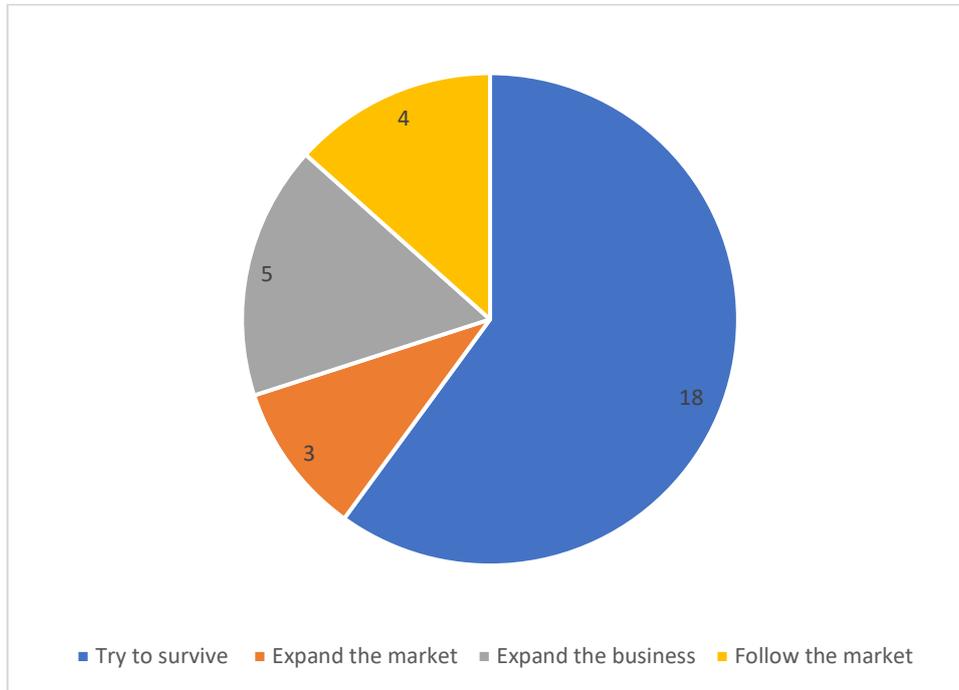


Source: Primary Data Analysis (2020)

When business actors were asked whether there were innovation efforts carried out during this pandemic, most said they did not know what kind of innovation to innovate, the need to market online or with digital platforms did not appear to be their main focus. The spirit to stay afloat in water hyacinth crafts is still there, but it has not been accompanied by the awareness to immediately move and change, especially innovations in how to market and communicate with customers.

## The Age of New Normal

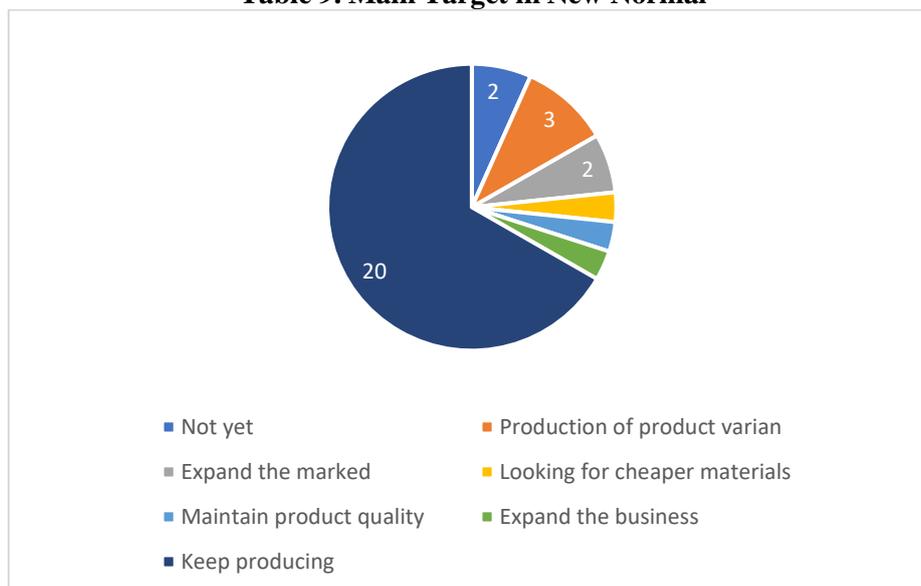
**Table 8. Plan Activities in New Normal**



Source: Primary Data Analysis (2020)

The age of new normal has just become a part of everyday life in our society, including businessmen of water hyacinth. In the new normal, they will continue to work in water hyacinth crafts. Some of them have a desire to expand the market, in the sense of starting to learn digital technology literacy in an effort to open up market access that is wider in scope. There are efforts to expand the business with the desire to add places to sell and begin to be moved to add various product variants that are of interest to the market.

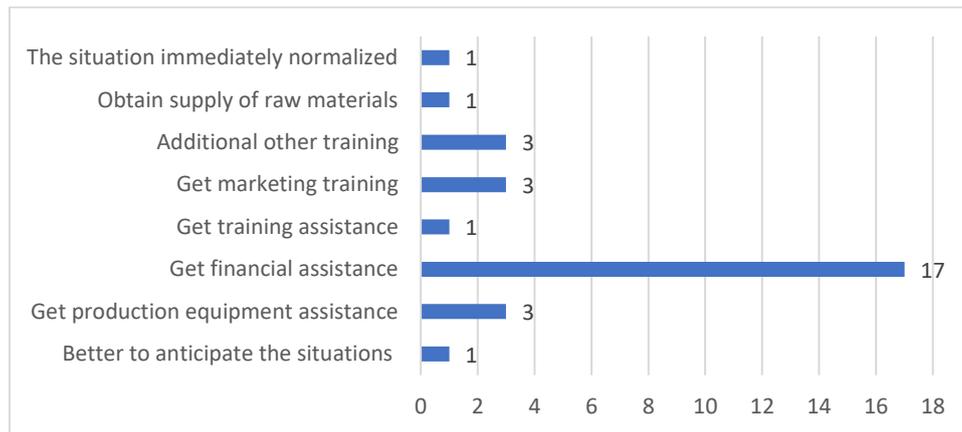
**Table 9. Main Target in New Normal**



Source: Primary Data Analysis (2020)

In the new normality, most will continue to produce, hoping that the demand for handicraft products will be better than during the early days of the pandemic. Only a small proportion of them want to make new products, look for cheaper raw materials, and maintain product quality. It appears in this section that they can be in a condition like before the pandemic, have been grateful and accepted with great joy, considering that the new normal state is not yet completely 'normal'.

**Table 10. The Hope in The New Normal**



Source: Primary Data Analysis (2020)

During the pandemic crisis, most of the actors in the handicraft business only hope that their sector is also taken into account by the government, just like other SMEs, especially culinary, they really hope to get revolving funds to continue their business. Of course, these findings must be cross-checked again with the policy makers whether the funding assistance from the government has not yet reached them. Another thing they want is to get production assistance such as a tool for smoothing water hyacinth midribs, getting trainings that can support their work endeavors (such as digital marketing, creating attractive documentation displays on the platform, etc.). Business assistance with various urgent needs is to be provided to this water hyacinth handicraft business actor.

Some examples of interview results from business actors

Respondent 1

I. Identity

- Name : Rofidah
- Age : 38 years old
- Adress : Tuntang street, Tuntang District, Cikal village
- Business Name : Cikidul
- Business Age : 3 Years

II. Business Conditions Before Pandemic

*'Becoming a Leading Agent for Others During a Pandemic "*

*'Making this village famous for its water hyacinth',* This is the call to vision she uttered when the writer interviewed. She is a craftsman in Cikal Village who wants to process waste or water hyacinth into a product that has a higher selling value. She is Rofidah. Mrs. Rofidah, who is familiarly called by the name Rofidah, started her business by seeing a disturbing natural appearance where the water hyacinth in Rawa pening was increasing but only cleared and thrown away. Even though the water hyacinth is a natural wealth that God has given which deserves more value, so he learned from her teacher, Mr. Slamet Banyubiru. Through Pak Slamet, Mrs. Rofidah learned how to process from weaving water to woven sheets. From the new sheet, Mrs. Rofidah is able to shape it according to her wishes, in the form of a bag, basket or box, pot or flower vase. From



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here began the urge to invite madams to have skills in cultivating water hyacinth. Cikal village is rich in water hyacinth. So there was an impetus on how to do the Cikal Village, the mothers should have skills. She also felt that by becoming a craftsman of water hyacinth, madam would get additional income.

Ibu Rofidah has started this business with a simple tool ala Rofidah, namely a water hyacinth grinder using a flat bread maker for about 3 years. During those 3 years, Mrs. Rofidah also not only developed a water hyacinth business, but she was able to invite and teach several women where she lived. Currently, Mrs. Rofidah is able to work together to make products such as bags, flower pots, vases and boxes. His business was able to get attention so that he dared to market his products in various gift shops and tourist attractions in the city of Semarang. She also often helps produce ordered products that enter the Renita cluster.

Starting from a dream, now it has become a reality. She wants to make a product from "waste" into a product that has a high use value, now that dream can be realized. The income earned by him per week is from 140,000 - 300,000 with a production amount of up to 4-7 pcs per week. She is usually assisted by 10 housewives, who in fact work in their respective homes. Praise God that raw materials are readily available in the backyard and around the neighborhood. Even though Mrs. Rofidah's business has been running and has shown her production results, she still has a problem or difficulty in the production process.

### III. Business Conditions During a Pandemic

The pandemic period certainly has a significant impact on Mrs. Rofidah's business. In fact, Mrs. Rofidah never stopped producing anymore because yesterday had already been made and displayed in shops and in tourist attractions. Due to the pandemic, many tourist attractions have closed and shops have closed. This caused loss to Mrs. Rofidah. However, during this pandemic, Mrs. Rofidah did not just give up, she tried to see how market opportunities could be sold, such as selling cookies during fasting until Eid. She did so with the hope of being able to survive his daily needs. Even though her husband also worked, at that time, her husband was laid off so that the family's economic situation was in a bad state. Moreover, his family did not receive assistance from the government until pre-employment opportunity funds came.

Initially, this pre-employment fund provided an opportunity for Mrs. Rofidah to further improve her family's economy. However, when he passed the selection it turned out that the disbursement process had stalled. She tried to find a way to ask why this happened? She tried starting from improving every existing requirement, starting from creating a training to evaluate it. It turned out that the point of error occurred in the review alone, Mrs. Rofidah did not provide a review so that it did not meet the requirements. She has learned a lot from every experience, especially during this pandemic. She always applied patience and perseverance so that she could survive this life. The joys and sorrows of being a craftsman seemed to have solidified her that it was true that life had to be lived and faced.

### IV. Business Plans in the New Normal

Mrs. Rofidah in this pandemic era, has a strong determination to develop her business going forward. She still has a dream to have a shop in this place and fill in products produced by people in this area. Therefore, she started her business in this new normal era by first depositing finished products in tourist shops that were already open. Bu Rofidah said that in this new normal era, Bu Rofidah received orders to make sample requests in

various shops. She said that starting from May and June she had received various requests, even though it was not completely normal, but this was a bright spot to rise from his adversity. Bu Rofidah included samples in the form of flower vases, boxes and biscuit cans which were processed combined with water hyacinth. Mrs. Rofidah's business still focuses on processing waste into products that have high use value. This is also adjusted to the expectations for the government where Mrs. Rofidah hopes that the government will be able to provide subsidies for production equipment so that Mrs. Rofidah's business can run smoothly and not experience difficulties in the production process.

### V. Documentations



**Respondent 2**

### I. Business Conditions Before the Pandemic

#### *'Enduring Adversity Barriers'*

*"Every problem has a solution"*, said Mrs. Riani. Mrs. Riani is a mother of 3 children who is engaged in a natural handicraft business, not only water hyacinth, but rattan, and other natural materials according to demand. Mrs. Riani has 30 employees who in fact have the skills to make products that are able to answer according to consumer demand. Usually the products made by Mrs. Riani are baskets, dirty clothes baskets, jars, bags and carpets. Mrs. Riani lives at Jln Raya Tuntang Semarang Solo, almost 23 years long Mrs. Riani's business is considered to be in the upper middle category. Business of Mrs. Riani, his marketing area is to go export. Mrs. Riani production for a month reaches up to 500 pcs and gets an average income from her business reaching 3,000,000 - 5,000,000 per month. In her daily life, Mrs. Riani buys raw materials from farmers at a price of 5000 per kg.

Although at first glance, Mrs. Riani is an established businessman and there is nothing that complicates her life. However, behind all this, Mrs. Riani had a problem, namely bank debt until it was disputed until her land would be auctioned off by the bank. When she told her about this, she could only shed tears because Mrs. Riani felt she was being tricked by the bank. It is not that Mrs. Riani does not want to pay her debt, but the debt that should only be 200 million but could increase to 500 million. How helpless he was in facing the problems that stood in her way. She has asked for help from the local government, filed an appeal to the bank. It turned out that in the midst of Mrs. Riani's comfort and smile, she had financial problems. However, this problem did not make her despair because she felt that she had been tricked by the bank, so Mrs. Riani tried to remain calm and continue to focus on production. The challenges that Mrs. Riani faced before the pandemic were debt from this bank and family competition in terms of crafts.

So Mrs. Riani's sister is a reseller of similar products made from waterhyacinth, rattan, wood and glass. Mrs. Riani once competed with her younger sibling to reach customers or buyers. Even though Mrs. Riani had sometimes received unhealthy treatment from her sister, Mrs. Ariani still accepted it.

## II. Business Conditions During a Pandemic

When the pandemic came, the business of Bu Riani had no problems. He felt that he did not experience any problems because he was able to anticipate the steps he had to take. During the pandemic, Mrs. Riani tried to collect water hyacinth from farmers of water hyacinth who had not been able to sell their water hyacinth to collectors. So it can be said that at the beginning of the pandemic, Mrs. Riani became a water hyacinth while continuing to produce. Sometimes she also shares with craftsmen where to place orders, but when the product is finished, the goods are packed and named Mrs. Riani. Mrs. Riani tries to help craftsmen and farmers so that during a pandemic like this, the price for water that is obtained by farmers is the usual price. Even the business of Mrs. Riani received a negative response from the collectors because they were considered eating other people's rations. Regardless of what has been said, Mrs. Riani wants to help the farmers who are always trampled on their pride and never appreciated for their hard work. For me personally, her efforts are truly noble especially in the midst of a pandemic like this.

Products produced by Mrs. Riani is Baskets, Carpets and Bags. Even though Mrs. Riani has noble goals, her efforts are not glancing at the government to provide appreciation or facilities so that her business can grow. In a pandemic like this, the difficulties faced are that there is no support from the government and are entangled in debt with banks.

## III. Business Plans in the New Normal

Mrs. Riani in the new normal era has a way forward, namely to take care of debts that must be paid off. Mrs. Riani, in her future efforts, will always follow the demands that the market wants. Mrs. Riani does not have high targets. The most important thing is that the deal with the bank can be completed and find a bright spot so that Mrs. Riani has nothing to do with the bank.

The hope given to the government is that Mrs. Riani has hopes for the government, "I hope the government can educate small cities including these areas to provide motivation to support so that the regional economy can increase". So that with this business, people here do not develop products outside the region, but regional products are getting more prominent.

## IV. Documentations



Respondent 3

## I. Business Conditions Before the Pandemic

### *'A Process That Bears'*

Mrs. Botok Astuti or familiarly called Mrs. Tuti is a housewife who has 1 child. Mrs. Tuti is also a fostered partner of the Renita Cluster which is held by Mr. Slamet. It is been 2.5 years, Mrs Tuti has been working as a craftsman. Initially he had a business in the field of buying and selling clove handles. However, it was not fortunate that Mrs. Astuti suffered losses, even the losses of up to millions. But all of them Mrs Tuti is on her own, because Mrs. Tuti believes that everything must have a way. *Alhamdulillah*, slowly Mrs. Tuti is



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getting the mushroom business, which until now Mrs. Tuti has also been working to increase income to pay her debts. In life, Mrs. Tuti has had a lot of experiences that she has to give up, starting from the clove handle business and moving to raising ducks and buying and selling fish until she finally returns to being a craftsman. It turned out that being a craftsman also experienced difficulties where sometimes there was a misunderstanding between her and Mr. Slamet, because Mr. Slamet had many channels and connections so he was able to sell products to his customers. This happened when Mrs. Tuti started to leave the products at Mr. Slamet's house and when the goods were sold, Mr. Slamet did not immediately give Mrs. Tuti's share. But sometimes he waited and procrastinated for a long time.

Once the process of being a patient person, this is what I can learn from Mrs. Astuti that she is a patient person in living life. *People who are patient must have a long fortune, said* to me (researcher) when interviewed. During the 2.5 years she succeeded in producing sandals, bags, pots and trash cans and boxes. The marketing area that she is targeting is Bandung. Mrs. Tuti usually produces up to 50 pcs per month and her average income reaches 2 million per month. Usually in the production process, the number of workers used is 2 people. She usually buys raw materials from regular water hyacinth farmers at a price of 4500 per kg.

### II. Pandemic Time

When the pandemic arrived, Mrs. Tuti experienced difficulties with the orders that usually came from Bandung, but really when this pandemic, everything stopped. Moreover, if there are orders, she has difficulty in terms of distribution to Bandung. During this pandemic, he continued to make natural crafts by making pots and sandals only, then they were displayed at Mr. Slamet's place. During this pandemic, Mrs. Tuti turned to the business of buying and selling tea sticks. However, because of the loss, she did not get a profit but instead he got a loss in this business. This loss actually made her in debt. Therefore, he gradually began to get up and pursue a business that brought blessings even though the benefits were small. Her business is buying and selling Oyster Mushrooms. Mrs. Tuti is also a reseller of broiler chickens. In addition, Mrs. Astuti also provides support for her husband who is a fisherman. What he gets while being a fisherman is fish mujaher.

During the pandemic, Mrs. Tuti received assistance from the Family Hope Program or known as PKH, which in fact provided assistance in the form of 75,000 school-related needs and also Mrs. Tuti's family received food packages from the government. In the end, Mrs. Tuti chose to remain a water hyacinth handicraft entrepreneur because Mrs. Tuti felt her feel in this craft so that she felt comfortable with this craft. Moreover, she did not allow her husband to be a fisherman because it was the monsoon season so that the fish would run somewhere and the situation was more dangerous.

The challenge faced by Mrs. Tuti is in the part of capital that must be considered because Mrs. Tuti's capital was depleted when Mrs. Tuti lost the sale and purchase of clove handles and also what is the challenge for Mrs. Tuti is the mentality of being a smart entrepreneur. Because she must learn to be a smart entrepreneur, who is able to read the existing situations and opportunities.

### III. Business Plan in New Normality

In the chat, Mrs. Tuti always said that her efforts in the future were to develop the market so that more of her products could be sold and known in various places. The effort he made was by producing new samples, especially to attract interest. Then encourage cluster friends to continue working. Because a smart entrepreneur is an entrepreneur who can survive even in difficult times. *"a businessman like me guys, is used to experiencing difficulties like this, the important thing is to have the courage to endure and fight, this is part of my process"*, that's what she said when sharing her experiences with researcher.

Her future targets are that she wants to organize what is, she hopes that the existing ones will be developed and those that have not been pursued. She hopes that the government

will be moved to help in terms of marketing and emphasize that residents are willing to buy local work.

#### IV. Documentations



#### 5. CONCLUSION

The majority of business actors in water hyacinth handicrafts in this study were women, the age of the business was 1-5 years, the number of workers was still on a micro scale, namely 1-5 people, and most of them had not entered the cluster. During a pandemic, most of the production amounts to 100-500 items per month with a wide variety of handicraft products such as multi-functional boxes, bags, sandals, and others. Most of the marketing areas before the pandemic were local in scope, both in Semarang district and on the scale of Central Java. There are still few who are able to penetrate the national and international markets. When a pandemic rocked this industry, most of them experienced low orders and a sluggish market so that the decline was felt by most business actors. The adaptability in times of crisis has not appeared much as well as product innovations that have been made, they are still in a survival condition but do not move quickly to take advantage of digital marketing, this is due to the limited ability to adapt quickly. In the new normality, the determination to maintain the handicraft business is still very high and the desired hope is for capital assistance from the government as well as training assistance for the use of IT for market development and demand is highly expected. The enthusiasm and tenacity of business people is still in the new normal, but still leaves problems, namely the ability to move flexibly and increase digital literacy that need to be addressed. Regional support in creating a creative industry atmosphere is needed both from the government, MSMEs companion agencies and the surrounding community to support the fighting power of these creative business actors.

#### LIMITATION AND STUDY FORWARD

This study is still limited in scope and number of respondents, the generalization of the research results still requires further research. Comprehensive information from related parties such as the



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government and related agencies as well as consumers and customers of water hyacinth handicraft products can be an improvement in the weaknesses of this research.

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## INCOME DISTRIBUTION INEQUALITY DUE TO PANDEMIC COVID-19

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### Abstract

**Purpose:** This research aims to analyze The Covid 19 Pandemic 's Effect against the inequality of revenue distribution measured from the Gini index in Kulon Progo Regency in 2020 and estimates until 2024.

**Research Methodology:** The analytical tools used in this research is to use a descriptive approach and trend analysis using the best models. The period used in this analysis is from 2010 to 2020 at the time of the Covid-19 pandemic that is ongoing.

**Results:** The results of the study showed that the Covid-19 had an impact on the increased inequality of income distribution.

**Limitations:** The limitation of this study is that it only measures the impact of the Covid-19 pandemic on income inequality between people. In addition, if income inequality is calculated using the Gini index only, it should be differentiated between population groups.

**Contribution:** The contribution of this research is to use the alternative twelve projection methods using time series data. Research carried out so far only uses one or two approaches in making projections. In addition, the impact of the Covid-19 pandemic, which has not occurred for a year, is analyzed for its impact on the economy, especially income inequality. Kulonprogo Regency is an area that has experienced very high growth due to the construction of an international airport.

**Keywords:** *income inequality, Gini Index, Covid-19, regional economy, Kulonprogo.*

### 1. INTRODUCTION

The World Health Organization (WHO) headquarters in China was informed on 31 December 2019 of cases of diarrhea, of uncertain etiology, found in Hubei province. A new type of coronavirus was detected on January 7, 2020, and new cases in Thailand, Vietnam, Japan and South Korea. On 30 January 2020, the WHO revealed a simultaneous presence of public health (Maciel, Castro-Silva and de Farias, 2020).

The problem in economic development is to improve the welfare of the community in the form of increased income, but the distribution must also be distributed among community groups (Tolmachev *et al.*, 2019). The most crucial thing in ensuring the sustainability of economic growth and socio-economic development is how people become rich, but are not much different from the poor so that the existing inequality is still reasonable (Choi, 2019).

Indonesia's economic disparity has been on the rise, hitting a record peak of 0.41 calculated in the 2011–2014 Gini household consumption spending index. Not just economic aspect, the problem of rising inequality is also socially and politically significant as it can threaten society's stability, particularly in a big, diverse and young democracy ravaged by widespread poverty and vulnerability amid rising expectations (Tadjoeddin *et al.*, 2020).

To lower income inequality, countries worldwide have different modalities and varying degrees of scope in developing social security programs, with their own success stories and shortcomings in implementation (Teka, Temesgen Woldu and Fre, 2019). Social security has gained popularity in recent decades as a way of minimizing and minimizing the risk of drought and earthquakes and maintaining long-term sustainability.



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There have been several studies that the effect of the current Covid-19 outbreak has overwhelmingly impacted neighbourhood-related historically disadvantaged populations, such as the proportion of racial and ethnic minorities, refugees and lower-income households (Maroko, Nash and Pavilonis, 2020). The economic effects of COVID-19 in those countries include high insurance rates, policy deficiencies in pluralistic health services, high out-of-pocket spending, the increased risk of non-communicable disorders, lost growth opportunities and socio-economic consequences such as unemployment and deprivation (Rodela *et al.*, 2020). The COVID-19 pandemic and subsequent food availability challenges have exposed deep gaps in the food supply and delivery network. In stressful situations such as this, customers often exhibit habits intended to minimize the likelihood that they will not be able to afford food or other products at a later date (Power *et al.*, 2020). The disparity, however, was still the same range, that is to say, low impartation. 'COVID-19 does not discriminate, a dangerous myth has repeated, side by side with the increased vulnerability of the most socially and economically deprived (Patel *et al.*, 2020)

To lower income inequality, Countries around the world have various modalities and differing potential for implementing social welfare programs, including their own success stories and implementation limitations (Teka, Temesgen Woldu and Fre, 2019). Social security has gained popularity in recent decades as a way of minimizing and minimizing the risk of drought and earthquakes and maintaining long-term sustainability. The emergence of the COVID-19 pandemic in low- and medium-income countries (LMICs) poses questions regarding the ability of health services in these countries to cope with the epidemic if it begins to propagate. (Lau *et al.*, 2020).

There have been several studies that the effect of the current Covid-19 outbreak has overwhelmingly impacted neighbourhood-related historically disadvantaged populations, Such as percentage of racial and national groups, migrants and households with low incomes (Maroko, Nash and Pavilonis, 2020). The economic effects of COVID-19 in those Countries include high insurance rates, policy shortfalls in pluralist health services , high out-of-pocket spending, increased risk of non-communicable disorders, lost opportunities for growth and socio-economic consequences such as unemployment and deprivation (Rodela *et al.*, 2020). The COVID-19 pandemic and subsequent food availability challenges have exposed deep gaps in the food supply and delivery network. In stressful situations such as this, customers often exhibit habits intended to minimize the likelihood that they will not be able to afford food or other products at a later date (Power *et al.*, 2020). The disparity, however, was still the same range, that is to say, low impartation. 'COVID-19 does not discriminate, has reiterated a risky lie, amid the growing deprivation of the most socially and economically vulnerable (Patel *et al.*, 2020)

Kulon Progo is one of five regencies in the province of Yogyakarta's with the highest economic growth before the Covid-19. The high economic growth triggered by the development of international airports and the development of an airport city. From its economic structure, sector that shapes economic growth in Kulon Progo in 2020, almost all areas experienced a decline in growth, except for the Health Services and Social Activities, Transportation and Warehousing, and Information and Communication sectors. The central government's budget reallocation policy of at least 50% has a significant effect on the economic structure in Kulon Progo Regency. The budget will be a focus on handling the settlement of the Covid-19 pandemic case so that several regional strategic projects have to be postponed or rescheduled.

### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The Gini index is a standard indicator of wealth inequality, e.g. disparities in employment, education and ability (Furman, Kye and Su, 2019). Increases equal income through lower economic growth, biased tax systems are favouring wealthy and well-connected lower levels and social expenditure efficiency, and unfair access to education and public services (Policardo, Sanchez Carrera and Risso, 2019). Comprehensive literature analyzed the relationship between urbanization on the one hand and economic development and income equity on the other (Sulemana *et al.*, 2019).



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The global development cycle reduced income inequality by raising the per capita income. At the beginning of a development cycle, it shows a spike in income inequality followed slowly by a decrease in income inequality (Fawaz and Frey, 2020). The popularity of the Gini index is attributed to its simplicity and ease of analysis thanks to its straightforward graphical association with the Lorenz curve; also, many valuable decompositions by origins and classes, strong inferential properties, as well as initial formulations and extensions proposed later by many researchers have helped to illustrate its applicability in different ways (Giorgi and Gigliarano, 2017) (Banerjee *et al.*, 2020).

To simultaneously overcome the limitation of the Gini index in that it is less sensitive to income distribution inequality and to limit the inter decile ratios that ignore difference during income distribution, an index of inequality is introduced (Sitthiyot and Holasut, 2020). Income is associated with numerous social health determinants, such as education, living conditions and community resources, and whether people can afford health work (Simon *et al.*, 2020).

In the regional climate in which it is present, career precariousness degrades working and living conditions. This precariousness facilitates labor migration to areas with better incomes and working conditions, a scenario that exacerbates inequality and establishes relationships between the middle and the periphery. From this point of view, the central regions or representatives, where the agglomeration powers and the presence of improved returns are greater, are often those with a better quality of life . The economic impact The Covid-19 is expected to be large and will drive millions into poverty, including children poverty. The rate of poverty among children is a vital indicator of wellbeing for children. The child poverty rate, as a metric, shows us how many children at a time live in households with annual earnings or financial services below a defined level considered inadequate to fulfil basic needs (Chaudry and Wimer, 2016). Thus, poverty has a broad and multidimensional perspective so that with this condition of debt, it ultimately results in inequality between low-income and high-income groups, and this is what is called inequality (Robles Aguilar and Sumner, 2020).

This paper assesses the impact of Covid-19 on the inequality of income distribution during the Covid-19 period and estimates until 2024. It predicted that the economic effects would be significant, lowering the economic growth forecast from 5% in 2020 to between 4.2% and -4.7% (Suryahadi, Al Izzati and Suryadarma, 2020). Before the outbreak of Covid-19, this group's healthcare needs also needed more significant consideration, especially concerning drug use, but these issues ignored mainly during this pandemic (Webster *et al.*, 2020). The number of economic activities conducted online also resulted in inequality towards people who are unable to have access to technology (Caldararo and Ph, no date).

Covid-19 also suspended manufacturing operation and study projects instantaneously using in-person methods. It urged researchers to reorganize their programs to resume non-in-person tasks or to explore electronic and remote ways (Liegghio and Caragata, 2020). Poverty reduction has been a core subject for researchers in the social sciences, from economics to banking, management and entrepreneurship. Generally speaking, in recent decades, faster and wider economic growth has helped large numbers of people to move out of poverty, so that severe poverty has dropped to less than 10% of the world's population. Poor urban populations are frequently underestimated, such as those living in informal settlements, and metrics used to quantify basic deprivations do not provide policymakers with the knowledge they need to devise and enact policies to fix urban deprivations.

### 3. RESEARCH METHODOLOGY

The Gini concentration index, also known as the concentration ratio, is probably the most common statistical index used in social sciences to measure concentration when a positive random variable is distributed (Giorgi and Gigliarano, 2017). After dividing along a particular dimension, the Gini index



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measures the integrity of a given class. Better separation increases the simplicity of the splitting pairs. If L is a dataset with j labels of a different type, Gini index defined as (Tangirala, 2020)

$$GR = 1 - \sum f_i [Y_i + Y_i - 1] \dots\dots\dots (1)$$

$F_i$  = proportion (proportion) of profits receivables to I.  $Y_i$  = total sum (percentage) Class to I profits. The GR meaning is zero to zero. When  $GR = 0$ , income inequality is evenly perfect, meaning that everyone receives the same income as the other. The Gini coefficient varies between 0 (case of perfect equality) and 1 (perfect inequality), and it is invariant under scale transformations. It is equal to 0 if all individuals have the same income value, and equal to 1 if all individuals except one have zero income. In contrast, one individual holds the entire income amount (Giorgi and Gigliarano, 2017).

The data used in this research is Gini index series data from 2010 until the year 2019. The data is then projected using eleven projection methods and selected the best models by choosing the best goodness of fit value. The projection method is as follows:

Alternative Forecasting Methods With Time Trends.

$$\text{Linear } Y_t = \beta_0 + \beta_1 T \dots\dots\dots(2)$$

$$\text{Logarithmic } Y_t = \beta_0 + \beta_1 \ln(T) \dots\dots\dots(3)$$

$$\text{Inverse } Y_t = \beta_0 + \beta_1 / T \dots\dots\dots(4)$$

$$\text{Quadratic } Y_t = \beta_0 + \beta_1 T + \beta_2 T^2 \dots\dots\dots(5)$$

$$\text{Cubic } Y_t = \beta_0 + \beta_1 T + \beta_2 T^2 + \beta_3 T^3 \dots\dots\dots(6)$$

$$\text{Compound } Y_t = \beta_0 \beta_1 T \dots\dots\dots(7)$$

$$\text{Power } Y_t = \beta_0 T^{\beta_1} \dots\dots\dots(8)$$

$$S \ Y_t = e (\beta_0 + \beta_1 / T) \dots\dots\dots(9)$$

$$\text{Growth } Y_t = e (\beta_0 + \beta_1 T) \dots\dots\dots(10)$$

$$\text{Exponential } Y_t = \beta_0 e^{\beta_1 T} \dots\dots\dots(11)$$

$$\text{Logistic } Y_t = (1 / u + \beta_0 \beta_1 T) - 1 \dots\dots\dots(12)$$

Note:  $Y_t$  = Variable predicted;  $T$  = Year;  $\ln$  = natural logarithm;  $e$  = number 2.718282;  $u$  = upper bound value (upperbound) used in the logistic regression equation.

The Gini index is the most frequently used of several summary measures of inequality derived from the Lorenz curve, which plots cumulative income shares against cumulative percentage of the population. A hypothetical Lorenz curve following an upward slanting 45' diagonal would indicate perfect equality (the bottom 10% receives 10% of all income, the bottom 50% receives 50%, etc.) . The Gini coefficient is a measure of the degree of deviation from the diagonal, indicating the extent of income inequality. It ranges from 0 (perfect equality) to 1 (perfect inequality).

## 4. RESULTS AND DISCUSSIONS

Kulon Progo in 2020, almost all sectors experienced a decline in growth, except for the Health Services and Social Activities, Transportation and Warehousing, and Information and Communication sectors. The central government's budget reallocation policy of at least 50% has a significant effect on the economic structure in Kulon Progo Regency. The budget will be focused on handling the settlement of the Covid-19 pandemic case so that several regional strategic projects have to be postponed or rescheduled.

The health services sector and social activities, for example, will experience a very significant percentage increase of 218.25% compared to 2019. This is due to the reallocation of the regional budget for health and distribution of social assistance to community groups affected by the Covid-19 pandemic case. The Transportation and Warehousing sector will also increase significantly by 38% because YIA airport has started operating even though it has not fully run normally during the Covid-19 pandemic. The number of passengers who will arrive at YIA Airport will not reach the ideal target due to government policies that limit community mobility and also the implementation of the Covid-



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19 health and safety protocol, especially in semester 1, but it is estimated that by semester 2 YIA airport can operate optimally.

Another sector that will also increase significantly is the information and communication sector. This sector is predicted to increase by 30%. One of the reasons is the use of access to information via the internet due to community activities carried out online. The case of the Covid-19 pandemic has indeed directed people to work and study from home by utilizing internet access. The sector that experienced the highest decline was the construction sector, which was predicted to decline by -20%. The reason is that the construction phase of the YIA airport construction project is almost complete and has entered the finishing stage. The high contribution of this project at the start of its construction was enough to boost the construction sector, so that when this project is completed it will certainly have a lot of impact on the decline in the construction sector.

Meanwhile, the sectors supporting construction growth also experienced a decline such as mining and quarrying which fell -3.61%.

The sector that was also heavily affected by the restrictions on access related to Covid-19 was the provision of accommodation and food and drink, which fell to -4.67%. Apart from that, the sectors with minus growth were real estate at -1.17%, corporate services at -2.79% and other services at -0.65%. The case of the Covid-19 pandemic has indeed contracted all sectors that form economic growth in Kulon Progo Regency so that growth can decrease by 12.69% in 2020 to 0.81% from 13.49% in 2019.

Then 2021 is predicted to be the year of economic recovery after the Covid-19 pandemic. The projection results under the optimistic scenario of 7.10% growth based on the assumption that development, especially physical development, which was previously delayed, can resume operations, so that the construction sector is estimated to grow 15% at the same time the highest. Likewise, in the moderate and pessimistic scenario, construction is also a sector which is estimated to grow 10%. In addition, sectors that are predicted to grow quite significantly are Wholesale and Retail Trade; Repair of Cars and Motorcycles, Transportation and Warehousing, and Provision of Accommodation and Food and Drink. In each scenario, it is projected that the sector will grow 7% -10% based on economic activity returning to normal coupled with the operation of Yogyakarta International Airport (YIA) as a booster for economic activity in Kulon Progo Regency.

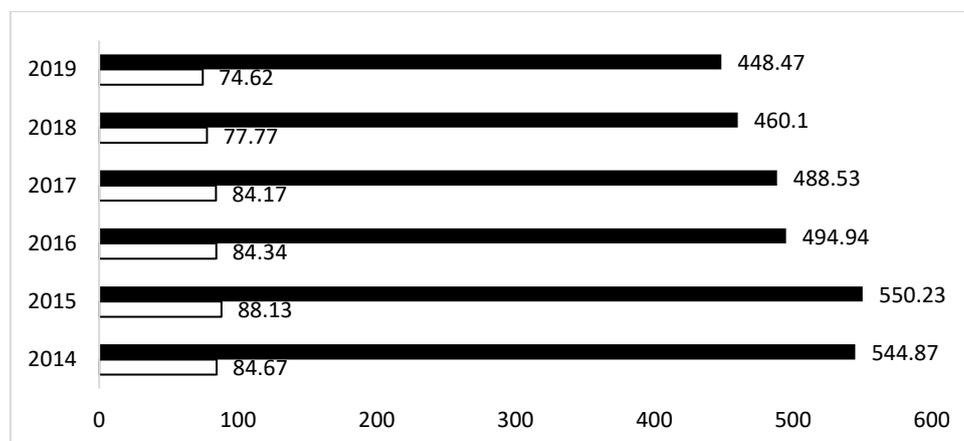
Kulon Progo Regency supported by three main sectors, namely: the construction sector (19, 95%), the agriculture, forestry, and fisheries sector (15, 86%); Large and retail trade; Car Repair and motorcycle (12, 36%). In the third sense the industry can donate, 17% of the total economy of Kulon Progo Regency in 2019. The number of poor people in Kulon Progo Regency in 2019 has decreased compared with the year 2014, although in the process there are several fluctuations. In 2014, the population was 84.67 thousand. However, in 2015 there was an increase in the number of poor people that were quite significant to 88.13 thousand souls. In the next year 2016, the government of Kulon Progo was able to reduce the number to 84.34 thousand people. This decline is quite significant because it is below the year number 2014.

At the time of 2014-2016, there were substantial fluctuations due to considerable increase and decline. Only in the next two years is 2017 and 2019 there is a significant decline in numbers. In 2017, the number of poor people decreased to 84.17 thousand, and then it declined again in 2018 to 77.77 thousand. In the year 2019, the decline in poverty figures reached 74.62 thousand. While in Yogyakarta Province, in 2019 the number of poor people was 448.47 thousand inhabitants. The spread of poor people in Yogyakarta Province is dominant in the urban area of 304.66 thousand inhabitants. The rural area is 143.81 thousand inhabitants. Compared to the data from Kulon Progo and Yogyakarta Province, Kulon Progo Regency accounted for 16.64% of the poor people in Yogyakarta Province. This percentage experienced a reasonably high increase. Because in the year 2014, Kulon Progo only accounted for 15.54%. This percentage indicates that despite the decline in



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Kulon Progo regency, it will increase if the number is pair with the Data on the percentage of the number of poor people in the Yogyakarta Province level.



**Figure 1. The Number of Poor People in Kulon Progo Regency and Yogyakarta Province in 2014-2019 (in Thousand)**

Economic growth in 2022-2024 in Kulon Progo Regency is estimated to continue to increase. The sector whose growth continues to show a significant increase is Transportation and Warehousing by 10.97% in 2022 to 19.29% in 2024. In addition, the Accommodation and Food and Drink Provision sector also shows the same pattern, in 2022 the growth is 10, 16% to 19.98% in 2024. Maintaining economic growth in the midst of the Covid-19 pandemic is not easy, therefore the Kulon Progo Regency government continues to focus on three things. First, health and humanitarian problems that must be addressed. Second, to ensure the condition of the community, especially the social safety net, to the lowest communities and how to protect the economic business sector so that it does not suffer damage or survive in difficult situations. Next is protecting financial sector stability.

From 2021 to 2024, it is estimated that it will continue to show an increase of up to 10.06% in 2024. The decline in Gross Regional Domestic Product (GRDP) growth in 2020 was caused by the construction sector which experienced a significant decline reaching -31.12%. The accommodation and food and beverage provision sector also experienced a decline in growth at -1.64%. Meanwhile, the Health Services and Social Activities sector was the sector with the highest increase reaching 246.47%. The communication and information sector also increased significantly by 35.57%. Other sectors that have experienced an increase will not have significant growth. This is because the economy will still focus on efforts to restore the people's purchasing power, which has dropped dramatically due to the Covid-19 pandemic case.

In 2020, the Gini index of Kulon Progo Regency is predicted to increase from 0.360 in 2019 to 0.383 in 2020. However, from 2021 to 2024 the Gini index is predicted to continue to decline. This is due to the entry of several long-term project investments such as the construction of the Tanjung Adikarta port, the construction of the KSPN Borobudur buffer zone, and the construction of the Menoreh Surgical road. In addition, there are also other projects such as the development of rail access from Kedundang Station to the airport, construction of an airport underpass, the Kamijoro Government Business Entity Cooperation Plan (PPP) and Tanjung Adikarto Port.

The growth rate is predicted to increase in 2022 where the GRDP figure will reach IDR 10,073.35 billion. Until 2024, the growth of ADHK in Kulon Progo Regency is at Rp. 11,796.35 billion with a growth rate of 8.40%. PDRB at current prices will slowly improve along with the recovery of economic conditions due to the Covid-19 pandemic case.



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**Table 1. Results of Projected Income Inequality in Kulonprogo Regency**

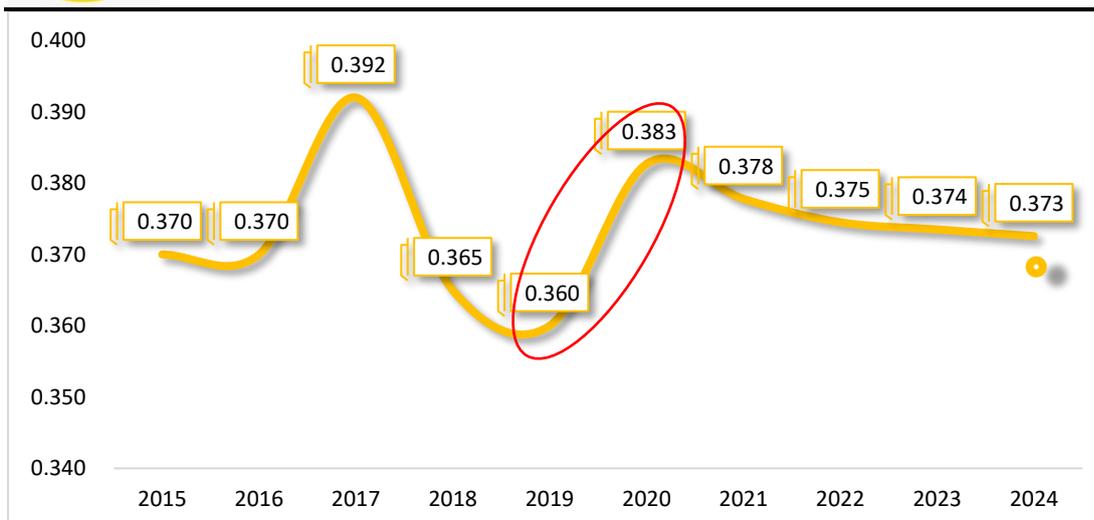
Result	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Linear	0,36	0,36	0,36	0,36	0,35	0,35	0,35	0,35	0,35	0,34
Logarithmic	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36
Inverse	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,36	0,36
Quadratic	0,39	0,40	0,42	0,44	0,46	0,49	0,52	0,55	0,59	0,63
Cubic	0,33	0,27	0,17	0,04	-0,15	-0,39	-0,69	-1,06	-1,50	-2,03
Compound	0,36	0,36	0,36	0,36	0,36	0,35	0,35	0,35	0,35	0,35
Power	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36	0,36
S	0,37	0,37	0,37	0,36	0,36	0,36	0,36	0,36	0,36	0,36
Growth	0,36	0,36	0,36	0,36	0,36	0,35	0,35	0,35	0,35	0,35
Exponential	0,36	0,36	0,36	0,36	0,36	0,35	0,35	0,35	0,35	0,35
Logistic	0,36	0,36	0,36	0,36	0,36	0,35	0,35	0,35	0,35	0,35

Source: data processing results

In 2021 the poverty line will increase by IDR 10,174 to IDR 352,140 with the percentage of poor people decreasing to 18.58%. The year 2022 is predicted to be a turning point in improving poverty in Kulon Progo Regency. The poverty line will increase by IDR 9,810 to IDR 361,950 with the percentage of poor people returning to decline to 18.33%. This excellent graph in 2022 is due to the effects of the Covid-19 pandemic which is estimated to have ended and economic activity has returned to normal. In addition to the large projects already operating, it will revive the economy of Kulon Progo Regency.

In 2023, the increase in the poverty line will slow down from Rp9,446 to Rp371,396 with the percentage of poor people reducing to 18.10%. Until the end of 2024, the poverty line is predicted to increase again to Rp380,477 with the percentage of poor people reducing to 17.88%.

Number of poor people is also predicted to continue to decrease until 2024. In 2020, the number of poor people was 83.39 thousand people, an increase of 8.77 thousand from 2019 of 74.62 thousand people. The high number of poor people in 2020 is mainly due to disrupted economic activity and affecting population income due to the Covid-19 pandemic. In addition, Covid-19 has also resulted in many people losing their jobs, decreasing purchasing power, and still limited employment opportunities. The economy is getting sluggish because of this case forcing many companies to reduce the number of employees as a form of rationalization of reduced incoming turnover. In 2021, marked by the normal operation of the YIA airport, it will have an impact on increasing community mobility and affecting formal and informal economic sectors. So it is predicted that the number of poor people will decrease to 79.83 thousand people.



**Figure 2. Projection Gini Index 2015-2024**

This series of projects predicted to affect the Gini index in Kulon Progo Regency. In 2021, the Gini index predicted to be at 0.378. Then it dropped slightly to 0.375 in 2022. The same thing happened in 2023, where the Gini index will decline to 0.374. Until the end of 2024, the Gini index of Kulon Progo Regency is predicted to be 0.373.

Several experts explained that the Gini Index is not only based on the value of income inequality but also influenced by other factors such as the composition of sectoral economic growth and demographic structure. One of the predictions of the high Gini index in Kulon Progo Regency is because the high Gini ratio influenced by high economic growth in the service sector and the relatively large composition of the unproductive age population.

Inequality will get worse if the welfare level of the lower-income group grows slowly or even falls, while the welfare level of the upper-income group proliferates. Inequality will always exist in the development process, especially in the early stages of development. The widening gap will give birth to various dissatisfaction, which if it continues to accumulate, it can cause unrest that leads to several types of horizontal conflicts that occur in society.

In 2022, it is predicted that the poor population will again decrease to 79.33 thousand people. One of the reasons is that the tourism and industrial sectors will continue to increase given the strategic position of Kulon Progo Regency which is the link between Yogyakarta and Central Java Provinces. The project for the construction of the South Ring Line and the development of industrial designated areas in Sentolo and Temon Districts will affect the increase in community economic activity. It is predicted that the poor population in Kulon Progo Regency will continue to decline until 2024, with the number of poor people reaching 78.43 thousand people.

To show the level of equal distribution of community income distribution, high, medium, or low inequality can be quantitatively analyzed using the Gini Index. The Gini Index values range from 0 to 1. The closer to one, it is said that the level of income inequality of the population is widening, or approaching perfect inequality. Conversely, the closer to 0 the income distribution is more evenly distributed, or closer to perfect equality.

This series of projects is predicted to affect the Gini index in Kulon Progo Regency. In 2021, the Gini index is predicted to be at 0.378. Then it dropped slightly to 0.375 in 2022. The same thing happened in 2023 where the Gini index will decrease to 0.374. Until the end of 2024, the Gini index of Kulon Progo Regency is predicted to be 0.373.



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To reduce the impact of the Covid-19 pandemic on the economy of Kulon Progo, it was carried out with a labor-intensive program entitled Kulon Progo which aims to improve the community's economy due to the Covid-19 pandemic as well as to expand employment to reduce poverty. This program also supports the Kulon Progo Regency policy in fulfilling Community Resources, and the labor-intensive structure of this infrastructure, especially in unemployment. There are 63 labor-intensive programs in Kulon Progo Regency, all of which are physical infrastructure projects such as road works (Corblock) and talut. The package details include 52 packages worked on in the 2020 revised APBD, and the remaining 11 packages in pure regional budgets.

Then the total funds disbursed for the entire package reached IDR 5 (five) billion. With details for the DKK of Rp. 400 million, for the pure regional budget of Rp. 700 million, and for the Revised APBD of Rp. 4 billion. Then for the progress of labor-intensive development carried out in pure regional budgets, there are seven points that have reached 99 percent and one point 45-50 percent. The remaining one point will be worked on in the Amendment budget which is currently still waiting for the evaluation results at the provincial level along with the other 51 packages being worked on in the revised APBD.

The poverty line in Kulon Progo Regency is predicted to increase slightly in 2020 even though the prolonged case of the Covid-19 pandemic affects people's economic activities. Mainly the impact on people's income is decreasing. The poverty line is the minimum standard of community income in meeting their basic needs. If a person's income is below the poverty line, they are categorized as poor. The ideal condition that must be achieved is to increase the poverty line gradually but followed by a decrease in the number of poor people. This shows that the community's income has gradually increased and the poor have decreased.

At the projection graph of the poverty line and the percentage of poor people in Kulon Progo Regency, it is quite good. The poverty line gradually increases every year and is indicated by the percentage of poor people decreasing. Even though in 2020, the increase in the percentage of poor people was quite high due to the Covid-19 pandemic. In 2020, the poverty line rate is IDR 341,966 with a percentage of the poor at 19.56%.

In 2021 the poverty line will increase by IDR 10,174 to IDR 352,140 with the percentage of poor people decreasing to 18.58%. The year 2022 is predicted to be a turning point in improving poverty in Kulon Progo Regency. The poverty line will increase by IDR 9,810 to IDR 361,950 with the percentage of poor people returning to decline to 18.33%. This excellent graph in 2022 is due to the effects of the Covid-19 pandemic which is estimated to have ended and economic activity has returned to normal. In addition to the large projects already operating so that it will revive the economy of Kulon Progo Regency.

### 5. CONCLUSION

Covid-19 increased the income inequality in Kulon Progo regency. This discrepancy caused by a decrease in the buying power of some communities that losing work due to pandemic. Income inequality in the year 2020, the Gini index of Kulon Progo Regency predicted to increase from 0.360 in 2019 to 0.383 in 2020. Nevertheless, in the year 2021 to 2024, the Gini index is expected to continue to decline with the long term investment. One of the alleged height of the Gini index in Kulon Progo because the high number of Gini ratio influenced by the high economic growth in the service sector and the composition of the relatively sizeable unproductive age population.

It can be done by implementing the process of economic recovery due to Covid-19 pandemic cases through (1) Vulnerable group identification and strengthening the social safety net of the community,



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(2) optimizing the utilization and transportation services. Inequality will get worse if the welfare level of the lower income group grows slowly or even decreases, while the welfare level of the upper income group grows rapidly. Inequality will always exist in the development process, especially in the early stages of development, but the widening inequality must be controlled. The widening inequality will give rise to various dissatisfaction, which if it continues to accumulate, it can cause unrest that leads to various kinds of horizontal conflicts that occur in society.

### LIMITATION AND STUDY FORWARD

The contribution of this research is to use the alternative twelve projection methods using time series data. Research carried out so far only uses one or two approaches in making projections. In addition, the impact of the Covid-19 pandemic, which has not occurred for a year, is analyzed for its impact on the economy, especially income inequality. Kulonprogo Regency is an area that has experienced very high growth due to the construction of an international airport.

To improve future research, it is advisable to use the addition of two different test analysis tools to clarify the impact of a pandemic between the period before and after the pandemic.

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## REACTION OF SHARE PRICES IN THE INDONESIAN CAPITAL MARKET TO EVENT OF LAWSUIT AGAINST THE RESULT OF THE INDONESIAN PRESIDENTIAL ELECTION IN 2019

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### Abstract

This study aimed to determine whether there was a difference in abnormal return and cumulative abnormal return before and after the lawsuit against the result of the 2019 Indonesian presidential election. The population was 536 firms in Indonesia stock exchange. The sampling technique used was census sampling. Analysis of the data used was Wilcoxon Signed Ranks Test. The results showed that there were differences in abnormal return and cumulative abnormal return before and after the lawsuit against the results of the Indonesian presidential election. For further research, it was recommended to use other methods in determining the expected return and abnormal return.

**Keywords:** *Expected Return, Abnormal return, Indonesian presidential election*

### 1. INTRODUCTION

The stock price in a capital market will react inseparably due to the information of economic and non-economic received by investors. Samsul (2006) said that one of the events that affects the stock price in the capital market is political event. One of event taking place in 2019 was presidential election. There were two pairs of presidential candidates consisting of candidate number 01 and candidate number 02. After presidential election was held, various independent survey agencies as well as general election commission indicated that the presidential candidate number 01 was the winner of the election. However, the presidential candidate number 02 rejected the election result because they thought there was fraud. As a result of the rejection of the election results, large demonstrations occurred. However, the presidential candidate number 02 finally took a constitutional route in resolving the dispute by filing a lawsuit at the constitutional court because they did not want more chaos in this country. They submitted a lawsuit against the results of the elections to the constitutional court on 24 May 2019. The result of the lawsuit was finally announced on 28 Juni 2019 by assigning presidential candidate number 01 as the winning of presidential elections in 2019. This incident caused turmoil to the company's shares in the Indonesia stock exchange before and after the lawsuit to the constitutional court. However, the average share price as reflected by the composite stock price index (IHSG) did not really decline in the days before and several days after the lawsuit. Table 1 and table 2 below describe the development of the IHSG before and after the lawsuit to the constitutional court.

**Table 1: IHSG Before the Lawsuit on the Results of the 2019 Presidential Election**

15 May	16 May	17 May	20 May	21 May	22 May	23 May
5.462,74	5.895,74	5.826,87	5.826,87	5.951,37	5.939,64	6.032,70

*Source: Indonesia Stock Exchange*



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**Table 1: IHSG After the Lawsuit on the Results of the 2019 Presidential Election**

27 May	28 May	29 May	30 May	31 May	3 June	4 June
6.098,97	6.033,14	6.104,11	6.209,12	6.289,61	6.305,99	6.276,18

*Source: Indonesia Stock Exchange*

The movement of company stock prices in the Indonesian stock exchange can be influenced by the information content of an event, both economic and non-economic events such as political event. If the stock price in the capital market reacts quickly and accurately to reach a new equilibrium price that fully reflects the information contained in the event, then such capital market conditions are called efficient capital markets (Tendelilin; 2010). Fama (1970) defined that the efficiency capital market was a market where the stock price that was created reflected all information from available event. He divided the form of efficient capital market into three categories, namely weak-form market efficiency, semi-strong market efficiency, and strong form market efficiency.

Research on the impact of political events on stock prices in the capital market has been conducted by previous researchers but there are still differences in the results of the research. Trisnawati (2011) proved that the Indonesian capital market did not react to political event in the 2004 presidential election which was indicated by no difference in the average abnormal return before and after the event, but in the 2009 presidential election, the Indonesian capital market reacted to the events indicated by a difference in average abnormal returns before and after the event. Research conducted by, Kabela & Taufik, (2009) in the 2009 presidential election, and Chandra, Njo & Gesti (2014) in the 2004 and 2009 presidential elections using the LQ45 index proved that there was no significant difference in the average abnormal return before and after the event.

The political events of the 2019 presidential election in Indonesia have taken place one year ago, but this event is still very interesting to study considering that the presidential candidate number 02 rejected the results of the survey institutions and the general election commission. This political resistance continued by filing a lawsuit to the constitutional court which has never happened in the history of the presidential election in Indonesia, Based on national political phenomena in 2019, there was still a research gap in previous research and to the best of the writer's knowledge there were no researchers who studied the reaction of stocks in the Indonesian capital market to the incidents of disputes over the election of presidential candidates, so this study tries to test whether the incident of the lawsuit against the presidential election result to the constitutional court in 2019 caused a reaction in the stock price in the Indonesian capital market. The purpose of the event study is to know whether the information content of an event of presidential election will react the stock price in Indonesian capital market. An event will cause the stock price in the stock market to react or cannot be tested using a method called an event study. MacKinley (1997) defines an event study as a research methodology that uses financial market data to measure the impact of a specific event which is usually reflected in stock prices. The purpose of the event study is to examine the information content of an event. If the event contains information, then the stock price in the stock market will react to that event.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *Market Efficiency Theory*

Fama (1970) defines that the capital market efficiency is a market where the stock price created reflects all information from available events. He divides three forms of capital market efficiency known as the Efficiency Market Hypothesis, 1). Weak Form Market Efficiency: The prices of securities on the exchange reflect past prices. 2). Semi Strong Form Market Efficiency: Is the level of efficiency at which the price of a security on the exchange reflects past prices and also reflects all information available to the public. This semi-strong form means that the price that occurs is a fair



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price and no investor can get a profit above normal (abnormal return). This is because all investors are able to access all information available on the market without any transaction costs. No investor has experienced losses or gains above average due to the ignorance of other investors. In a semi-strong form, all investors are sophisticated. 3). Strong Form Market Efficiency:: Is the most perfect form of market efficiency. This form occurs when the share price not only reflects past prices and all publications available on the exchange but also reflects insider information. A strong-form efficiency market will not be possible in this world because insider information is not allowed according to the provisions of most stock exchanges in the world.

### Previous Research

Research on the reaction of the capital market due to an event, among others, was carried out by Rahayu (2007) who examined the reaction of the capital market to the announcement of a unified Indonesian limited cabinet reshuffle for companies on the Jakarta Stock Exchange. This research stated that the capital market had a positive and significant reaction to the reshuffle announcement for limited cabinet members. This was indicated by the appearance of a positive and significant average abnormal return around the announcement date. Bialkowski & Wisniewski (2008) who examined stock market volatility around national elections with samples from 27 Organization for Economic Co-operation and Development (OECD) countries. This study stated that despite several accurate attempts to predict the outcome of an election, investors were still surprised at the outcome of the voting distribution. The stock price reacted strongly in response to this shock. In addition, they conclude that the volatility component of a developing country doubled during the election period.

Kabela & Taufik (2009) examined the effect of the presidential election on July 8, 2009 in the Indonesian Stock Exchange. The result stated that there was a difference in the average abnormal return around the presidential election on July 8, 2009. Furthermore, using the paired simple t-test, it can be concluded that there was no difference in the average abnormal return before and after the Presidential election on July 8, 2009. Tecualu & Rianny (2010) who examined the reaction on LQ-45 of the Indonesian capital market to the 2009 Kuningan bomb incident. The research result indicated that this event did not generate significant abnormal returns for investors. The average abnormal return between before and after the event was not significantly different. In other word, the event did not affect the response of investors in the capital market.

Trisnawati(2011) examined the effect of political events on changes in stock prices by statistical testing comparing means one sample t test with a 95% confidence level. The results of the study stated that there was no difference in the average abnormal return between before and after the 2004 presidential election. Meanwhile, the statistical test compared the means one sample t test with a 95% confidence level stated that there was a difference in average abnormal returns between before and after. the event of the 2009 presidential election. Investors did not react to the events of the 2004 presidential election because investors were waiting and watching carefully the events that were taking place. In the 2009 presidential election, investors reacted, marked by a negative difference in the average abnormal return.

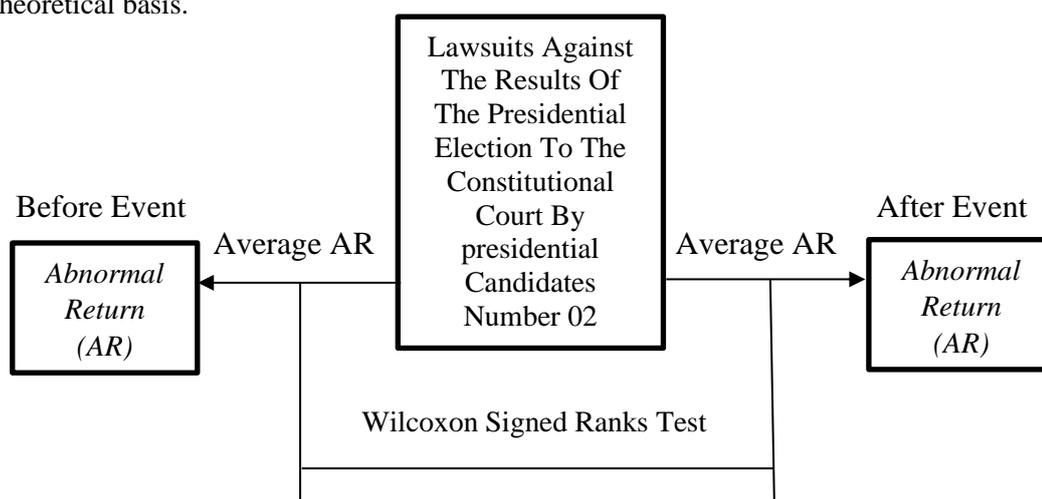
Wardhani (2012) examined the reaction of the Indonesian capital market to the election of the Governor of DKI Jakarta Round II 2012 on shares of the compass index100. The results of the t-test showed that there was a significant positive abnormal return on several days around the event date. Meanwhile, the Wilcoxon signed rank test results proved that there was a significant difference between the average abnormal returns in the post-event period but not significant in the pre-post-event period and the pre-post-event period. The results of the Wilcoxon signed rank test also showed that there was a significant difference between the mean TVA in the pre-event period and the post-event period, but it was not significant in the pre-post-event period.

Chandra, Njo & Gesti (2014) conducted a study on average abnormal return, average trading volume activity before and after the election in Indonesia, stating that there was no significant difference in average abnormal return in the LQ-45 group before and after the presidential election in Indonesia.

2004 and 2009. There was no significant difference in average trading volume activity in the LQ-45 group before and after the presidential elections in 2004 and 2009. Permana (2013) examined abnormal returns in the financial sector before and after the elections for the Governor of DKI Jakarta on September 20, 2012. The results proved that there were significant differences in positive abnormal returns on the fifth day. This condition showed that the market reacts to the events.

Pratama & Gede Mertha (2014) examined the comparison of abnormal returns before and after the announcement of the rights issue in the 2009-2012 period with a sample of 60 companies. The result concluded that there was no significant abnormal returns before and after the announcement of the rights issue and during the estimation period there was an average less consistent abnormal return. Setyohutomo & Nadia (2014) tested the reaction of the capital market before and after the announcement of the stock split on the Indonesia Stock Exchange in 2012. The result stated that there was no difference between the average abnormal return before and after the event. Shah & Parvinder (2014) examined a sample in the Asia-Pacific region during the period May 2013 - September 2013 to identify the post-facto effect of M&A announcements on firm target share prices and bidding firms. The result indicated a positive cumulative average abnormal return (CAAR) which is significantly different from zero. The bidding firm did not show statistically significant CAAR in all event windows. The bidding firm illustrated that the return after the announcement was significantly greater than the profit before the announcement.

The difference between this study and previous studies is that this study uses all 536 companies listed on the Indonesian Stock Exchange in 2019, which to the best of my knowledge has never been carried out by previous researchers. This research is an event study by taking non-economic events in the form of a lawsuit on the results of the 2019 Indonesian presidential election which is related to the capital market reaction. The theoretical framework begins with the existence of non-economic events, namely political events in a series of disputes over the results of the presidential election to the constitutional court as events that contain information. The capital market reacts to all information that is relevant to investors and will cause market reactions that are reflected in changes in share prices. The research variable used to see the impact of information from the 2019 presidential election lawsuit on the capital market reaction is abnormal returns. The average abnormal returns before and after the event were then compared. The following is a conceptual framework which is analyzed based on theoretical basis.



**Figure 2.1. Reseach Framework**

Stock price movements can be influenced by information from an event, both economic and non-economic, including political events. The absorption of information by the capital market depends on how efficient the form of the capital market is. Fama (1970) states in his market efficiency theory that the efficiency capital market is a market where the stock price that is created reflects the overall information from available events. Meanwhile Beaver (1968) states that the relationship between information from an event and the price of the security is called market efficiency. The faster the



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market reacts to information from an event, the more efficient the capital market is and the information is relevant.

According to the Efficiency Market Hypothesis put forward by Fama (1970) states that the form of capital market efficiency can be divided into three forms. 1). Weak form market efficiency which states that the prices of securities in the capital market reflect past prices. 2). Semi-strong form market efficiency is the level of efficiency where the price of a security in the exchange reflects past prices and also reflects all information available to the public. 3). Strong form market efficiency. is the most perfect form of market efficiency. This form occurs when the share price not only reflects past prices and all publications available on the exchange but also reflects insider information.

The lawsuit against the results of the 2019 presidential candidate number 02 to the constitutional court is a very large political event in Indonesia in 2019. Samsul (2006) said that national political events can cause prices stocks in the stock market reacted. The events of the 2019 presidential election lawsuit will become information for investors and they will act according to how they interpret the information. According to the Signaling theory investors will act if they get information, both bad news and good news. The difference in the average abnormal return before and after an event is a form of reaction and different expectations from capital market players towards that event. Based on the theoretical study above, the hypothesis of this research is:

*H<sub>0</sub>: There is a difference in the average abnormal return before and after the lawsuit against the result of the 2019 presidential election*

*H<sub>1</sub>: There is no a difference in the average abnormal return before and after the lawsuit against the result of the 2019 presidential election*

### 3. RESEARCH METHODOLOGY

#### Data and Sample

The data used are daily stock prices of all companies and daily composite stock price in 2019 published on the Indonesian stock exchange website. The population of this research is all companies listed on the Indonesian stock exchange in 2019, consisting of 536 companies. The selection of the research sample was carried out by using the census sampling method (Sugiyono, 2013). The sample of this study was 536 companies listed on the Indonesian stock exchange. The observation period of the event consists of a 12 days event window (six days before, event day, and six days after).

#### Research Variables

This study uses Abnormal Return before and after the lawsuit against the result of presidential election in 2019 as a variable. Abnormal return is the difference between the actual return and the expected return. Abnormal returns can be calculated by the formula:

$$AR_{it} = R_{it} - E(R_{it})$$

#### Techniques Analysis

The data analysis technique in this study is as follows (Jogianto, 2010):

1. Calculate the Actual Return of each share

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$$

2. Calculate the Expected Return using a market adjusted model



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$$E(R_{it}) = \frac{IHSG_{it} - IHSG_{it-1}}{IHSG_{it-1}}$$

3. Calculate the Abnormal Return of each share

$$AR_{it} = R_{it} - E(R_{it})$$

4. Calculate the Average Abnormal Return of each share

$$AAR_t = \frac{AR_{it}}{n}$$

5. Calculate *Cumulative Abnormal Return*

$$CAR_{it} = \sum AR_{it}$$

Information:

Rit	: Actual return for stock i on day t
Pit	: Closing price on day t
Pit <sub>-1</sub>	: Closing price on the previous day
E(R <sub>mt</sub> )	: The estimated return is equal to the market return
IHSG <sub>it</sub>	: Composite stock price index on day t
IHSG <sub>it-1</sub>	: Composite stock price index on the previous day
AR <sub>it</sub>	: Stock i's abnormal return on day t
CAR <sub>it</sub>	: Cumulative abnormal return
AAR <sub>t</sub>	: Average abnormal return
n	: Total shares sampled

The normality test is intended to determine whether the sample data meets the requirements of a normal distribution. One Sample Kolmogorov-Smirnov is applied to detect data normality (Ghozali, 2013). The following are guidelines for decision making for the results of the One Sample Kolmogorov-Smirnov normality test:

- a. If the value is asympt. Sig. (2-tailed) < 0.05, data distribution is not normal.
- b. If the value is asympt. Sig. (2-tailed) > 0.05, data distribution is normal

The Wilcoxon Signed Rank Test is a nonparametric test to measure the significance of the difference between 2 groups of paired data on an ordinal or interval scale but with an abnormal distribution (Singgih, 2010). The Wilcoxon Signed Rank Test is an alternative test of paired t test or paired t if it does not meet assumption of normality. After the normality test was carried out on the sample data of this study, the results showed that the data were not normally distributed, so this study used the Wilcoxon Signed Rank Test. The decision making hypothesis from the Wilcoxon Signed Rank Test is as follows:

If the asympt sig (2-tailed) value < 0.05, there is a significant difference in results two variables that are paired



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If the asympt sig (2-tailed) value > 0.05, there is no difference in the results the two significant variables are paired

Descriptive statistical analysis is intended to see the profile of the study and provide an overview of the object under study through sample data and make generally accepted conclusions. Descriptive statistics are used to describe a data that is seen from the mean, median, standard deviation, minimum value, and maximum value.

#### 4. RESULTS AND DISCUSSIONS

After the normality test of the abnormal return and cumulative abnormal return data with the One-Sample Kolmogorov-Smirnov Test, the results show that both the abnormal return and the cumulative abnormal return are not normally distributed because they have an Asympt value (Sig 2-tailed) <0.05. The results of the normality test show that the data is not normally distributed, so hypothesis testing will use the Wilcoxon Signed Ranks Test. Table 3 below describes the results of descriptive statistical abnormal returns six days before the event, during the event window and 6 days after the event from 536 companies listed on the Indonesian Stock Exchange in 2019.

**Table 3. Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
AR t-6	536	-327	119	-92.02	40.186
ARt-5	536	-199	312	6.91	41.553
ARt-4	536	-186	272	-7.42	43.869
ARt-3	536	-193	243	.55	47.916
ARt-2	536	-246	221	5.58	43.800
ARt-1	536	-361	219	-9.75	47.532
ARt0	536	-954	347	-3.04	68.249
ARt+1	536	-172	232	6.72	34.007
ARt+2	536	-171	330	-5.69	40.689
ARt+3	536	-764	328	-7.50	51.997
ARt+4	536	-253	232	-9.30	44.473
ARt+5	536	-195	281	2.52	36.942
ARt+6	536	-244	255	6.61	41.846
Valid N (listwise)	536				

The minimum abnormal return value before the 2019 presidential election occurred on day t-1 of -0.361 with a mean value of -9.75 and a standard deviation value of 47.532. Meanwhile, the maximum abnormal return value before the 2019 presidential election occurred at t-5 with a value of 0.312 with a mean value of 6.91 and a standard deviation value of 41.196. The minimum abnormal return value after the lawsuit against the results of the 2019 presidential election to the constitutional court was on day t + 3 of -0.764 with a mean value of -7.50 and a standard deviation value of 51.997. The maximum abnormal return value after the lawsuit on the results of the 2019 presidential election occurred at t + 2 with a value of 330 with a mean value of .69 and a standard deviation of 40.689. These results illustrate that there is still a decrease in abnormal returns on days t + 2 to t + 4, which can be seen from the decreased mean value during that period. However, there was an increase in the mean value at t + 5 and t + 6. If you look at the results of the descriptive statistics data above, it indicates that there is a reaction in the Indonesian capital market regarding the lawsuit against the results of the 2019 Indonesian presidential election.

**Table 4. Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
AAR before lawsuit	536	-82	40	-16.05	12.735
AAR after lawsuit	536	-656	479	-6.66	78.085
Valid N (listwise)	536				



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Based on the research results in table 4 above, it shows that the minimum and maximum average abnormal return (AAR) values of 536 companies on Indonesia stock exchange in 2019 show that the minimum AAR and maximum AAR values before the lawsuit for the election of presidential candidates in 2019 are -82 and 40, respectively. with a mean value of -16.05 and a standard deviation of 12.735. Meanwhile, the minimum and maximum AAR values after the lawsuit were -656 and 479 with a mean value of -6.56 and a standard deviation of 78.085, respectively. The results of this study illustrate that the growth in the mean average abnormal return both before and after the presidential candidate's lawsuit is negative.

**Tabel. 5**  
**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
CAR before lawsuit	536	-494	242	-96.34	76.492
CAR after lawsuit	536	-656	479	-6.66	78.085
Valid N (listwise)	536				

The results of descriptive statistics in table 5 above show that the cumulative abnormal return (CAR) value. The minimum and maximum cumulative abnormal return (AAR) values of 536 companies in indicate that the minimum and maximum CAR values before the lawsuit for the presidential election in 2019 were -494 and 242, respectively, while the mean value is -96.34 and the standard deviation is 76.492 ., The minimum and maximum CAR values after the lawsuit were -656 and 479 with a mean value of -6.56 and a standard deviation of 78.085, respectively. The results of this study illustrate that the growth in the mean cumulative abnormal return both before and after the presidential candidate's lawsuit is negative.

The normality test on data on abnormal returns and cumulative abnormal returns use the One-Sample Kolmogorov-Smirnov Test, The result shows that the data are not normally distributed. If the data is not distributed so Wilcoxon signed rank test can be applied. The results of hypothesis testing can be seen in table 6 and table 7 below. Based on the results in table 6, it shows that the Asymp. Sig (2tailed) of the abnormal return before and after the lawsuit against the 2019 presidential election is 0.0117, thus the hypothesis H<sub>0</sub> is accepted and H<sub>1</sub> is rejected. This condition indicates that there is a difference in abnormal returns before and after the lawsuit for the presidential election in 2019. In other words, the lawsuit made by the president candidate number 02 has an effect on the abnormal return of shares in the Indonesian stock exchange.

**Table 6. Wilcoxon Signed Ranks Test results**

Wilcoxon Signed Ranks Test results	AAR before lawsuit - AAR after lawsuit
Z	-2.379 <sup>b</sup>
Asymp. Sig. (2-tailed)	.017

Meanwhile, the results of Asymp sig (2 tailed) of cumulative abnormal returns in table 7 before and after the lawsuit against the 2019 presidential election were 0,000. The result indicates that there is a difference in cumulative abnormal returns before and after the lawsuit of the presidential and vice presidential candidates.



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Table 7. Wilcoxon Signed Ranks Test results

Wilcoxon Signed Ranks Test results	CAR before lawsuit - CAR after lawsuit
Z	-16.634 <sup>b</sup>
Asymp. Sig. (2-tailed)	.000

After testing the research hypothesis, the results showed that there was a significant difference in abnormal returns before and after the lawsuit on the results of the presidential election at a 95% level of confidence.. Investors respond to the information signals contained in the event because they think that this political event will have an impact on the financial performance of companies in the Indonesian Stock Exchange so that they react. This lawsuit incident which was accompanied by a large demonstration made investors consider the information contained in the incident meaningful and relevant. This condition raises the psychological feeling of investors which creates a sense of concern which in turn encourages investors to respond to the Indonesian capital market.

Referring to the mean abnormal return value in descriptive statistics before and after the 2019 presidential election lawsuit, it shows that the mean abnormal return is negative at t-6, t-4 t-1 up to the event window (t0). Meanwhile, the mean abnormal return after the event was negative at t + 2, t + 3 and t + 4. The existence of a negative abnormal return indicates that investors react to the information about a large lawsuit and demonstration which is bad news for investors so that they react negatively to the capital market. Although all investors can access information on political events related to a lawsuit against the results of the presidential election, not all investors will react to the information content of these events. This condition is what allows the difference in abnormal returns before and after the lawsuit against the results of the 2019 presidential election.

The results of this study support the market efficiency theory which states that the efficiency capital market is a market in which the stock price that is created reflects all information from available events. The results of this study support the results of research from Trisnawati (2011) which examines the effect of political events on changes in stock prices by statistical testing comparing means one sample t test with a 95% confidence level. The results of the study show that there is a difference in the average abnormal return between before and after the 2009 presidential election. However, this research contradicts the results of research conducted by Chandra, Njo & Gesti (2014) who conducted research on average abnormal returns, before and after the presidential election in Indonesia. The result states that there is no significant difference in the average abnormal return in the LQ-45 group before and after the presidential election events in 2004 and 2009.

### 5. CONCLUSION

Based on the results of the research above, the conclusion of the study is that the Indonesian capital market reacted to the lawsuit the presidential candidates number 02 to the constitutional court in 2019. This indication is shown by differences in abnormal returns before and after the lawsuit incident. the results of the 2019 presidential election. Abnormal returns reacted negatively in the days before and several days after the lawsuit against the results of the presidential election. This condition indicates that investors reacted to the lawsuit event. These results also indicate that there are investors who do not react to information from these events.

### LIMITATION AND STUDY FORWARD

Companies listed on the Indonesian stock exchange should continue to improve their financial performance even though there are issues that may have an impact on the capital market. If the company's financial performance is good, investors will be interested in purchasing the company's shares. Rational investors should obtain relevant information in making decisions to buy or sell



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company shares. Investors should also consider not only technical factors but also the company's fundamental factors in buying or selling shares of a company. The limitation of this research is that there is still a need to add more observation time. For further research, it is recommended to use market model in determining the expected return before and after the presidential election result announcement.

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## THE INFLUENCE OF FINANCIAL DISTRESS, IDLE CASH AND FINANCIAL STATEMENT OPINIONS ON THE MANAGEMENT OF LOCAL GOVERNMENT SILPA

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### Abstract

Purpose of this research is to find out whether *financial distress*, *middle cash*, and opinions affect the management of local government SILPA. In addition, to find out whether *financial distress*, *middle cash*, and opinions in an effort to detect the phenomenon of *Slow and Back Loaded Budget Absorption*. Our study population is the Regional Government. The Local Governments that are the object of our research are the Provincial Governments, District Governments and City Governments. Local governments, both provincial, district and city governments, were the samples of our study, which were local governments in the Republic of Indonesia, totaling 542. The data was tested using multiple regression equations. The results showed that the financial distress variable had no effect on SILPA management. Opinion has an effect on SILPA management, this shows that the better the opinion obtained by the Regional Government will show the lower the level of SILPA management, while the SiLPA variable has a positive effect on SILPA management. This shows that the management of the remaining excess at the end of the year (SILPA) is influenced by the amount of excess remaining in last year's budget calculations and is not influenced by financial distress indicators and the lower the opinion level, the higher the SILPA management is. This implies that the better the opinion results, the lower the SILPA management level will be.

**Keywords:** *Financial Distress, Idle Cash, Opinion and Management of Silpa, Slow And Back Loaded Budget Absorption*

### 1. INTRODUCTION

#### Research Background

Local government in implementing development requires a lot of funds. Local governments need funds to implement work programs that have been mutually agreed upon with the Regional Representatives Council. Work programs are arranged from village to province. The planning process requires no small amount of money. For this reason, the results of planning are in the form of planning documents ranging from RPJP, RPJM to RKPD and KUA and PPAS.

The planning of various local government work programs requires commitment from the local government in the form of funding. Funding for the implementation of work programs in the form of availability of funds. Funds are provided by local governments by collecting local taxes and levies. The funds collected will be allocated to each regional apparatus organization that has prepared a budget.

The work program is carried out by each regional apparatus organization according to the schedule and budget stipulated in the regional regulation regarding regional revenue and expenditure budgets. Local governments are obliged to provide cash to organize or implement various work programs that have been stipulated in the Regional Regulations in each Regional Government throughout Indonesia. The work program is compiled an implementation schedule. In addition to the work program having an implementation schedule, the work program also has a schedule for allocating cash provision and disbursements.

Cash is a means of payment for various government and local government programs and works. The government carries out cash management. Cash management is used to manage cash receipts and



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payments. This is done so that cash receipts can be used optimally to finance planned cash disbursements. Availability of cash must be able to oversee the expenditure or financing of work programs. Do not let scheduled cash disbursements not be financed by cash receipts.

Storage of local government cash from cash receipts and cash disbursements using the bank mechanism. The bank mechanism in question is the opening of a regional general cash account (KUD) by the regional government for cash flow both revenue and expenditure. Local governments use a non-cash mechanism, namely using bank payments. Receipts received by local governments are received and deposited in a bank account. Government spending also goes through bank accounts. Thus, cash (bank) balances can be directly monitored from the designated cash (bank) accounts. At the end of the year, you will get an overview of middle cash in the bank.

Analysis of cash (compiled from various sources) deposited in the bank at the end of each year (variations in the month at the end of the period) shows a very large balance from year to year. Existing data from various sources that we obtain show that from 2012 amounting to Rp. 99.2 trillion, in December 2013 amounting to Rp. 92.4 trillion, in 2014 amounting to Rp. 113.1 trillion, in 2015 amounting to Rp. 27.72 trillion, in 2016 amounting to Rp. 214.7 Trillion. This shows that there is fluctuation with the end of 2019 showing an increasing trend. This certainly shows an unfavorable symptom for the regional government and the community in the local government environment that has these sedentary cash.

The factors that cause cash to settle are varied. The author tries to conduct research on various sources to reveal the causes of the deposited cash. The causes of local government cash depositing in the bank include the presence of a third party that has not taken the money until the end of the year, weak regional capacity to manage the budget, deliberate elements, political factors, the function of the Regional Development Bank as a local government cashier causes more cash in the Bank, obstacles to implementation of projects and activities so that payments have not yet been paid (some of the physical activities or projects have not been implemented or have been implemented but have not yet been completed, so that the payments cannot be paid), Delay in channeling Central Government funds to the Regions also contributes to increasing the deposition of Local Government funds in banking, results in the form of interest from the perception bank, poor spending patterns, regions do not have a mature budget plan, local governments are very careful in executing funds, regional governments feel safer to save APBD money in the bank rather than use it for economic activities in the region or the community, and pem public tax payment which increases ahead of the deadline.

The above situation shows that there is a supply of resources in the local government in the form of cash and cash equivalents. Another situation is that there are local governments that have a situation of lack of funds. Local governments that have resources (cash and cash equivalents) are not or less capable of providing facilities and services to the public (society). If this situation occurs, the local government will experience symptoms of financial distress. Financial distress according to Ross and Westerfield in Tubels (2015) is a condition in which the company's operating cash flow is not able to cover or meet current liabilities (John M. Trussel, 2013). According to Jones and Walker (2007), financial distress is the inability of the government to provide services to the public according to predetermined service quality standards (Walker SJ, 2007). This government's inability is due to the fact that the government does not have the available funds to invest in the infrastructure used in the provision of services to the public. This condition of shortage or unavailability of funds indicates that the government is experiencing financial difficulties. Financial distress can lead a company to experience failure (corporate failure) in its contract which can eventually be restructured financially between the company, creditors, and investors. Meanwhile, in the government sector, financial distress is the inability of the government to provide public services according to established service quality standards. One of the service quality standards set by the central government for regional governments is the allocation of capital expenditures. The standard of service quality in the form of



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capital expenditure is 30% based on the guidelines for preparing regional revenue and expenditure budgets (Ministry of Home Affairs, 2016).

Data analysis The composition of capital expenditures and expenditures (data from the Ministry of Finance) is the 2015 average of 25% in 2016 of 24%, 2017 of 22%, 2018 of 20% and in 2019 of 7% (as of 20 August 2019). This data is processed from all local governments in Indonesia including provinces, districts and cities. In 2015 there were 542 to 2019 as many as 537 regional governments (there are regions that have not submitted data to the Ministry of Finance).

Other source regional government financial distress is defined as the inability of the regional government to repay both principal and loan interest. This capability can be indicated by the debt service coverage ratio (DSCR) as regulated in PP. 54/2005 concerning regional loans. The regulation states that local governments can make regional loans if they have a DSCR rate of at least 2.5 (two and a half). For local governments that are unable to achieve the DSCR level, they are not allowed to make regional loans because they are afraid that they will return both principal and interest on the loan. If the local government has difficulty repaying the principal and interest of the loan (having a DSCR of less than 2.5), it can be declared in financial distress status. The above situation shows that the regional government financial management system must be continuously improved so as not to experience idle cash and symptoms of financial distress.

The financial management system of both the Government, Local Government, BUMN and BUMD still has to be improved. This is in line with the view of the Chairman of the BPK who stated that the results of the BPK RI Audit for Semester II of 2019 in the management and responsibility of state finances held by the central government, local governments, BUMN / BUMD and other agencies still need improvement, including the quality of report preparation, finance, effectiveness of program and activity implementation, compliance with legislation, and effectiveness of the internal control system (BPK, 2019).

BPK's findings in the summary report on the results of semester audits indicate weaknesses in financial and asset management. This can be seen from the results of the IHPS I examination for the 2017 fiscal year. IHSP I-2017 is a report on the summary of the audit results report. A total of 687 Audit Result Reports (LHP) completed by BPK during the first semester of 2017 consisting of 645 financial LHPs, 9 performance LHPs and 33 specific purpose LHPs (DTT). The parties being questioned consisted of 113 central governments, 537 regional governments, as well as 37 BUMN and other agencies. The results obtained were 9,729 findings containing 14,997 problems. The details of these findings include the problems of SPI weakness, non-compliance with laws and regulations, inefficiency, inefficiency and ineffectiveness. The number of findings still is 7,284 (49%) problems of weaknesses in the internal control system (SPI) and 7,549 (50%) problems of non-compliance with statutory provisions valued at Rp. 25.14 trillion, and 164 (1%) problems of inefficiency, inefficiency, and ineffectiveness of IDR 2.25 trillion (Sugianto, 2019).

As many as 4,707 non-compliance problems valued at Rp. 25.14 trillion were non-compliance problems that resulted in losses of 3,135 problems worth Rp. 1.81 trillion, potential losses of 484 problems worth Rp. 4.89 trillion, and lack of revenue as many as 1,088 problems worth Rp. 18.44 trillion. In addition, there were 2,842 non-compliance issues resulting in administrative irregularities. Meanwhile, out of 164 inefficiency, inefficiency, and ineffectiveness problems valued at Rp. 2.25 trillion, there are 12 inefficiency problems valued at Rp. 11.96 billion, 30 inefficiency problems valued at Rp. 574.31 billion, and 122 ineffectiveness problems valued at Rp1.67 trillion. This will cause variations in the BPK opinion.

From the description above, the existing phenomena, both financial distress, middle cash and opinion on financial report audits, have a driving factor for the occurrence of these events. Many things that I have said above are driving factors from various aspects. One of the reasons for this is that we suspect



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that there will be an excess of Budget Calculation at the end of the period. Each year the local government leaves cash in the form of SILPA. In the report on the realization of local government budgets from year to year, there is a phenomenon that varies in the number of SILPAs in local governments, both provincial, district and provincial. In the budget realization report, there is an interesting phenomenon that needs to be studied more deeply. An interesting phenomenon in the management of regional finances recently is the frequent occurrence of budget residues (SILPA) in the budget realization report (LRA). Whereas in the pre-determined budget (APBD), the Regional Government has determined a prediction of a surplus or deficit, that is, regional revenue cannot cover all regional expenditure or income is able to cover all expenditure so that a surplus. (Syukri, 2013). The deficit or surplus in the APBD is resolved by means of a financing mechanism and the results in the APBD book are always *balanced*, however, the budget realization report shows that there is always a SILPA (different from the plan).

This phenomenon is supported by data on the realization of the APBN on the Allocation of Transfers to Regions, an increase from Rp. 411.3 trillion (2011) to Rp. 623.1 trillion (2015). This increase was followed by an increase in APBD expenditure from IDR 518.7 trillion (2011) to IDR 948.9 trillion (2015). In 2016, the realization of Transfers to Regions and Village Funds in the APBN reached Rp. 710.9 trillion and the 2017 allocation was Rp. 764.9 trillion. On the other hand, the amount of regional government savings in banks at the end of December was quite high and increased from Rp80.4 trillion (2011) to Rp.103.8 trillion (2015). Simultaneously with the increase in the amount of savings by the local government in the banking sector, there was an increase in the SiLPA by the regional government from Rp. 78.5 trillion in 2011 to Rp. 101.6 trillion in 2015. Meanwhile, the achievement of development indicators has not fully shown encouraging results because there are still several provinces with relatively SiLPA. high but the achievement of its development is still below the national level.

Regional government deposits in banking and SILPA are relatively high, indicating that regional governments have not yet optimally utilized APBD funds in providing public services and economic development in the regions. These symptoms need to be analyzed considering that the main source of funding for regional autonomy is contributed by transfers from the central government. In accordance with this, this evaluation is aimed at identifying the causes of the high level of SILPA and local government savings in banks and formulating policy recommendations to improve the quality of regional financial management, particularly those related to the transfer policy to the regions.

From the background description above, we are interested in compiling research with the formulas that we convey in the following section

### **Problem Formulation**

From the description of the above problems that we have conveyed in the first chapter above, we compile a problem formulation whether the variables *financial distress*, *idle cash*, and opinion affect the management of local government SILPA? Each of them has different measuring tools which we will explain in the methodology section. The formulation of the problem above provides direction for our research so that our research is more focused and focused.

### **Research Objectives**

Objectives The research objectives that we compiled for the implementation of this study were to determine whether *financial distress*, *middle cash*, and opinions had an effect on the management of local government SILPA. From this formula, it is expected to know whether all variables can affect the SILPA variable. However, it can also be used to determine whether *financial distress*, *middle cash*, and opinions are in an effort to detect the phenomenon of *Slow and Back Loaded Budget Absorption*.

To explore the formulation of the objectives of this study, in the following sections we present a literature review of the variables we compiled in the study.



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### 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### Review of research literature

##### a. Excess budget calculation (SILPA)

The remainder of the budget is the funds belonging to the local government which have not been used for one fiscal year or are still remaining at the end of the fiscal year. In the cash-based budget concept, the remaining budget equals the amount of unused local government money or cash. There are two forms of remaining budget, namely SiLPA and SILPA. The remaining budget occurs due to many factors, including the existence of regulations, budget planning and procurement of goods and services (Ramadhani & Setiawan, 2019).

SiLPA is the remaining budget from last year which is in the APBD for the current / current budget year. SiLPA is regional revenue originating from the remaining cash from the previous fiscal year. For example, the SiLPA in the 2012 APBD is the SILPA in the 2011 budget year. While the SILPA in the 2012 APBD is the "plan" for the remaining budget at the end of 2012, which will become definitive when the Perda on accountability for the implementation of the APBD has been enacted. The amount of the remaining budget at the end of the year is also due to budget planning and the concentration of budget execution at the end of the year (Irwan, Mochamad, & Hatta, 2018). In addition, there is a factor of SKPD's desire to delay budget absorption and local government performance (Heriberta, Tasman, & Yanilia, 2018).

In some areas a policy has been made (for example in Central Java Province) that SILPA in the APBD in district and city governments is required to be 0 (zero) or nil (without a rupiah value). That is, it is not planned that there will be a difference between the amount of revenue and the amount of regional expenditure. This is interpreted as a (*balanced budget*). In principle, this policy is to encourage district / city governments to be more responsible for the use of public money, so that it is in line with the concept of *value for money*, which includes economy, efficiency and effectiveness.

The relationship between SiLPA and SILPA is still a question mark: is it correlated or not. If SiLPA is positively correlated with SILPA, is it necessary to reduce SiLPA in the APBD? If the SiLPA value in the APBD is set to be small, but then the actual value is much larger, will it result in a larger SILPA? If it is related to financial performance or budget absorption, does past performance have an effect on future performance?

##### b. Financial Distress

According to Jones and Walker (2007), financial distress is the government's inability to provide services to the public according to predetermined service quality standards (Walker SJ, 2007). The fiscal crisis with some authors attributed this problem to a lack of organizational resources and managerial skills which resulted in an inability to provide quality services in an efficient manner or to adapt to changing conditions (Carmeli, 2003).

This government's inability is due to the fact that the government does not have the available funds to invest in the infrastructure used in the provision of services to the public. This condition of shortage or unavailability of funds indicates that the government is experiencing financial difficulties. Financial distress can lead a company to experience a failure (corporate failure) in its contract which can eventually be carried out by financial restructuring between the company, creditors, and investors. Meanwhile, in the government sector, financial distress is the inability of the government to provide public services according to established service quality standards. In addition to financial distress, it is also caused by errors in budget management and increased employee costs (K. Urahn, Ettliger, Atwell, Fehr, Huh, & Russel, 2013). One of the service quality standards set by the central government for regional governments is the allocation of capital expenditures. . The standard of



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service quality in the form of capital expenditure is 30% based on the guidelines for the preparation of regional revenue and expenditure budgets.

Other source regional government financial distress is defined as the inability of the regional government to repay both principal and loan interest. This capability can be indicated by the debt service coverage ratio (DSCR) as regulated in PP. 54/2005 concerning regional loans. The regulation states that local governments can make regional loans if they have a DSCR rate of at least 2.5 (two and a half). For local governments that are unable to achieve the DSCR level, they are not allowed to make regional loans because they are afraid that they will return both principal and interest on the loan. If the local government has difficulty repaying the principal and interest of the loan (having a DSCR of less than 2.5), it can be declared in financial distress status. The situation above shows that the local government financial management system must be continuously improved so as not to experience idle cash and symptoms of financial distress.

### c. Idle Cash

Idle cash has another name, namely unemployed cash. Idle money in public sector financial management is money contained in the general cash account, which is not used to finance the operations of certain activities and has the potential to generate interest in money (Arham, 2015). In simple language, Idle money is money that is idle and not used effectively. From this point of view, idle cash means more cash or excess cash.

The finance minister's regulation defines excess cash. In the Regulation of the Minister of Finance Number 03 / PMK.05 / 2010, it is stated that excess cash is a condition when the KUN Account occurs and / or it is estimated that the balance of the KUN Account exceeds the need for state expenditures in a certain period after being calculated with the initial balance and the Minimum Cash Balance (SKM). So far, the government actually has idle funds in the form of SAL funds which are sometimes used to cover temporary cash shortages and as an alternative financing.

According to former Finance Minister Bambang PS Brodjonegoro, idle funds are funds placed in banks in the form of demand deposits, time deposits, and savings whose amount exceeds the need for APBD spending for 3 months (Ministry of Finance, 2019).

The criteria for idle funds in this study are as follows: **first**, BUN has the authority to access these funds. This authority is based on regulations that form the basis for BUN in monitoring and managing funds in these accounts. **Second**, these funds exceed the expenditure requirements of the account for a minimum of 3 months and are unemployed until the end of the fiscal year. The amount of idle funds exceeds the expenditure needs / obligations of the account and the funds are idle until the end of the budget. **Third**, not limited to use. The idle funds are not bound to be earmarked, namely limited use which can be caused by two things, namely an engagement with a third party and due to regulations. So that the funds have been determined for their intended use and cannot be used in cash management by BUN. **Fourth**, the Central BUN from time to time can easily transfer idle funds from the original account to the RKUN (and vice versa). The idle funds can be transferred by BUN on time, there are no large fees / fees, and other conditions that can hinder the transfer process. **Fifth**, the account is included in the account managed by the Central BUN Authority. The existing account is included in the account managed by the Central BUN Authority (Dit. PKN) (Ministry of Finance, 2019). For research with local government objects, the criteria above must be modified. What is meant by BUN is the regional general treasurer for the context of local government financial management. In this study, researchers used the remaining current year budget indicator as an indicator of the existence of middle cash in local governments.

### d. Opinion

The local government has the obligation to prepare financial reports. The financial reports of the government and local governments will be audited or examined by an audience, in this case the BPK. The auditor will compile an audit report in the form of an audit report (BPK, 2017). Government and



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local government financial reports are prepared to provide relevant information on the financial position and performance of the government and local governments during a reporting period. Regional Government financial reports are mainly used to compare the realization of revenue and expenditure with a predetermined budget, assess financial conditions, assess the effectiveness and efficiency of Regional Governments, and help determine compliance with laws and regulations. Local Governments have the obligation to report efforts that have been made carried out and the results achieved in the implementation of activities in a systematic and structured manner in a reporting period in the interests of accountability, management, transparency, intergenerational balance

Accountability intended as the government's effort to be accountable for the management of resources and the implementation of policies entrusted to the Regional Government in achieving the goals that have been set periodically. Management is intended as an effort to assist users of financial statements to evaluate the implementation of Regional Government activities in the reporting period so as to facilitate the planning, management and control functions of all assets and equity of Regional Government funds for the benefit of the community. Transparency is intended as an effort to provide open and honest financial information to the public based on the consideration that the public has the right to know openly and thoroughly the responsibility of the Regional Government in managing the resources entrusted to it and its compliance with statutory regulations. Intergenerational *equity* is intended as an attempt to assist report users to find out whether Local Government revenues in the reporting period are sufficient to cover all allocated expenditures and whether future generations are assumed to share the burden of these expenses.

Local Government financial reporting provides useful information for report users in assessing accountability and making decisions on economic, social and political decisions by:

- a. providing information about whether the current period's revenues are sufficient to finance all expenditures.
- b. provide information on whether the means of obtaining economic resources and their allocations are in accordance with the stipulated budget and laws and regulations.
- c. provide information regarding the amount of economic resources used in the activities of the Regional Government and the results that have been achieved.
- d. provides information on how the Local Government funds all of its activities and meets its cash needs.
- e. provide information on the financial position and condition of the Regional Government in relation to the sources of revenue, both short and long term, including those from tax collection and loans.
- f. provides information about changes in the financial position of the Regional Government, whether it has increased or decreased, as a result of activities carried out during the reporting period

### 2. Previous Research

Researchs related to remaining nearer to zero came from a study entitled *Earnings Management Around Zero: A motivation to local politician signaling competence* written by Augusta Ferreira, João Carvalho & Fátima Pinho. In this study, the conclusion is that local politicians are motivated to manage income through the desire to show a high level of competence with the aim of re-election. In general, the results obtained are consistent with agency theory (Ferreira, Carvalho, & Pinho, 2013).

The following research entitled *Local Governments' Earnings Management: Greek and Italian Evidence* written by Sandra Cohen, Marco Bisogno and Ioanna Malkogianni aims to examine earnings management practices in local governments, with a focus on two Mediterranean countries, namely Greece and Italy which have administrative systems that comparable. According to public choice theory, the conflicting interests of politicians pursuing re-election and voters monitoring politicians' actions to assess their alignment with social welfare create fertile ground for earnings management practices. The findings from the analysis evidence that the local government is involved in revenue management (Earning management), the main factor is the election cycle, especially in the case of the Greek Municipal Government (Cohen, Bisogno, & Malkogianni, 2016).

Another study entitled "*Financial Performance Management At Local Governments In The Netherlands*" written by Halima Gaddour stated that first, local governments use accruals for the purpose of generating and reporting small surpluses. Accrual discretion will increase when there is a budget deficit situation (Gaddour, 2012).

In another study, entitled *Earnings Management toward Zero: Evidence from Japanese Private Colleges and Universities* conducted by M. Kuroki examined whether managers manage earnings in non-profit organizations, particularly Japanese private colleges and universities (M. Kuroki, 2018). *private colleges Japanese & universities* have special discretionary capital expenditure items which allow managers *private college & university* to adjust income more easily. Expect that income management at Japanese *private colleges & universities* exists to reduce earnings more than previous research from nonprofit organizations found because private colleges & universities administer this item frequently and have different stakeholder incentives (students and government). By testing 2,973 *private colleges & universities* from 2009 to 2013 and by using income distribution analysis. This study finds evidence of earnings management close to zero to avoid losses, and strong evidence of income reduction decisions by private colleges & universities. These results indicate that *private colleges & universities* in Japan have incentives to manage income close to zero, especially income reduction incentives, as compared to previous studies. This is in line with research from Leone and Van Horn (2005) describing the existence of earnings management to adjust discretionary accruals to meet a range just above zero in non-profit hospitals since non-profits have loss-avoidance and income-reduction incentives. Previous incentives arose from a detrimental effect on the CEO's reputation or to reduce debt costs, and the latter incentives arose from maintaining the hospital's tax exempt status, collecting donations, or accepting price concessions from third party payers.



Figure 1. Research Previous

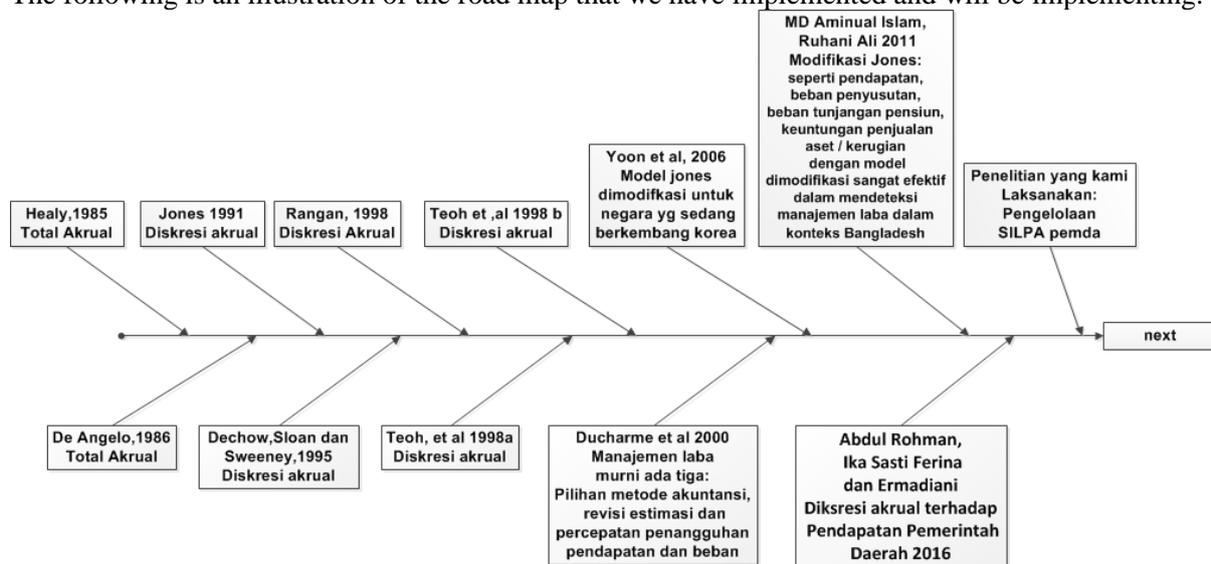
### 3. Road Map

Road Map research that has been and will we execute we can serve as follows:

- 1) 1985 implemented by Healy that examines the total accruals. This early research succeeded in formulating the total accrual calculation formula.
- 2) 1986 by De Angelo  
This year De Angelo succeeded in continuing the previous year's research from Healy. Angelo succeeded in developing the initial formula produced Healy by Jones 1991 Years,
- 3) Jones continued two previous studies and found the definition of accruals and succeeded in formulating accrual discretion well. Jones's research is a milestone in the field of earning management.
- 4) In 1995, Dechow,  
Dechoe, Sloan and Sweeney successfully modified the research of Jones and obtained a new perspective and development of the Jones formula by making modifications.
- 5) Tahun 1998 by Rangan  
Another perspective on the aspect of accruals expressed by Rangan researchers.
- 6) 1998 by Teoh  
Another perspective on the accruals expressed by the researcher Teoh.
- 7) 2000 by Ducharme,

- Ducharme et al. 2000 examined pure earnings management with three variables, namely the choice of accounting method, revised estimates and accelerated deferred income and expenses in 2006 by Yoon
- 8) Model Jones, modified for developing countries, Korea, 2011 by MD Aminul Islam Ruhani Ali MD Aminul Islam, Ruhani Ali 2011 Jones modifications: such as income, depreciation expense, pension benefit expenses, profit / asset sales with modified models are very effective in detecting earnings management in the context of Bangladesh
  - 9) Year 2016, 2017 and 2018 Abdul Rohman, Ika SF and Ermadiani  
Research in Indonesia that has been carried out by Abdul Rohman, Ika Sasti Ferina and Ermadiani is to examine the discretionary accruals of local government revenues.
  - 10) In 2019 Abdul Rohman, Rochmawati Daud, Arista Hakiki  
The Influence of Accrual Discretion, Accrual Level, Opinion and Political Factors on the Management of Local Government SILPA (Efforts to detect SILPA management efforts approach zero)
  - 11) Our research plan:  
Our research will focus on financial distress variables, idle cash, and opinions on SILPA management.

The following is an illustration of the road map that we have implemented and will be implementing:



**Figure 2. Research Road Map**

In the following section we present the research methodology so that this research is more focused and achieves research objectives.

#### 4. Hypothesis

The research framework that we carry out requires a hypothesis to test the model or research framework. For this reason, we compile a hypothesis to test the model or research framework we have compiled. The hypotheses that we compile according to the above model, we will follow them in sequence.

#### The influence of financial distress on the management of local SILPA

Government both the provincial government, district government and municipal governments, carries out work programs with funding from local revenues. Local revenue is used to finance local government expenditures. Receipts and expenses must be managed properly with proper cash management. Cash inequality will generate advantages and disadvantages for the provision of public



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services (work programs). At the end of this period the position of cash and cash equivalents is more than that. Extra cash at the end of the period results in excess budget calculation (SILPA).

Financial distress is the inability of the government to provide public services according to established service quality standards. This is indicated by the value of the DSCR or Debt Service coverage ratio. If the DSCR value is below 2.5, the local government is said to be experiencing financial distress. Meanwhile, if the DSCR value of the Regional Government is above 2.5 then the government's financial strength is strong enough to support government spending. With this explanation, we formulate Hypothesis 1 as follows:

H1: Financial Distress Ratio has a positive effect on SILPA Management.

### **The Effect of Idle Cash on SILPA Management.**

Idle cash is a situation where there is excess cash. Cash in this condition if it exceeds the specified period it will be idle or unemployed. Unemployed cash is not good for the impact on many people who should receive the benefits of public funds in the form of development results which are the realization of local government work programs.

Idle cash if it continues throughout the period will encourage a situation where the remaining cash is more than the budget calculation will increase. This situation will result in increasing the SILPA at the end of the period and remaining over the next fiscal year. Thus, the community does not optimally receive the benefits of cash and cash equivalents because they are deposited in the form of cash and cash equivalents even though they receive current accounts at the bank. With this explanation, we formulate Hypothesis 2 as follows

H2: Idle cash or idle cash (SiLPA) has a positive effect on SILPA management.

### **The influence of Opinion has a positive effect on the management of SILPA.**

Local government financial reports are checked by an independent agency or institution. The BPK is an external and independent audit agency for regional government financial reports. The BPK produces an independent audit report. The resulting opinion can be an *assurance* for the SILPA content in local government financial reports. SILPA value will be normative in the sense that it reflects the balance value of normal accounting figures. Normal in the sense that there is no management of accounting numbers in it according to management motives or in other words a positive impact on SILPA.

If there is an indication of SILPA management and this can be proven by an independent report examination, it will affect the opinion obtained. One of the determinants of opinion is adherence to accounting principles or standards. Adherence to accounting standards is an implementation of the *mandatory rule base*. If an independent auditor gives an opinion that is not optimal, this will have a negative impact on the management of SILPA. This should be avoided. SILPA must be presented and disclosed as is in accordance with the realization of local government operations (positive impact). With the explanation above, we formulate Hypothesis 3 as follows:

H3: Opinions have a positive effect on SILPA management.

### **The influence of financial distress, idle cash and opinion has a positive effect on SILPA management.**

From the description above, we suspect that there is a relationship between the individual variables in each of the independent and dependent variables. We also suspect that financial distress, idle cash and opinion variables will influence SILPA management together. For that we compile Hypothesis 5 as follows:

H4: Financial distress, idle cash and opinions have a positive effect on SILPA management.

From the assumptions we compiled in the formulation of the hypothesis above, in the following section we need to explain the operational variables to support the operationalization of our research.

### 3. RESEARCH METHODOLOGY

#### Data collection techniques Data

Collection in this study was carried out in several ways. The method of collection includes submitting requests for data from the regional government, and the Republic of Indonesia Audit Board and / or Representative Audit Agency in each province. Apart from that, data collection is also done by accessing the official web of the respective parties involved. The data we request from the parties is sent by the parties in physical or softcopy form, while the data we access through the official web can be downloaded from the official website of each party. From the existing data we did a recapitulation and compilation and calculation according to the needs of each research variable.

The type of data we use in this study is secondary data. The data we collect comes from financial report data published by Local Governments. Government financial report data in the form of Budget Realization Report, Operational Report, Cash Flow Report and Balance Sheet. Apart from that, we also use the audit report published by the Financial Audit Agency of the Republic of Indonesia. Audit results report in the form of summary of semester examination results (IHPS). The summary of examination results consists of semester I and semester 2 in each period of the fiscal year. In addition, we will also use local government financial report data published by the Ministry of Finance of the Republic of Indonesia.

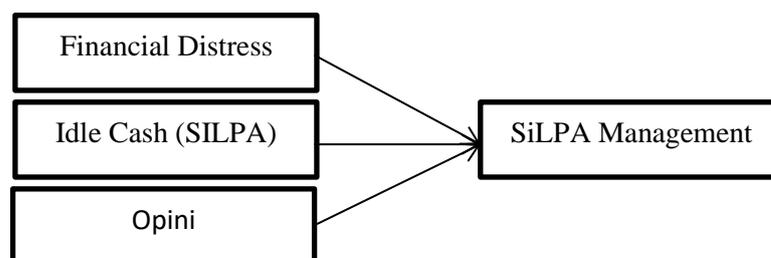
#### Population and Sample

Population Our research is local government. The Local Governments that are the object of our research are the Provincial Governments, District Governments and City Governments. Local governments, both provincial, district and city governments, were the samples of our research, namely local governments in the territory of the Republic of Indonesia. There are 542 regional governments in the territory of the Republic of Indonesia.

The research data is in the form of financial reports in the form of local governments. Windows data are used between 2010 and 2019. The financial reports tested include the Budget Realization Report (LRA) balance sheet, cash flow report (LAK) and operational reports (LO) as well as cash flow reports from Provincial, Regency and City Governments in the Region. South Sumatra. In addition, this study also uses data taken from the summary of research results in semesters 1 and 2 and the Republic of Indonesia Supreme Audit Agency. Financial reports are obtained from the Data Portal of the Directorate General of Fiscal Balance, Ministry of Finance of the Republic of Indonesia.

#### Research Model

The research we conducted used a research framework in the form of testing the effect of variable X (independent) on variable Y (dependent). The independent variables in question are financial distress, idle cash and opinion. While the dependent variable is the local government SILPA. Each variable has a proxy or indicator as a measuring tool to be examined in the research we will carry out. To make it easier to understand our research, we try to compile a research design or model. From the description in the section above, we compile a research model according to the research framework as follows:



**Figure 3. Research Model**

From the picture above, we compile an assumption of the influence of the various variables above.



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### Operational Variables

In this study, the operational variables used include:

#### 4.1 Financial Distress

For this study we used the criteria described on the theoretical basis and background of the above research. The operational variable we will use is the capital expenditure formula in which less than 30% of the total expenditure will be given a dummy 1 as the weight of local governments that have symptoms of financial distress (Ministry of Home Affairs, 2016).

#### 4.2 Idle Cash

According to the explanation on the toeri basis and background, we use the operational idle cash variable in the form of positive cash and cash equivalents. Thus the value of cash and equivalents including the positive rupiah value of local government banks at the end of the period will be weighted as regional governments that have idle cash (Suhanda, 2012).

In terms of regulations, until now there are no regulations that define idle funds. The regulations only define the definition of excess cash. In the Minister of Finance Regulation Number 03 / PMK.05 / 2010 it is stated that excess cash is a condition when the KUN Account occurs and / or it is estimated that the balance of the KUN Account exceeds the need for state expenditures in a certain period after being calculated with the initial balance and SKM. So far, the government actually has idle funds in the form of SAL funds which are sometimes used to cover temporary cash shortages as well as an alternative financing. According to former Finance Minister Bambang PS Brodjonegoro, idle funds are funds placed in banks in the form of demand deposits, deposits and savings. exceeding the need for APBD spending for 3 months (Quoted from <https://www.kemenkeu.go.id/Berita/pemerintah-akan-pantau-dana-idle-di-daerah>). By using the idle fund concept from Bambang PS Brodjonegoro, the definition of idle funds in this study is a fund that is idle for at least 3 months and the amount exceeds all expenses for the next 3 months.

#### 4.3 Opinion

The BPK opinion consists of several levels, namely fair without exception, fair with exceptions, unfair and not giving an opinion (BPK, 2017). Opinions on local government financial reports are measured using a nominal scale from the opinion obtained by each local government on the examination of local government financial reports. Opinions have levels of 5.1 for the lowest to 5 for the highest.

#### 4.4 SILPA Management SILPA

Management is measured using a multiple model approach from the accrual discretionary calculation. SILPA management is indicated by the value generated from the accrual discretionary calculation using several accruals secreted models. The models we use include Healy, Angelo, Leone and Dechow. In general, these models if they produce a positive accrual discretion value, it means that there is a management of SILPA.

The following are some of the operational variables that we use in this study, total accruals (ACCR). Total accruals are the difference between net cash flows from local government operational activities in a certain year period and a surplus or deficit (Jones, 1991). Net Cash Flow Operation (COFO) is the net cash value of cash flows from the operational activities of certain local governments and in certain years (Subramanyam & Wild, 2010). Surplus / Deficit (Dy) is the difference between revenue and expenses on local government (Perrin & Whiteoak, 1993). Accrual level, is the level of accrual application in a local government financial report.

Our study measures management accounting figures (Earning Management) with several variables contained in several equations that have been found by previous researchers. So that we can measure management accounting numbers, it is necessary to distinguish the constituent variables. First, accruals from normal activities of an entity (called accruals expected). These accruals resulted from



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the management activities of the Regional Government which were not distorted by accounting number management practices. Second, accruals from management practice accounting numbers (called abnormal accruals). Abnormal accrual (ABNACCR) is an accrual value in which there is a discretionary practice of local government management accruals. Since abnormal accrual is anvariable *unobserve*, we calculate it using the abnormal accrual formula which is the difference between total accruals (ACCR) and expected accruals (EXPACCR) which is denoted as follows:

$$\begin{aligned} \text{ABNACCR}_{jt} &= \text{ACCR}_{jt} - \text{EXPACCR}_{jt} \text{ or} \\ \text{EXPACCR}_{jt} &= \text{ACCR}_{jt} - \text{ABNACCR}_{jt} \end{aligned} \quad \text{..... (1)}$$

Where:

ABNACCR = Abnormal accruals      j = shows the observed entities j  
 ACCR = Total accruals (ACCR),      t = years t  
 (EXPACCR) = Expected

AccrualsTotal accruals can be measured using items on the balance sheet or items on cash flow statement. The above equation uses balance data. This has weaknesses as stated by previous researchers, namely Hribar and Collins. Hribar and Collins found that the frequency and magnitude of errors were caused by using accrual-based balance data to calculate accrual values, thus suggesting the use of accruals to be taken or using data in other financial reports, namely cash flow statements (Hribar & Collins, 2002).

Therefore, we measure the total accruals from the cash flow statement as follows:

$$\begin{aligned} \text{ACCR}_{jt} &= -\text{DY}_{jt} + \text{COFO}_{jt} \text{ or} \\ \text{ACCR}_{jt} &= \text{COFO}_{jt} - \text{Dy}_{jt} \end{aligned} \quad \text{..... (2)}$$

Where;

DY<sub>jt</sub> = Surplus (deficit) for local government j in year the remaining (less) excess is obtained from the difference between the surplus (deficit) plus net financingnet  
 COFO<sub>jt</sub> = cash outflow from local government operating activities j in year t.

Expected accrual (EXPACCR) is an estimate of accruals using avariant *cross-sectional* of the Jones model and the modified Jones model (Dechow & Sweeney, 1995). This model has been widely used and tested for the private sector (DeFond, 1994). From the private sector, they have also been used by Leone and Van Horn to detect management accounting numbers in US non-profit hospitals (Leone & Van Horn, 2005) using the following equation:

$$\begin{aligned} \text{ACCR}_{jt} &= \beta_0 + \beta_1 (\text{REV}_{jt} - \text{REV}_{jt-1}) + \beta_2 (\text{PPE}_{jt} - \text{PPE}_{jt-1}) + \beta_3 \text{B}_{jt} \text{ or} \\ \text{B}_{jt} &= \text{ACCR}_{jt} - [\beta_1 (\text{REV}_{jt} - \text{REV}_{jt-1}) + \beta_2 (\text{PPE}_{jt} - \text{PPE}_{jt-1})] \end{aligned} \quad \text{..... (3)}$$

Where,

B<sub>jt</sub> = Level Discretionary accruals at agency j year t  
 ACCR<sub>jt</sub> = Total accruals for local government j in year t  
 REV<sub>jt</sub> = Change in revenue from local government services j in year t,  
 PPE<sub>jt</sub> = Gross tangible fixed assets for local government j in year t, and  
 TA<sub>jt-1</sub> = Total assets for local government j in year t

Assuming REV<sub>jt</sub> is used as the control for the normal level of working capital accruals related to revenue from services, and PPE is the control variable for normal rates of amortization and accrual depreciation expense. This is in line or consistent with previous literature, and to reduce estimation problems, all variables are scaled by *the asset lag*.

We also estimate expected accruals using a modified Jones model (Dechow & Sweeney, 1995). This model is a control model for earnings management due to an abnormal increase in the Budget Calculation Suplus (deficit), with the assumption that all changes in local government services that are credit or payable (thus giving rise to accounts receivable to local governments) are due to these earnings management (accounting figures). The equation used as a modified form of the Jones equation is as follows:

$$\begin{aligned} \text{ACCR}_{jt} &= \beta_0 + \beta_1 (\text{REV}_{jt} - \text{REV}_{jt-1}) + \beta_2 (\text{PPE}_{jt} - \text{PPE}_{jt-1}) + \beta_3 \text{B}_{jt} \text{ or} \\ \text{B}_{jt} &= \text{ACCR}_{jt} - [\beta_1 (\text{REV}_{jt} - \text{REV}_{jt-1}) + \beta_2 (\text{PPE}_{jt} - \text{PPE}_{jt-1})] \end{aligned}$$



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$$AR_{jt}TA_{jt-1} + \square 2 (PPE_{jt}TA_{jt-1}) \dots\dots (4)$$

Where  $AR_{jt}$  = Change in receivables (debtors) for local government  $j$  in year  $t$ .

It is expected that the accruals of each local entity (Local Government) are obtained from the estimation model (equation [3] and [4]). Finally, the abnormal accruals ( $ABACCR_{jt}$ ) are calculated as in equation [1]. Accruals that are abnormally positive (imply local government management uses an accrual-secreted strategy) which causes the surplus (deficit) to increase, while abnormal accruals are negative (implying that local government management uses an accrual discretionary strategy) which causes the surplus (deficit) to decrease.

To test earnings management, regardless of whether the local entity follows a surplus (deficit) strategy of increasing budget (revenue) or decreasing income, we use absolute abnormal accruals (Warfield & Wild, 1995).

By using the formulas or equations from Jones and modified Jones above, we will be able to test the effect of the various variables above (independent) and the local government SILPA management variable (dependent).

## 5. Data Analysis

Our research will examine the effect of the independent variable and the dependent variable, we will use a regression equation. For this reason, the data obtained will be analyzed using a regression approach. The regression used is multiple regression because this study uses more than one independent variable. We will use an analysis tool in the form of SPSS version 23.

## 4. RESULTS AND DISCUSSION

The data obtained has been processed using a multiple regression approach using an application or data processing tool in the form of SPSS 23. The results of data processing from the research are displayed sequentially as follows:

### Descriptive statistics

Description of the research variables that we use using SPSS can be presented in the following table:

**Table 1. Descriptive Statistics**

	N	Range	Min	Max	Sum	Mean		Std. Deviation	Variance
	Stat	Stat	Stat	Stat	Stat	Stat	Std. Error	Statistic	Statistic
Opini	542	2.94	1.00	3.94	1572.90	2.9020	.02668	.62107	.386
DSCR	542	1.07	2.78	3.85	1993.16	3.6774	.00771	.17945	.032
SILPA	542	2.67	1.52	4.19	1737.69	3.2061	.02090	.48652	.237
SiLPA	542	1.86	1.12	2.98	1208.68	2.2300	.01805	.42011	.176
Valid N	542								

Source: SPSS Output

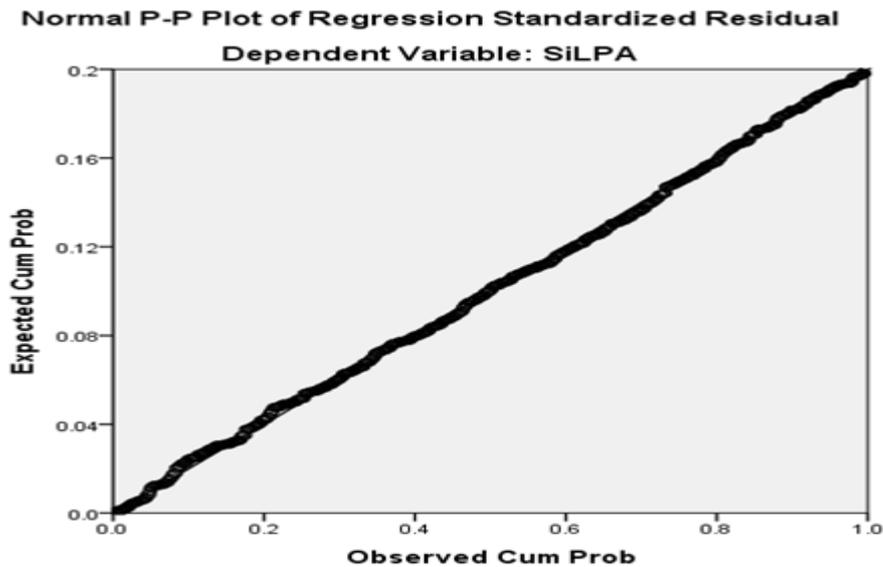
Data from the study amounted to 542 regional governments. Local Government consists of Provincial Government, Regency Government and City Government. Minimum opinion 1 value and the highest is 3.94. The lowest DSCR value was 2.78 and the highest was 3.85, while SILPA had the lowest score of 1.52 and the highest was 4.19. The lowest SiLPA value was 1.12 and the highest was 2.98.

### Data Normality Test

Normality Test is conducted to determine whether the data can be normally distributed or not. The normal probability plot test or the P-Plot test is an effective alternative to detect whether the regression model to be analyzed is normally distributed or not. For this normality test technique is carried out on the residual value in the regression model. A good regression model has a normal residual value. To see the normality, this is done by looking at the plot points of the SPSSs output and

seeing whether the plot points are around the diagonal line or not. The provisions for the normal probability plot test are:

1. If the points or data are near or follow the diagonal line, it can be said that the residual value is normally distributed
2. If the points move away or scatter and do not follow the diagonal line, then this indicates that the residual value is not normally distributed.

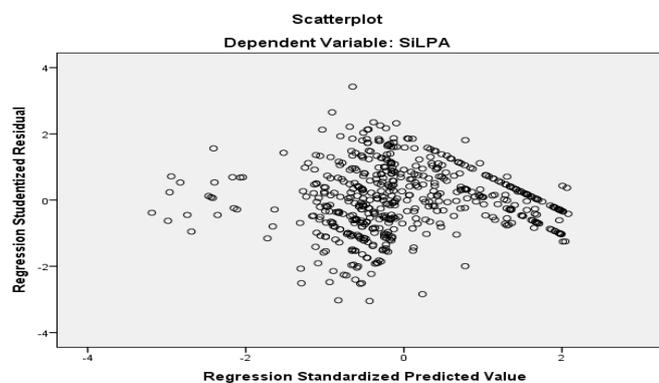


**Figure 4. Normal P-Plot**

From the P-Plot chart above, it appears that the dots spread out between the diagonal lines. This shows that the data can be said to have a residual value that is normally distributed.

### Heteroscedasticity Test

Heteroscedasticity Test using SPSS is a classic assumption test which is a requirement for linear regression analysis. Heteroscedasticity test in regression is used to determine the variation of the regression summary (whether there is an inequality of variance from the residuals in an observation from the regression model) A good regression model is symptom-free or heteroscedastic disorder. Heteroscedasticity testing is carried out by several methods, namely the scatter plot and glesjer. Heteroscedasticity testing with the scatter plot chart method is carried out by following the stipulation that if the data forms a certain pattern such as wobbling, narrowing then widening points, it can be concluded that there is an indication of heteroscedasticity disturbance, but if the data does not form this pattern and the points spread at the top and below the number 0 on the Y axis point, it can be concluded that there is no heteroscedasticity disorder.



**Figure 5. Scatterplot**



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### Multicollinearity

Test Multicollinearity test is a classic assumption test (normality and heteroscedacity) in multiple regression analysis. The purpose of using the multicollinearity test is to test whether the regression model found a correlation (strong relationship) between independent variables or independent variables. A good regression model should not have a correlation between free variables or there is no multicollinearity symptom. To detect the presence or absence of multicollinearity symptoms in a regression model can be done in several ways, namely looking at the correlation value between independent variables, viewing the condition index and eigenvalues, looking at the tolerance value and variance inflating factor (VIF). Guidelines for decisions based on tolerance values are if the tolerance value is greater than 0.10, it means that there is no multicollinearity in the regression model, but if the tolerance value is smaller than 0.10, it means that there is multicollinearity in the regression model. VIF value-based decision guidelines. If the VIF value is smaller than 10, it means that there is no multicollinearity in the regression model, but if the VIF value is greater than 10, it means that there is multicollinearity in the regression model.

**Table 2. Collinearity Value**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Opini	.831	1.2
DSCR	.831	1.2
SILPA	.821	1.2

From the table the value of collinearity above the tolerance value is greater than 0.10, it means that there is no multicollinearity in the regression model and the Vif value is less than 10 which means there is no multicollinearity.

### Regression Equations

Furthermore, we can reach the results of regression analysis processing from the data we obtained. Multiple linear regression analysis is used to determine whether there is an effect of the independent variable on the dependent variable. Our research objective is the influence of the (*independent variable*), namely opinion ( $X_1$ ), DSCR ( $X_2$ ), SILPA ( $X_3$ ) on the *dependent variable*, namely SiLPA ( $Y$ ). And the regression equation can be formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where:

$Y = \text{SiLPA}$ ,  $a = \text{Constants}$ ,  $b_1, b_2, b_3 = \text{coefficient of determination}$

$X_1 = \text{Opinion}$ ,  $X_2 = \text{DSCR}$ ,  $X_3 = \text{SILPA}$ ,  $e = \text{Error}$

To read from the SPSS results against the regression equation is to look at the spss output in the "Coefficients" table.

**Table 3. Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1 (Constant)	-.428	.249	
Opini	.043	.021	.063
DSCR	.167	.074	.071
SILPA	.599	.027	.694

Source: SPSS data

Based on the table above, the following regression formula is based on the research model:

$$Y = -0.428 + 0.43 X_1 + 0.167 X_2 + 0.599 X_3 + e$$

The interpretation of the regression above is as follows:

1. Constant (a)



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This means that all variables free has a value of zero (0) then the value of the dependent variable (Silpa) is 0.428.

### 2. Opinion ( $X_1$ ) on SILPA (Y) The

value of the opinion coefficient for variable  $X_1$  is 0.43 and is positive, this indicates that the accruals expression has a direct relationship with SILPA. This means that every one unit increase in opinion, the SILPA variable (Y) will increase by 0.43 units, assuming that the other independent variables of the regression model are fixed.

### 3. DSCR ( $X_2$ ) to SILPA (Y) The

value of the DSCR coefficient for variable  $X_2$  is 0.167 and is positive, this indicates that the accruals expression has a direct relationship with SILPA. This implies that every one-unit increase in DSCR, the SILPA (Y) variable will increase by 0.167 units, assuming that the other independent variables of the regression model are fixed.

### 3. SiLPA ( $X_3$ ) to SILPA (Y)

The SiLPA coefficient value for variable  $X_3$  is 0.599 and is positive, this indicates that SiLPA has a direct relationship with SILPA. This implies that every one-unit increase in SiLPA, the SILPA (Y) variable will increase by 0.599 with the assumption that the other independent variables of the regression model are fixed.

### Testing the Influence of Variables with the t

T Test is used to determine whether the independent variables partially have a significant effect on the dependent variable or not. The degree of significance used is 0.05. If the significant value is less than the degree of confidence, then we accept the alternative hypothesis, which states that an independent variable partially affects the dependent variable. The t test analysis is also seen from the "Coefficient" table above.

**Table 4. Coefficients**

Model	t	Sig.
1 (Constant)	-1721	.086
DSCR	2.264	0.24
SiLPA	21.936	.000
Opini	1.999	0.46

Source: SPSS data processing

Based on the coefficients table above, several things can be understood as follows:

#### 1. DSCR ( $X_2$ ) to SILPA (Y)

The first hypothesis states that a high DSCR will affect SiLPA management. It can be seen that the sig value for Opinion is 0.24 . The sig value is greater than the probability value of 0.05, or the value of  $0.24 > 0.05$ , then  $H_1$  is rejected and  $H_0$  is accepted. So it can be concluded that the DSCR variable has no effect on SiLPA. The DSCR indicator value has no effect on the SILPA management or management variable

#### 2. SiLPA ( $X_3$ ) against SILPA (Y)

It can be seen that the sig value of SiLPA is 0.00. The sig value is smaller than the probability value of 0.05, or the value of  $0.00 < 0.05$ , then  $H_1$  is accepted and  $H_0$  is rejected. A positive t value indicates that SILPA has a one-way relationship with SiLPA. So it can be concluded that the SiLPA variable has a significant effect on SILPA. This shows that the remaining excess of last year's calculation (SiLPA) has an influence on the management of the remaining calculation for the current year (SILPA0)

#### 3. Opinion ( $X_1$ ) towards SiLPA (Y)

The first hypothesis states that opinion has a positive effect on SILPA management or earning management. The results of data processing can be seen in the column, *Coefficients* there is a sig value of 0.046. The sig value is greater than the probability value 0.05, or the value  $0.46 > 0.05$ , then  $H_1$  is rejected and  $H_0$  is accepted. So it can be concluded that the opinion variable has no



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effect on SiLPA or is negative. Thus, a high opinion will not necessarily cause a high SILPA. Or in other words, a high opinion will cause the low management of SILPA

### Simultaneous Variable Testing with the F Test

The F Test was used to determine whether the independent variables simultaneously had a significant effect on the dependent variable. The degree of confidence used is 0.05. If the calculated F value is greater than the F value according to the table, then the alternative hypothesis, which states that all independent variables simultaneously have a significant effect on the dependent variable. The analysis of the SPSS output can be seen from the "Anova" table, as follows:

**Table 5. ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	53.258	3	17.753	226.190	.000 <sup>b</sup>
Residual	42.225	538	.078		
Total	95.483	541			

a. Dependent Variable: SiLPA

b. Predictors: (Constant), SILPA, DSCR, Opini

Based on the simultaneous testing of X1, X2, X3 and X4 against Y, the interpretation is as follows: From the table, it is obtained that the F value is  $F_{\text{calculated}} = 226.190$  with a probability value (sig) = 0.000.  $F_{\text{value count}} = 226.190 > F_{\text{table}} = 1.16$ . and the sig value. smaller than the probability value of 0.05 or the value of  $0.000 < 0.05$ ; then  $H_1$  is accepted, meaning that together (simultaneously) Opinion, DSCR and SiLPA have a significant effect on SILPA and  $H_0$  is rejected or opinion, DSCR and SiLPA together do not have a significant effect on SILPA.

### Model Testing with the Coefficient of Determination ( $R^2$ )

The coefficient of determination is used to determine how much the relationship between several variables in a clearer sense. The coefficient of determination will explain how much change or variation in a variable can be explained by changes or variations in other variables (Santosa & Ashari, 2005: 125). In everyday language, it is the ability of the independent variable to contribute to the fixed variable in percentage units.

The value of this coefficient is between 0 and 1, if the result is closer to 0, it means that the ability of the independent variables to explain the variation of the variable is very limited. But if the results are close to number 1, it means that the independent variables provide almost all the information needed to predict variations in the dependent variable. This is according to the grouping of the strength of the relationship between the two variables, namely if the coefficient value = 0, it means that there is no correlation between the two variables, if the coefficient value is  $> 0 - 0.25$ , it means that the correlation is very weak, if the efficiency value is  $> 0.25 - 0.5$  then it means the correlation is sufficient, if the coefficient is  $> 0.5 - 0.75$  then the correlation is strong, if the coefficient is  $> 0.75 - 0.99$ , the correlation is very strong as long as if the coefficient is 1 then the correlation is perfect (Budi Purbayu Santosa, 2005). The analysis using the SPSS output can be seen in the "Model Summary" table.

**Tabel 6. Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.747 <sup>a</sup>	.558	.555	.28015	.558	226.190	3	538	.000



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Based on the model summary table above, it appears that the model has a strong relationship between the dependent variable and the independent variable. This can be seen from the value of R Square and Adjusted R Square of 55.5%. The value of 55.5% indicates that the relationship of the independent variables (Opinion, DSCR and SiLPA) can be explained with a power of 55.5 and the remaining 44.5 is explained by other factors that we did not examine. Independent variables consisting of opinion, DSCR and SiLPA have a strong relationship to SILPA. Because the value of R Square or the coefficient value is more than 0.5 and less than 0.75, it means that the correlation is strong, it can be concluded that the ability of the independent variables in explaining the variation of the variable is strong. This is in accordance with Jonatan Sarwono's income in the book on quantitative and qualitative research methods in 2006 (Jonathan, 2006).

### 5. CONCLUSION

With the data we obtained and using the help of the SPSS version 23 processing tool, we can draw some conclusions. Based on the discussion of the research results in the previous section, we can conclude several important things. The model used can represent the object of the research being researched. The model used has a strong or significant relationship value between the independent variable and the dependent variable.

The independent variable opinion, DSCR and SiLPA simultaneously have a strong relationship or relationship with the dependent variable, namely SILPA. The direction of the relationship between the opinion variables, DSCR and SiLPA with SILPA is positive. This means that if the opinion, DSCR and SiLPA increase or increase, the SILPA will also increase or increase.

In other words, the better the opinion obtained, the better the DSCR level and the bigger SILPA that will influence or indicate the presence of local government management interference in the bigger SiLPA management.

However, partially or individually, only SiLPA has a positive influence on SILPA. DSCR or financial distress and opinion did not have a positive effect on SILPA. Financial distress as represented by the DSCR indicator does not show the same direction as SILPA management. This is different from the opinion variable. Even though it does not have a positive effect, opinions actually have an effect in the opposite direction from the results of existing data processing. High opinion causes low SILPA management. This shows that if the inspection is effective it will be able to suppress SILPA management practices at the end of the year.

Budget realization in local governments still tends to be *slow back loaded* which means that from January it moves slowly towards the end of the year. The pattern of completion of expenditures from programs and activities is greater at the end of the year, seen from the realization of budgets in local governments due to the realization of cash inflows or revenues which also tend to be higher towards the end of the year.

This situation encourages the remaining cash at the end of the year which tends to increase due to various factors, including the failure to implement program activities, natural factors, and the desire of the local government to make it the remaining budget for funding the following year.

### LIMITATIONS AND STUDY FORWARD

Research has limitations on the use of data windows that have not yet arrived in the 2020 fiscal year. This is because the 2020 audit report has not yet been completed and has not been published. So, with this limitation, the conclusions we get cannot be generalized to a longer Wakyu scale.

The suggestions that we can convey include the need to include other more appropriate variables. Another suggestion is that we consider the level of accruals and regional government management



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discretion to be used at the same time as independent variables. This is because the value of the influence of the non-predictive variable is still quite large, namely 44.5%.

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## ANALYSIS OF FACTORS THAT AFFECT THE YIELD OF SHARIA BONDS (*SUKUK*) IN COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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### Abstract

This study aims to determine the effect of inflation, exchange rates, maturity period, bond ratings, company size, and return on assets which are independent variables on sukuk yields as the dependent variable. This study uses a sample of sharia-based corporate bonds listed on the Indonesia Stock Exchange (IDX) and rated by Pefindo during 2012-2016, while exchange rate and inflation data are data published by Indonesian banks. This study uses a purposive sampling method and the analysis technique used is the test of multiple regression analysis using the SPSS application. The results obtained are that the independent variable of inflation, exchange rate, maturity and sukuk rating does not affect the yield of sukuk. Whereas the independent size of the company (firm size) and return on assets have an effect on the dependent variable of the sukuk yield.

**Keyword:** *Bond yield, inflation, exchange rate, term to maturity, bond rating, firm size, and return on assets*

### 1. INTRODUCTION

As a country with a majority population of Muslims, Indonesia has great potential as a center for the development of world Islamic finance including the Islamic capital market as a place to carry out investment activities. Investment is the placement of a number of funds at this time in the hope of gaining profits in the future (Halim, 2005: 4). Investment is divided into two types, namely investment in real assets and financial assets. Investment in real assets means investing in goods such as machinery, buildings and land. While investment in financial assets means investment in the sector, both those traded in money markets and capital market securities. There are three attributes inherent in investment, namely risk, yield and time. The sacrifice of economic resources in investments is carried out now with the aim of getting results, or increasing welfare in the future and uncertain (risky).

Investment is one of the muamalah activities that is taught in the Islamic concept because it makes property owned more productive and brings benefits to individuals and broader economic growth. Recommendations in Islam to carry out investment activities can be understood from the Al-Qur'an against the prohibition of hoarding activities owned, namely the assets owned must be rotated in the economy in the productive sector in order to produce benefits because the assets piled up will be subject to zakat if not played. This Islamic capital market has three types of products issued, namely Islamic mutual funds, Islamic stocks better known as the Jakarta Islamic Index (JII), and Islamic bonds (*sukuk*).

*Sukuk* or Islamic bonds are securities as investment instruments issued based on an underlying transaction or syaria'h cash, which can be *ijarah* (rent), *mudharabah* (profit-sharing), *musyarakah*, or others. The development of *sukuk* in Indonesia itself began to appear in 2002 with the issuance of PT. Indosat Tbk by using the *mudharabah* structure worth Rp.100 billion. This *sukuk* experienced double oversubscribed to become Rp.175 billion (Endri, 2011). And continued conventional non-bank companies that participated in issuing these Islamic bonds, among others, PT. Matahari Putra Prima (since 2004), PT. Indofood (since 2004) and PT. PLN (2007) until December 2016 the number of companies issuing bonds amounted to 18 companies and 53 issuances with total value of emissions reaching 11.87 Trillion Rupiah.



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Every investor who invests funds will expect results or returns from his investment, without forgetting the investment risk factors that must be faced. Return is one of the factors that motivates investors to invest their funds and is also a reward for the courage of investors to bear the risk of investments made (Windy, 2017). In term bonds to describe the return generated by bonds are bond yields. YTM can be interpreted as the level of compound return that investors will receive if they buy bonds at current market prices and hold them to maturity. YTM is a widely used performance measure because the return reflects the return on the composite rate of return expected by investors. The first assumption is that investors will hold bonds until they mature. The value obtained is often called if the first hypothesis, YTM, is fulfilled. The second assumption is that investors reinvest earned income from YTM bonds at the product level (Tandelilin, 2010). Bond yield is a measure of bond income that investors will receive and tends to be non-permanent. In other words for certain yield changes, changes in price levels will be greater at lower yields than at high yields (Kusuma and Asrori, 2005). If the yield to maturity is higher than the yield to maturity deemed appropriate, bonds are said to be underpriced (undervalued) and are one candidate to buy. Conversely, if yield to maturity is lower than what is deemed appropriate, bonds are said to be overpriced (overvalued) and are candidates for sale (Sharpe, et al., 2005). Therefore issuers and investors must pay attention to bond market prices that always fluctuate because of selling activities buy from investors and are influenced by changes in the magnitude of macroeconomic variables such as inflation rates, interest rates, economic growth, exchange rates and others (Riska, 2013).

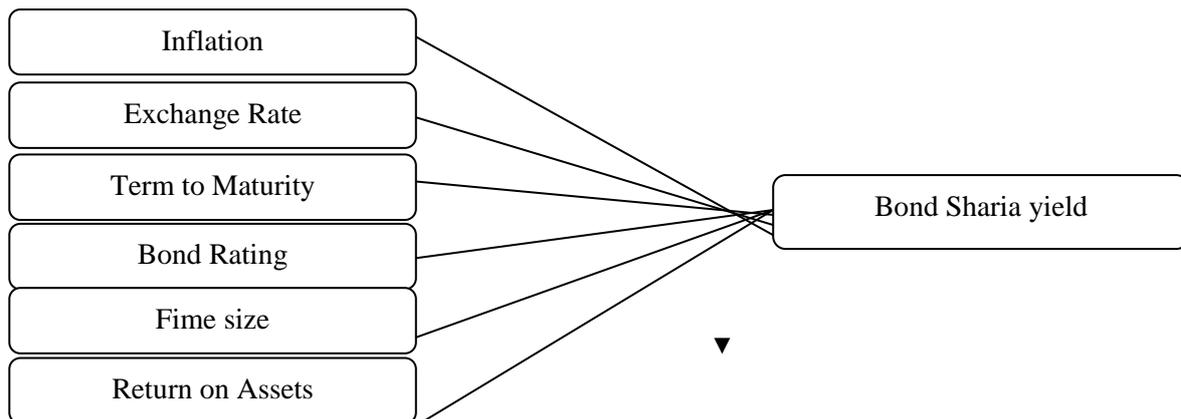
According to Paisarn (2012), there are several factors that influence bond yields, namely external factors, bond characteristics and company internal factors. External factors that need to be considered are macroeconomic factors such as inflation and exchange rates. Inflation is an event that shows an increase in the price level in general and takes place continuously, while the exchange rate or foreign exchange rate can also be defined as the amount of domestic money needed, namely the amount of rupiah needed to obtain a unit of foreign currency. Another influential factor is the characteristics of bonds. One of the characteristics considered by investors is the age of bonds and bond ratings. Bond age (maturity) is the difference between the date of a bond issued (listing date) by the issuer up to the maturity date of the bond (term to maturity). Bond rating (bond rating) is one of the characteristics of bonds that must be considered by investors in buying bonds. This is because bond ratings show the quality of bonds reflected in the risk of bonds. Bond rating is also a default measure that has a direct and measurable effect on the company's capital costs and bond interest rates The company's internal factors are also measured by company size and in terms of profitability. The focus of this ratio is on the final result or net income. There are three ratios in profitability, namely profit margin, return on assets, return on equity (Ross et el, 2015, Windy Fauzani 2017). Return on assets is a measure of profit generated for each company asset. ROA is also a comparison of net income compared to the total assets of the company.

Growing companies have hopes of developing and generating profits so that they can be used to pay bonds principal and interest smoothly because of the maturity of the bonds in the long term. With the development of this company the credibility will feel safe because the company produces profits that are used to pay the principal and interest on the bonds smoothly (Immaulata and Restuti, 2007). The size of the company is a scale which can be classified as small in size according to various ways, including total assets, log size, stock market value, etc. (Brigham and Houston, 2010).

Summary results: binding and binding obligations, binding, disassembly and disassembly work for children and women in the world. , Mais l'inverse est obtenu dans Lidya (2010) and Sam'ani (2009), quite often meeting with varying levels of inflation and efficiency, and binding obligations. Les recherches menées par Surya et Nasher (2011) and Hutajulu (2008) in Monte de la Tau de la Sall de la River de la Es-es-Positive, significant for the last terms retaliation, without fail, without fail, 2009 The variable du taux de change on un incident is negative. et effet visibleetif sur les rendements required. Selon Lidya (2010), mandatory for mandatory use. Une autre étude, isnaini (2013), indique que les notations des actual obligations. Les recherches menées par Khurana et Raman (2003), representing

the interests of entrepreneurs and public servants. Cependant, les résultats de cette, concrent pas avec ceux d'une recherche menée par Setya Purnama (2005), with a complete and definitive answer to all questions concerning binding documents. The study Selon Yuni (2013), on the relationship of profitability and welfare, as well as to the mandatory cancellation of the terms of the lease. Les résultats de cette etude sont différents de ceux de Rahayu et al. (2013) montrent que la rentabilité and un effet négatif meaningful for mandatory failures.

Based on the description that has been explained, the framework of thinking in this study can be described as follows



**Figure 1. Framework of thought**

From the above framework, the hypothesis is obtained

1.  $H_{01}$ : Inflation does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).  
 $H_{a1}$ : Inflation has a positive effect on Yield of Sharia Bonds (*Sukuk*).
2.  $H_{02}$ : Exchange Rate does not have a positive effect on Yield of Sharia Bonds (*Sukuk*)  
 $H_{a2}$ : Exchange Rate has a positive effect on Yield of Sharia Bonds (*Sukuk*).
3.  $H_{03}$ : Term to Maturity does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).  
 $H_{a3}$ : Term to Maturity has a positive effect on Yield of Sharia Bonds (*Sukuk*).
4.  $H_{04}$ : Bond Rating does not have a positive effect on Yield of Sharia Bonds (*Sukuk*)  
 $H_{a4}$ : Bond Rating has a positive effect on Yield of Sharia Bonds (*Sukuk*)
5.  $H_{05}$ : Fime Size does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).  
 $H_{a5}$ : Fime Size has a positive effect on Yield of Sharia Bonds (*Sukuk*).
6.  $H_{06}$ : Return on Asset does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).  
 $H_{a6}$ : Return on Asset has a positive effect on Yield of Sharia Bonds (*Sukuk*).

## 2. RESEARCH METHODOLOGY

The type of data used in this study is a secondary data type, which is a monthly data from January 2012 to December 2016. The source of data is the Indonesian Stock Exchange (IDX) website and the Bank of Canada website. Indonesia, IBPA, Pefindo, BAREKSA and financial reports. In this study, all listed Islamic bonds are traded on the Indonesian Stock Exchange (IDX) from 2012 to 2016 using a targeted sampling method based on certain criteria. Criteria for the sample:

1. Islamic bonds (*Sukuk*) that are listed and traded from the beginning of 2012 to 2016..
2. Islamic bonds (*Sukuk*) are still outstanding or have not yet matured so that data on the applicable bond prices can be obtained.



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3. Sharia Bond Issuance Company (*Sukuk*) is registered in the rating of bonds issued by PEFINDO within the period of the Study consistently.
4. Companies that issue Islamic bonds have complete financial statements during the study period.

The results obtained from the sample criteria are 18 companies with the number of *sukuk* issued by the company totaling 42 *sukuk*. The dependent variable used in this study is Sharia Bond Yield (*Sukuk*) by measuring the rate of return (yield) of bonds when bonds are first sold to the public, while the independent variable in this study is the first inflation and the data used in the study is level data inflation in Indonesia is expressed in percent. The second is the exchange rate (exchange rate) and the data used is the final value of the end of month selling rate for the period of 2012 to 2016. The third is the age of Shari'ah bonds and the data used is a dummy variable with code 0 if the bonds are above (5 years) , code 1 if the bond is under (5 years). The fourth is the Syaria'h Bond Rating and the data used is the Syari'ah (*sukuk*) bond rating data issued by PT. PEFINDO. Measurements for this variable are done by giving a value of 2 for bonds that are high investment, 1 for bonds classified as middle investment, and 0 for bonds with low investment. The independent variable of this study is a dummy variable. The fifth is the size of the company and the data used is the value of natural logarithms (LN) of the total assets owned by the company. The sixth is return on assets (ROA) as a proxy for profitability, and the data used is the ratio obtained from the annual financial statements published by the *Sukuk* Publishing Company.

### 3. DATA ANALYSIS METHOD

Conducting Multiple Regression Tests Effect of Factors on Syari'ah Bonds (*Sukuk*) Yields on Companies Listed on the Indonesia Stock Exchange.

#### Classic Assumption Test

##### Descriptive Statistics

This analysis is used to provide an overview and description of a data seen from the mean, maximum, minimum, and standard deviation values.

##### Normality Test

The purpose of the normality check is to check whether the residual mixture variable in the regression model has a normal distribution. It is known that tests T and F assume that the residual value corresponds to a normal distribution. If this assumption is violated, the statistical test becomes invalid for a small number of samples. There are two ways to determine if the residuals are normally distributed, namely: graphical analysis and statistical tests (Ghozali, 2006: 147). In this study, the statistical test that will be used to test the residual normality is the Kolmogorov-Smirnov (K-S) non-parametric statistical test.

##### Autocorrelation Test

The purpose of the autocorrelation test is to determine the correlation between members from a series of observations organized in a series of times or in a series of gaps. To find out if there is an autocorrelation problem in the statistical model used, Durbin Watson. If there is no correlation between the residuals, the residuals are considered random or random. (Ghozali, 2006: 107).

To make a decision whether there is an auto correlation, there are considerations that must be followed, among others :

1. If the DW value is located between the upper limit ( $du$ ) and  $(4-du)$ , then the autocorrelation coefficient = 0, meaning there is no autocorrelation.
2. If the DW value is lower than the lower limit ( $dl$ ), the autocorrelation coefficient is  $> 0$ , meaning there is positive autocorrelation.
3. If the DW value is greater than  $(4-dl)$  then the autocorrelation coefficient  $< 0$ , means that there is negative autocorrelation.
4. If the DW value is between ( $du$ ) and ( $dl$ ) or DW is located between  $(4-du)$  and  $(4-dl)$ , then the result cannot be concluded.



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### Multicollinearity Test

Multicollinearity test aims to test whether the regression model found a correlation between independent variables (Ghozali, 2006: 95). A good regression model should not have a correlation between the independent variables. If the independent variables correlate with each other, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is zero. This study tested multicollinearity based on tolerance value and Variance Inflation Factor (VIF). The regression model that is free of multicollinearity is if the VIF value is  $\leq 10$  and has a tolerance value of  $\geq 0.10$ .

### Heteroscedasticity Test

The aim of the heteroskedasticity test is to check whether the regression model shows an inequality from one residue to another. If the residual variance from one observation to another is conserved, it is called homoscedasticity and, if it is different, it is called heteroscedasticity (Ghozali, 2006: 125). This study tested multicollinearity using the Glaser test.

### Test the Regression Coefficient Statistics

$$Y = \beta_0 + \beta_1 (x_1) + \beta_2 (x_2) + \beta_3 (x_3) + \beta_4 (x_4)$$

Where :

Y = Islamic Bond Yield

$\beta_0$  = Constants

$\beta_1 - \beta_6$  = Independent variable regression coefficient

X1 = Inflation

X2 = Rupiah Exchange Rate against US Dollar

X3 = Term of Bond

X4 = Company Size

X5 = Bond Rating

X6 = Return on Asset

e = Standard Error

### Hypothesis Test

The steps of analysis, testing data and testing hypotheses are as follows:

#### Test F

The F statistical test is used to test whether all the independent variables included in the model have a joint influence on the dependent variable. The results of the test are visible on the ANOVA tableau. If  $\text{valeur sig} \leq \alpha = 0.05$ , it exists from variables not equivocal or from variables that affect the dependent variable (hypothèse alternative formulée est acceptée).

#### T test

Statistical testing of the value of t allows you to determine to what extent the effect of the independent variable is explained by the change in the dependent variable (Ghozali, 2006). The influence of each independent variable on the dependent variable can be seen by the magnitude of the value of p. If the p-value is smaller than the 5% significance level, then the independent variable has a significant effect on the dependent variable.

#### The coefficient of determination (R<sup>2</sup>)

The coefficient of determination is basically to measure how far the model's ability to explain the variation of the dependent variable. The fundamental weakness of using the coefficient of determination is the bias towards a number of independent variables included in the model. Every additional one independent variable, then R<sup>2</sup> must increase regardless of whether the variable has a significant effect on the dependent variable (Ghozali, 2006: 87)

## 4. RESULTS AND DISCUSSION

### Results

This study aims to look at the effect of inflation, the exchange rate and the age of Islamic bonds, Islamic bond ratings, firm size, and profitability on the yield of Islamic bonds on the Indonesia Stock Exchange. Since the data used is in the form of a unit of Rupiah (exchange rate) and in the form of percent (inflation and ROA) so that the value of each variable is different, in addition to facilitating a more efficient estimation, and reducing the risk of multicollinearity, the model the study was transformed into the LOG model.

### Test descriptive statistics

**Table 1. Test of descriptive statistics.**

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
<b>inflasi</b>	31	.48001	.92324	.6315971	.03469162	.19315475
<b>kurs</b>	31	3.98543	4.13972	4.1091822	.00700623	.03900904
<b>umur</b>	31	0	2	1.03	.109	.605
<b>size</b>	31	7.61332	13.29779	10.4638461	.27274340	1.51857100
<b>rating</b>	31	1	2	1.71	.083	.461
<b>roa</b>	31	-.30103	1.00000	.4714410	.06477285	.36063999
<b>yield</b>	31	.86629	1.16613	.9419040	.01091066	.05976014
<b>Valid N (listwise)</b>	31					

**Source: Results of research data processing, 2016**

According to Table 1, the data volume used during the 2012-2016 period is equal to 31 data, the inflation variable (X1) having a maximum value of 0.923242 and a minimum value of 0.48001 . The exchange rate variable (X2) has a maximum value of 4.13972 and a minimum of 3.98543. The Sukuk (X3) age variable has a maximum value of 2 and a minimum of 0. The enterprise size variable (X4) has a maximum value of 13.29799 and a minimum. 7.61332. The variable Sukuk Rating (X5) has a maximum value of 2 and a minimum of 1. The Variable Return on Assets (ROA) (X6) has a maximum value of 1.00000 and a minimum of -0.30103. The variable yield of the Sukuk (Y) crop has a maximum value of 1.16613 and a minimum value of 0.86629.

### Classic Assumption Test

#### Normality Test (One - Sample Kolmogorov - Smirnov)

**Table 2. Normality Test (One - Sample Kolmogorov - Smirnov)**

		residual
N		31
Normal Parameters <sup>a,b</sup>	Mean	.9413
	Std. Deviation	.04266
Most Extreme Differences	Absolute	.133
	Positive	.133
	Negative	-.089
Kolmogorov-Smirnov Z		.738
Asymp. Sig. (2-tailed)		.647

**Source: Results of research data processing, 2016**



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According to Table 2, the Kolmogorov-Smirnov value is 0.647. This value is greater than the value of 0.05 Kolmogorov-Smirnov table. Therefore,  $H_0$  takes  $H_0$ , which indicates that the data from this study are usually distributed.

### Multicollinearity Test (Tolerance and Variance Inflation Factor)

**Table 3. Multicollinearity Test (Tolerance and Variance Inflation Factor)**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
inflasi	.358	2.793
kurs	.656	1.525
umur	.933	1.072
size	.452	2.215
rating	.570	1.753
roa	.595	1.681

Source: Results of research data processing, 2016

Based on Table 3, it shows that there are no independent variables that have a tolerance value of less than 0.10 and also there are no independent variables that have a VIF value of more than 10. This means that the data is free from the symptoms of multicollinity.

### Autocorrelation Test (DW-test)

**Table 4. Autocorrelation Test (DW-test)**

Nilai DL	Nilai DU	Nilai Durbin Watson	Kesimpulan
1,0201	1,9198	1,767	TidakTerjadiAutokorelasi

Source: Results of research data processing, 2016

From Table 4, the value (dL) = 1.0201 and the value (dU) = 1.9198 and the value (4-dL) = 3.0504 and the value (4-dU) = 1.9817. The Durbin-Watson test is one of the most widely used tests for determining the presence of autocorrelation, that is, for calculating the value of dw. If d is between 1758 and 2242, there is no autocorrelation. And if the value of dw is greater than this, there will be an autocorrelation. (Winarno 2009 at Tiyas Ardian Saputra 2013). It can therefore be concluded that the autocorrelation test in the regression equation of this study was not performed with autocorrelation.

### Heteroscedicity Test (Glejser Test)

The Heteroscedicity Test is one of the classic assumptions as a requirement for conducting regression analysis. Heteroscedicity testing can be seen based on a scatterplot but is very weak because it only relies on visual analysis. The Glejser test proposes to regression the absolute residual (AbsUt) value as a dependent variable. If the independent variables do not affect AbsUt then there is no indication of heteroscedicity and vice versa. The results of the Glejser Test analysis can be seen in the table below

**Table 5. Heteroscedasticity Test (Glejser Test)**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.000	6	.000	.000	1.000 <sup>a</sup>
Residual	.049	23	.002		
Total	.049	29			

Source: Results of research data processing, 2016

Based on table 5, it is shown that the glejser test results have a value of sig. 1,000 or greater than 0.05 so it can be concluded that there are no heteroscedasticity symptoms in this regression model.

## Analysis of Multiple Linear Regression

**Table 6. Results of Calculation of Multiple Linear Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.826	1.106		1.651	.112
inflasi	-.206	.074	-.674	-2.803	.010
kurs	-.204	.270	-.134	-.754	.458
umur	.010	.015	.094	.632	.534
size	.024	.008	.610	2.848	.009
rating	-.122	.024	-.949	-4.983	.000
roa	.074	.030	.451	2.420	.024

**Source: Results of research data processing, 2016**

Based on the results of data analysis in Table 6, multiple linear regression equations can be made as follows:

$$Y = 1,826 - 0,206x_1 - 0,204x_2 + 0,010x_3 + 0,024x_4 - 0,122x_5 + 0,074x_6 + e...$$

Explanation :

Y = Islamic Bond Yield

$\beta_0$  = Constants

$\beta_1 - \beta_6$  = Independent variable regression coefficient

X1 = Inflation

X2 = Rupiah Exchange Rate against US Dollar

X3 = Term of Bond

X4 = Company Size

X5 = Bond Rating

X6 = Return on Asset

e = Standard Error

### Test F (ANOVA Test)

**Table 7. Anova test**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.054	6	.009	4.223	.005 <sup>a</sup>
	Residual	.049	23	.002		
	Total	.104	29			

**Source: Results of research data processing, 2016**

### Discussion of F Test Results

The results of the F test show the feasibility of the regression model that the model estimated is in accordance with the research data. Significance probability value Test F in Table 7 is 0.005 which is below the significance level  $\alpha = 0.05$ . This means that the regression model is suitable in the study (good fit model) where the estimated model is in accordance with the research data. The taking of the independent variable is quite feasible because it is able to explain the variation of Y. After the model is declared feasible then the t test is performed, which shows the partial influence of the independent variable on the dependent variable.



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## T Test (Partial Test)

A t-test is performed by comparing the t-score with a t-table or by examining the significance column of each t-score with criteria, if the significance value is  $<0.05$ , the assumption is accepted, which means the Independent variable has a significant effect on the dependent person. variable and vice versa, if the significance value is  $> 0.05$ , the hypothesis is rejected, which means that the independent variable does not have a significant effect on the dependent variable.

**Table 8. Test**

Model	t	Sig.	Keterangan
inflasi	-2.803	.010	Signifikan
kurs	-.754	.458	Tidak Signifikan
umur	.632	.534	Tidak Signifikan
size	2.848	.009	Signifikan
rating	-4.983	.000	Signifikan
roa	2.420	.024	Signifikan

Source: Results of research data processing, 2016

Based on Table 8, the results of the T test of the independent variables that are significant for the dependent variable are variables of inflation, Size, Rating, and ROA while the independent variables that are not significant to the dependent variable are the Sukuk Exchange Rate and Age variables.

## Coefficient of Determination

**Table 9 Model Summary.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 <sup>a</sup>	.524	.400	.04628634

Source: Results of 2016 research data processing

Based on the coefficient of determination in table 9 this study amounted to 0.524. This means that 52.4% of bond yield variations are explained by the six independent variables namely inflation, exchange rate, bond age, company size, bond rating, and ROA, while the remaining 47.6% is due to other variables outside the regression model.

## Discussion

In this study, all independent variables should affect sukuk performance. When considering using SPSS, all independent variables in this study did not have a significant effect on the dependent variable, sukuk production observed in table 6 which shows that the constant value is 1.826 and the significance value in this study is more than 0.05 which is 0.1125 . But partially, the independent variable Inflation has no effect with the value of -0.206, the Exchange Value variable (Exchange Rate) has a value of -0.204 and does not affect the dependent variable of sukuk yield, independent variable Time of Maturity *Sukuk* (Age *Sukuk*) affects the dependent variable yield with value 0.010, and partially, the size of the company-independent variable also affects the performance of the dependent variable with a value of 0.024, and the rating of the independent variable sukuk does not affect the performance of the dependent variable with a value of -0.1220 and the independent variable ROA affects the profitability of the dependent variable with a value of 0.074



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### 5. CONCLUSION

This study aims to analyze the factors that affect the Syaria'h Bonds (sukuk) yield as a dependent variable using the Multiple Linear Regression model. This study analyzes Inflation, Exchange Rate (Exchange Rate), Sukuk Maturity Time, Company Size (Size), Sukuk Rating, and ROA for the period 2012-2016 as independent variables. From the description in the previous chapters, the following conclusions can be drawn:

1. Partially, independent variable Inflation does not affect the dependent variable of sukuk yields, the exchange rate (exchange rate) variable does not affect the dependent variable of sukuk yields, the independent variable Sukuk (Age of Sukuk) also has no effect on the dependent variable yield, and Partially, the independent variable of the Sukuk Rating also does not affect the dependent variable yield.
2. Partially, the independent variable Company Size (Size) and ROA affect the dependent variable yield.

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## ANALYSIS OF EFFECT OF PROFESSIONAL ZAKAT AND FAMILY HOPE PROGRAM FUNDING ON MUSTAHIK WELFARE IN OGAN ILIR DISTRICT

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### Abstract

Welfare is related to poverty because poverty is a situation of the population or part of the population that can only fulfill food, clothing, and housing which is very necessary to maintain a minimum standard of living. Based on the definition above, there is a situation that is contrary to welfare where the concept of well-being is the fulfillment of food, clothing, and housing which is very necessary to maintain a decent standard of living. The government has taken many steps to overcome poverty, but the results have not been as effective as expected. Efforts to eradicate Islamic poverty have their own way as revealed by Beik (2010) in his research on the role of zakat in overcoming poverty and inequality in DKI Jakarta. The results of the study concluded that zakat funds that had been distributed were able to increase household income by an average of 9.82 percent. While the proportion of zakat itself to total household income mustahik is 8.94 percent. This shows that in general, zakat can improve the standard of life of mustahik.

**Purpose.** The purpose of this article is to look at the influence of Professional Zakat and Hope Family Program Funds on mustahik welfare in Ogan Ilir Regency.

**Formulation of the problem.** How is the influence of Professional Zakat and Hope Family Program Funds on mustahik welfare in Ogan Ilir Regency?

**Results.** Zakat has a positive influence on Poor Household Welfare in Ogan Ilir Regency with a coefficient of 0.604058 which means that if zakat increases by 1% it will increase the welfare of poor households by 0.604058%, other factors are considered *ceteris paribus*. The variable probability value of zakat ( $X_1$ ) is  $0,000 < 0.10$  which means that it significantly influences the welfare of poor households. PKH funds have a positive influence on Mustahik Household Welfare in Ogan Ilir Regency with a coefficient of 0.007493 which means that if PKH funds increase by 1% it will increase the welfare of mustahik households by 0.007493%, other factors are considered *ceteris paribus*. The variable probability value of PKH funds ( $X_1$ ) is  $0.8918 > 0.10$ , which means that it does not significantly influence the welfare of household mustahik.

**Conclusion.** Professional zakat has a significant positive effect on the welfare of mustahik households in Pemulutan Ogan Ilir Regency, so any increase in zakat also results in the welfare of poor households in Pemulutan Subdistrict Ogan Ilir Regency will also go up with the assumption that in addition to the zakat variable and PKH funds other variables are considered permanent or *ceteris paribus*. Whereas PKH funds have no significant positive effect on the welfare of mustahik households in Pemulutan Pemulutan Ogan Ilir Regency.

**Keywords:** *zakat, PKH funds, welfare, household, mustahik*

### 1. INTRODUCTION

Welfare is related to poverty because poverty is a situation of the population or part of the population that can only fulfill food, clothing, and housing which is very necessary to maintain a minimum standard of living. The government has taken many steps to reduce poverty. The central government issued the Family of Hope Program as a form of program carried out by the Government of Indonesia since 2007 in an effort to accelerate poverty reduction. Professional zakat is classified as a new type in the



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categorization of assets that must be issued zakat. The term profession in Arabic terminology is not found explicitly in words. Efforts to eradicate Islamic poverty have their own way as revealed by Beik (2010) in his research on the role of zakat in overcoming poverty and inequality in DKI Jakarta.

### 2. FORMULATION OF RESEARCH GOALS.

The purpose of this article is to look at the influence of Professional Zakat and Hope Family Program Funds on the welfare of mustahik in Ogan Ilir Regency.

### 3. OUTLINE OF THE MAIN RESEARCH MATERIAL

Welfare or prosperity can have four meanings in general terms, prosperity refers to a good condition, a human condition in which people are prosperous, healthy and peaceful. The concept of welfare can be formulated as a common meaning of the concept of human nature which can be seen in four indicators, namely: (1) Security, (2) Welfare, (3) Freedom, and (4) Identity. Welfare is a situation where a person is able to meet the needs of clothing, food and housing and has the opportunity to continue good education and obtain decent work to tie a good quality of life and secure peace.

Economics in Islam is the study of all human behavior in meeting the needs of his life with the aim of obtaining *falah* (peace and prosperity of the hereafter). Human behavior here is related to the foundations of sharia as a reference for behavior and the tendencies of human nature. Both of these interact with their respective portions to form a unique economic mechanism with the foundations of Divine values. As a result, the economic problem in Islam is the problem of guaranteeing the revolving of wealth among humans in order to maximize the function of his life as a servant of God to achieve *falah* in the world and the hereafter (hereafter).

Zakat Profession is indeed not yet familiar in the treasures of classical Islamic scholarship. Therefore, the results of the profession are categorized as the type of compulsory zakat property based on the *kias* (analogy) of the similarity (*syabbah*) to the characteristics of the existing zakat assets, Professional Zakat is zakat which is issued from what results are obtained from the work and profession when it reaches its *Nisab*. and the haul of income generated must be issued zakat (Qardawi, 2007 in Marimin, 2015). Income zakat or also known as professional zakat is part of *maal zakat* which must be issued for assets originating from routine income / income from work that does not violate sharia (Al Qur'an Surah Al Baqarah verse 267, Regulation of the Minister of Religion No 52/2014 and the opinion of Shaikh Yusuf Qardawi).

Zakat does not only provide the funds needed by the Islamic State for welfare activities in sectors such as education, health and social services, but also allows it to fulfill all its obligations in relation to its poor and destitute citizens (Chaudhry, 2012).

The central government issued the Family of Hope Program as a form of program carried out by the Government of Indonesia since 2007 in an effort to accelerate poverty reduction. The PKH targets are poor families with criteria for pregnant / breastfeeding women, elementary / MI or equivalent children, high school / MTs or equivalent children, high school / MA or equivalent children, and children aged six to 21 years who have not completed 12-year compulsory education. In 2018 the last period the number of PKH recipients was 21,649 families based on the report of the implementation of the Family Hope Program in Ogan Ilir Regency. It can be seen the distribution per district in Ogan Ilir Regency in table 1.



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**Table 1. Number of families receiving Hope Family Program Funds Per Subdistrict in Ogan Ilir Regency in 2018**

District Name	Number of PKH Recipients	Percentage %
Indralaya	1.476	6,82
Indralaya Selatan	836	3,86
Indralaya Utara	513	2,37
Kandis	679	3,14
Lubuk Keliat	1.235	5,70
Muara Kuang	931	4,30
Payaraman	902	4,17
Pemulutan	3.633	16,78
Pemulutan Barat	1.291	5,96
Pemulutan Selatan	2.045	9,40
Rambang Kuang	716	3,31
Rantau Alai	764	3,53
Rantau Panjang	1.732	8,00
Sungai Pinang	1.852	8,55
Tanjung Batu	1.122	5,18
Tanjung Raja	1.932	8,92
<b>Amount</b>	<b>21.649</b>	<b>100</b>

**Source:** Implementing the Family Hope Program District. Ogan Ilir (2019) is processed

Technical data analysis is a way to systematically search and arrange data obtained from the results of data collection methods so that it can be easily understood and provide information. The data analysis technique used is a descriptive quantitative analysis model using the Multiple Linear Regression analysis method using the E-Views program. Multiple linear regression analysis is used by researchers to see the effect of how the state of the dependent variable on the independent variable. The model that will be used in the following research:

$$W = f(Z, PKH, \varepsilon)$$

Where:

W = Mustahik Welfare

Z = Professional Zakat

PKH = PKH Fund

$\varepsilon$  = disturbance factor

The multiple linear regression equation of the function above is as follows:

$$W = \alpha + \beta_1 Z + \beta_2 PKH + \varepsilon$$

**Zakat (X1)** has a positive effect on Poor Household Welfare in Ogan Ilir Regency with a coefficient of 0.604058 which means that if zakat increases by 1% it will increase the welfare of poor households by 0.604058%, other factors are considered *ceteris paribus*. The variable probability value of zakat (X1) is  $0,000 < 0,10$  which means that it significantly influences the welfare of poor households.

The results of this study are in line with the hypothesis which says a positive relationship between zakat and welfare. This is in accordance with what is written in the Qur'an (Surah At-Taubah [9]: 60); (Surah At-Taubah [9]: 103) and Surah. Al-An'aam [6]: 141) which means that zakat is intended for people who are less able and truly deserved to receive assistance and compensation so that increasing community welfare itself and reducing the distance between rich and poor in society and can be concluded that zakat



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has a positive effect on improving the welfare of the recipients of zakat. In line with research conducted by Tsani (2010) which says the distribution of zakat by BAZDA South Lampung has a positive effect on the income of mustahik families (zakat recipients), Novie Maria Ulfah (2009) who said that the utilization of zakat maal in Bazis Undaan District has a positive effect on the community economy. mustahik and Mutia and Zahrah (2009) which said that the amount of zakat received and the number of household members had a positive influence on the increase in mustahik income.

**PKH Fund (X2)** has a positive influence on Mustahik Household Welfare in Ogan Ilir Regency with a coefficient of 0.007493 which means that if PKH funds increase by 1% it will increase the welfare of mustahik households by 0.007493%, other factors are considered *ceteris paribus*. The variable probability value of PKH funds (X1) is  $0.8918 > 0.10$ , which means that it does not significantly influence the welfare of household mustahik.

The results of this study say that PKH funds have a positive effect on the welfare of poor households, which means the hypothesis is accepted. In line with the results of a study conducted by Multifiah (2009) which said that ZIS Education and ZIS Assistance assistance had a positive positive effect on household welfare and Swandewi (2014) which stated that the Regional Fiscal Balance and Independence Fund had a positive effect on community welfare in Regencies / Cities in Bali province.

#### 4. CONCLUSION

Based on the results of professional zakat research, a significant positive effect on the welfare of mustahik households in Pemulutan Ogan Ilir District, any increase in zakat also results in the welfare of poor households in Pemulutan Subdistrict, Ogan Ilir Regency will also go up with the assumption that besides zakat variables and PKH funds other variables are considered fixed or *ceteris paribus*. Whereas PKH funds have no significant positive effect on the welfare of mustahik households in Pemulutan Pemulutan Ogan Ilir Regency. The influence of professional zakat and PKH funds on the welfare of poor households in Pemulutan District, Ogan Ilir Regency is quite high when seen from the  $R^2$  value of 29.97%. This shows that there is potential from professional zakat and PKH funds to play an even greater role in binding the welfare of mustahik households in Pemulutan District, Ogan Ilir Regency.

The advice given is that it is better to distribute the two variables, namely professional zakat and PKH funds more evenly. Zakat can be distributed through amil zakat institutions, so that it can be optimized to improve the welfare of poor households and help others. It is hoped that in the future more zakat mall payment types can be optimized not only in the form of money, so that they can distribute them to those entitled to receive them more evenly.

The suggestion for the government is that the government should be even more disheartened in seeing the distribution of PKH funds that have been budgeted by the State, which is a routine program of the government, to avoid uneven distribution and cause social jealousy in the community. Professional charity can be a new partner of the government in improving the welfare of the community if managed properly and appropriately by exploiting the potential that has not been touched by the government.

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## THE EFFECTS OF THE INCOME, THE PRICE, AND THE LOCATION ON THE DEMAND FOR SIMPLE AND HEALTHY HOUSES (*RSH*) IN PALEMBANG CITY.

Lina

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### Abstract

The overall independent variables in the form of the income, the price and the location variables have a significant effect on the demand for *RSH* housing. Income has a positive value in increasing the demand for *RSH* housing, while price shows a negative relationship with the *RSH* housing demand, which the demand increases in the event of a price decline. Location has a negative correlation to the demand for *RSH* housing as the distance of access to roads and public facilities is getting shorter, the demand for *RSH* housing increases.

### 1. INTRODUCTION

The basic needs of humans that must be fulfilled are food and clothing. Among diverse needs, human need of clothing is one of the important needs to be fulfilled. Clothing is needed to support human appearance. Clothing also reflects the person who wears it. Apart from that, the house or residence is also an important need of humans. A house is needed by humans to shelter and as a comfortable, safe and quiet place to live. The need for security is also one of the most important things, because with a sense of security, people can carry out their daily activities well and smoothly.

However, along with the progress achieved by humans as time goes on, houses are also used as an attractive investment alternative with returns in the form of rental income or profit opportunity in the form of capital gains, which is the difference between the purchase price and the selling price when the house is sold. Houses are also a social indicator of the identity indicating the status of the community. Someone who has a luxurious home indicates that the owner is a person who has high ability.

According to the Department of Settlements and Regional Infrastructure, the Director General of Housing and Settlements (2004) that the need for housing can basically be divided into two main categories, namely:

1. Home needs based on the tendency of natural population growth.
2. The need and supply of houses based on the number of decent homes.

Today various types of houses have developed from modern ones, such as condominiums and apartments to simple types, such as simple flats and ordinary houses. People can obtain a house by buying in cash or by installments which can be done through the property market. There are two types of markets in the housing property market, namely the primary market and the secondary market. The primary market is a market that provides new houses which are supplied by developers, both private developers and government developers. The private developers at this time are mostly incorporated in the Real Estate Indonesia (REI) organization. Whereas the government's responsibility in terms of housing development for the community is carried out by Perum Perumnas. The secondary markets are markets that provide transfer of home ownership of used or non-new homes. At present time, the secondary market is much assisted by the services of brokers or property agents (Rahma, 2010).

### Formulation of the Problem

Based on the background of the existing phenomena, the problem of this study is formulated as follows: How do the income, the price, and the location factors affect the demand for simple and healthy houses (*RSH*) in Palembang City.



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## Objective of the Study

The objective of this study is to disclose the effects of the income, the price, and the location on the demand for the simple and healthy houses (*RSH*) in Palembang City.

## Benefits of the Study

This study is expected to provide some implications for its users, among others:

1. Providing empirical information and evidence as well as becoming basic evaluation material for consideration of home development companies in determining policies in meeting the tastes and the desires of the people of Palembang City.
2. Providing reference for future research, especially in the subject of the factors that influence the demand for simple and healthy houses (*RSH*) in Palembang City.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The demand theory explains the nature of the buyers' demand for an item of goods. According to Rahardja and Manurung (2001), demand is the desire of consumers to buy an item at various price levels for a certain period of time. The factors that influence demand are the prices of the goods themselves, the prices of other related goods, the level of income per capita, the tastes or the habits, the number of population, the future price estimates, the distribution of income and the producers' efforts to increase sales.

### a. The Price of the item itself

If the price of an item is cheaper, then the demand for the item will increase, and vice versa. This will be in harmony with the law of demand which states that "If the price of an item rises, *ceteris paribus*, then the number of items requested will decrease and vice versa.

### b. The Price of Other Related Items

The prices of other goods can also affect the demand for an item, but both types of goods have relevance. The connection of the two types of goods can be substitute and are complementary in nature.

### c. Per capita income level

The level of income per capita can reflect purchasing power. The higher the level of income, the stronger the purchasing power will be, and so will the increase of the demand for an item.

### d. Taste or Habit

The tastes or habits can also affect the demand for an item.

### e. Total population

The higher the number of the population in an area, the higher the demand for an item will be.

### f. Income Distribution

Per capita income level can give a wrong conclusion if income distribution is bad. This means that a small portion of the community groups dominate the economy. If income distribution is bad, it means that purchasing power is generally weak, so that demand for an item will decrease.

Mankiw (2000) argues that the number of items requested depends on the price. In addition to prices, there are also things that determine how much goods consumers want to buy, such as income, prices of substitutes and complementary goods, tastes, expectations and number of buyers. According to Sarnowo and Sunyoto (2013: 1) demand is the amount of goods requested in a particular market at a certain price level.

The function of demand of someone for an item can be formulated as follows:

$$D_x = f(P_x, Y, P_y, T, u)$$



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In which:

$D_x$  = Number of item  $x$  requested

$P_x$  = Price of item  $x$

$Y$  = Consumer's Income

$P_y$  = Price of Other Items

$T$  = Taste

$u$  = Other Factors

In which in the equation above the number of items  $X$  requested is influenced by the price of the good  $X$  ( $P_x$ ), the consumer's income ( $Y$ ), the prices of other goods ( $P_y$ ), the tastes ( $T$ ) and other factors. (Sukirno, 2005).

A house is a place to protect oneself from natural and animal disturbances. In addition, the house is also a source of security and comfort. Housing demand is interpreted as a housing need that is in accordance with the wishes and the conditions of a society, in which each person has different economic abilities. According to Sastra and Marlina (2006: 84), housing demand can be identified from some factors, such as:

1. Income and distribution rates
2. Expenditure consumption patterns
3. Home market prices now (rent or purchase)
4. Residential systems (occupy, rent or contract)
5. The desired location, affordable prices, housing types and payment systems.

According to McKenzie and Betts (2006) demand for housing must be studied from two perspectives. The first point of view is the total demand or number of housing units that are clearly needed in the market. The second point of view is from housing composition, such as unit size, age, location, condition, and whether these units are planned to be sold to consumers or only for rent. Housing demand is influenced by three main factors, namely:

- a. Population and demography.
- b. Effective income and housing loans.
- c. Taste and lifestyle.

### Revenue Theory

According to Kieso, Warfield and Weygandt (2011: 955) Revenues are gross inflows of economic benefits arising from the entity's normal activities during a period, if the inflows result in an increase in equity that does not come from investment contributions.

Based on the nature of the change in demand that applies when income changes, the goods are divided into 4 categories (Sukirno, 2005):

#### a. Inferior goods

Inferior goods are items that are demanded by low-income people. So, when income increases, the demand for inferior goods will decrease. Example: Cassava will be replaced by rice when income rises.

#### b. Essential Goods

The changes in income will not reduce or increase demand for essential goods. Essential goods are physical items required by a consumer in order to sustain health or life (Nine basic needs).

#### c. Normal Goods

An item is called a normal good if the item experiences an increase in demand as a result of an increase in income. Examples: television, household appliances and residential homes.

#### d. Luxury Goods

This type of good is purchased by people of middle to upper income or high income. Example: motorbike, car.

### Price Theory

Price is the sum of all the values given by customers to benefit from owning or using a product or service (Philip Kolter, 2008:345). Pricing is determined by costs, namely fixed costs which are the costs that do not change in line with production or sales levels. The next is variable costs, namely the costs that change based on production. And the total cost is the addition of fixed costs and variable costs. The total production cost is the price that affects the selling price. Profit is the difference between total revenues (TR) and total costs (TC). So, to determine the maximum profit, the output (Quantity) needs an analysis of its revenues. Marginal Revenue is the slope of a line that shows the amount of increase in revenue if the output (Quantity) increases by one unit. Whereas Marginal Cost is the slope of a line that measures the additional cost of an additional unit of output (number of units). Thus it can be concluded that the value of  $MR - MC = 0$  or in another word that the value of  $MR = MC$ , then the amount of profit will be maximal. With the  $MR = MC$  value, the TR value is obtained so that the selling price is obtained (Damayanti and Utomo, 2014).

According to Rahma (2010) buyers' consideration of the price of a house is based on:

- a. Suitability / affordability of prices by the intended segmentation.
- b. Price compatibility with benefits received.
- c. Price compatibility with the desired quality of the house.

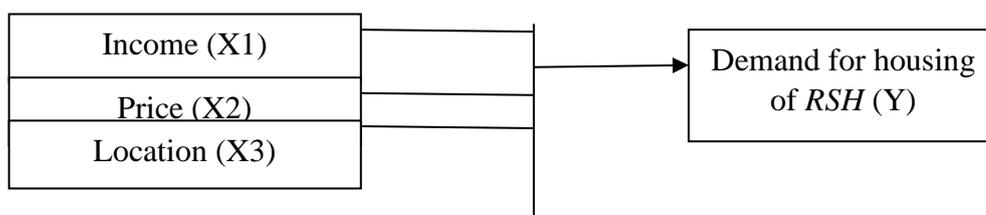
### Location Theory

According to Ramdhan (2014) the theory of choosing a location of residence was proposed by many experts, both economists and planners, and other experts. The popular residence selection model is a model that was created by William Alonso, Richard Muth, and Von Thunen.

According to Alonso (1964), individuals with certain income and taste will balance the cost of commuting and the benefits derived from cheap land along with the increasing distance from the city center and the availability of greater space. In the market mechanism, monopolistic landowners will give their land to the highest bidder. Thus, urban residents who offer the best offer will get the land. Meanwhile, according to Richard (1969), to maximize its utility, urban resident will choose a place of residence where the cost that must be spent to buy or rent land is balanced with the cost of commuting. When a high income urban resident has the same marginal cost of commuting but the price of land is high, then he will choose a location of residence that is quite far from the location of his activity. Conversely, if the price of land remains stable but the cost of commuting is high, then he will choose the location of the residence that is close to the center of his activities.

### Thinking Framework

In thinking framework, it is briefly explained as shown by the following figure:



**Figure 1. Thinking Framework**

The above thinking framework explains that Simple and Healthy House (*RSH*) Demand (*Y*) is influenced by factors of Income (*X1*), Price (*X2*), and Location (*X3*).



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### 3. HYPOTHESIS

Based on the background, the problem formulation, the objective of the study, the theoretical review and the thinking framework, the hypothesis of this study proposes that the variables of the income, the price and the location have a significant influence on the demand for the simple and healthy houses (RSH) in Palembang City.

#### Home Demand Theory

The progress of housing development in Palembang is increasingly rapid, as indicated by the increase in the number of housing in Palembang. The type of Simple and Healthy House is an option for people who have middle income. The Simple and Healthy Houses are regulated in the decision of the Ministry of Finance to have subsidies, so that people with high income cannot buy a Simple and Healthy House type.

Housing of Simple and Healthy House type in Palembang and the Palembang Border Area (Banyuasin Regency) consists of 46 scattered housing. For the sample of this study, 4 housing in the Sako Subdistrict area are selected as shown in the following Table 1:

**Table 1. Housing Demand**

No	Developers	Housing Project	Number of houses that have been built
1	PT. OganGrahaMandiri	RSH GriyaSakoPermai	100
2	PT. IndratamaBangun Persada	Bukit Persada Indah	51
3	CV. AnugerahWahana Indah	Griya Athena I	40
4	CV. Multi Pratama	Perum Villa Putri Mulya	60

This study uses 4 Housing, namely RSH Griya Sako Permai with a total of 100 houses that have been built, Bukit Persada Indah hill with a total of 51 houses that have been built, Griya Athena Housing with a total of 40 houses that have been built and Perum Villa Putri Mulya Housing with a total of 60 houses that have been built

In this study the income used is the initial income that has not been reduced in one family expenditure. Considered from the housing locations which is near the factory, it is assumed that the surrounding community became employees of the factory, so that the income earned from the surrounding community was equivalent to the income of the factory workers. In addition to the factory workers, there are also civil servants, State Owned Company's employees and the freelance employees. This study uses the amount of the basic salary of each head of household which is as follows.

**Table 2. Income Tables**

No	Employment (Job)	Income
1	Laborers	2,500,000
2	Non-government jobs	3,000,000
3	Civil Servants	3,500,000
4	State-Owned Companies' Employees	4,000,000

From the results of the interview with the respondents, the data on the family heads of the 4 housing studied were obtained as follows: The respondents comprise of family heads with 4 kinds of job, namely workers with income of 2,500,000 a month, employees of private companies with income of 3,000,000 monthly, civil servants with income of 3,500,000 a month and employees of State Owned Companies with income of 4,000,000 a month. To obtain an occupancy in a Simple and Healthy House, the



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government sets a requirement of a minimum income of 2,000,000 and a maximum income of 4,000,000.

The price of a house in the city of Palembang can increase due to the quite conducive situation of the community and the low rate of natural disasters that have made the development in Palembang continue to advance, so that social economic growth is relatively stable. This stability has made investors come to invest in the city of Palembang. From year to year the community continues to grow so that housing demand continues to increase, while the available land for housing remains constant. This condition causes land prices to increase. The house price set by the government is a maximum of Rp. 130,000,000.

**Table 3. Housing Prices**

No	Developer's Names	Housing Project	Prices
1	PT. OganGrahaMandiri	RSH GriyaSakoPermai	120,000,000
2	PT. IndratamaBangun Persada	Bukit Persada Indah	117,000,000
3	CV. AnugerahWahana Indah	Griya Athena I	120,000,000
4	CV. Multi Pratama	Perum Villa Putri Mulya	130,000,000

The data in the table above reveal that there are no housing prices in the Sub-district of Sako that exceed the price of Rp130,000,000.

Perumnas area is known as a dense residential area. This study uses one Sub-district with 4 Simple and Healthy Housing. Sako Sub-district is the choice for the study because the Sako Sub-district is a densely populated area that has many facilities in carrying out daily activities, such as quite large traditional markets, there are many schools ranging from elementary schools up to colleges. For this reason, many people are interested in owning one of the houses in the Sako Sub-district.

In this study, the distance from the location of the housing to the road that is passed by transportation vehicles is measured by using unit of length of meter. Each housing has the following distance from the road, Griya Athena is 1,700 m from the road, Bukit Persada Indah is 1,100 m from the road, Griya Sako Permai is 1,100m from the road, and Perum Villa Putri Mulya is 1,300m away from the road.

#### 4. DATA ANALYSIS

Based on the results of the data processing using the program of Eviews 9 the regression equation can be formed as follows:

**Table 4. Results of Regression of Income, Price and Location Variables Against the Demand for RSH Housing**

Dependent Variable: LOGPERMINTAAN  
Method: Least Squares  
Date: 07/03/19 Time: 02:42  
Sample: 1 164  
Included observations: 164

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOGPENDAPATAN1	0.205632	0.107803	1.907481	0.0582
LOGHARGA1	-3.158683	1.056783	-2.988961	0.0032
LOGLOKASI1	-1.801736	0.194208	-9.277347	0.0000
C	72.82226	20.94625	3.476626	0.0007



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R-squared	0.529712	Mean dependent var	4.080055
Adjusted R-squared	0.520894	S.D. dependent var	0.336789
S.E. of regression	0.233117	Akaike info criterion	-0.050467
Sum squared resid	8.694942	Schwarz criterion	0.025139
Log likelihood	8.138327	Hannan-Quinn criter.	-0.019774
F-statistic	60.07241	Durbin-Watson stat	0.142912
Prob(F-statistic)	0.000000		

Source : *Results of Studies, 2019*

The multiple regression equation shows that there is an influence of income, price and location variables on the DemandforRSH housing. Based on the data in Table 4.1 the equation can be formulated as follows:

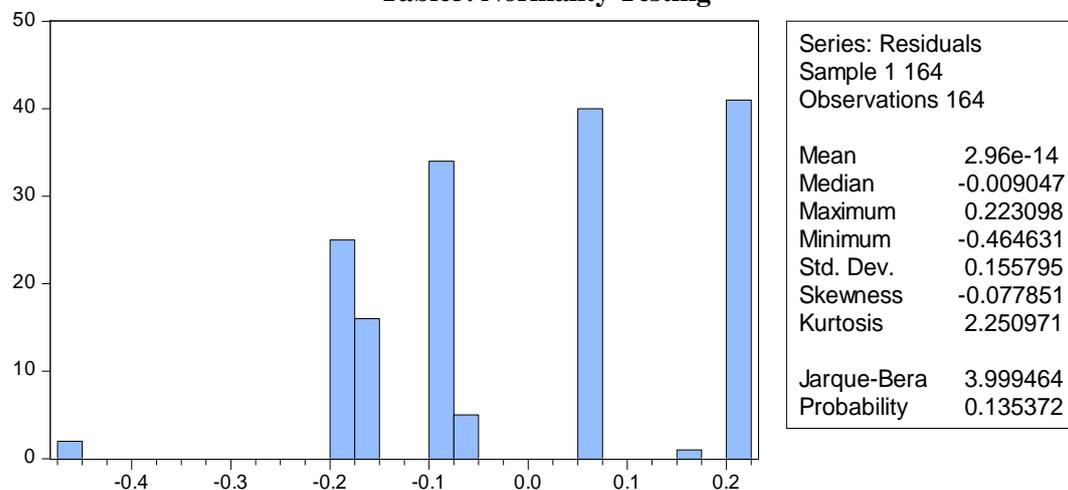
$$\text{Demand for RSH} = 72.82226 + 0.205632 (\text{Revenue}) - 3.158683 (\text{Price}) - 1.801736 (\text{Location})$$

The result of the equation is that the variable will be 72,82226 if there are no variables of Income, Price and Location. The coefficient of the income variable (0.205632) with a positive sign indicating that if there is a 1% increase, the value will increase the value of the coefficient. The coefficient of the Location variable (-1.801736) and (-3.158683) are variables with a negative sign, meaning that if there is a 1 percent increase, it will reduce the value as much as that of the coefficient.

### Normality Testing

Normality testing is done to find out whether the error term in this research model is normally distributed. If the Jarque-Bera Test counts is greater than 0.05 then the data are normally distributed.

**Table5. Normality Testing**



Source: *Research Results, 2019*

The test results show that the Jarque-Bera probability value is 0.135372 greater than the real level of 0.05 ( $\alpha = 5\%$ ). This shows that the data on the effect of the Income, Price and Location variables on the Demand Factors are normally distributed.

### Heteroscedasticity

The way to find out whether in a regression model there is a variable inequality from the residual of an observation to another observation, then heteroscedasticitytesting is done. This study uses White Test to detect heteroscedasticity problems.



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**Table 6. Heteroscedasticity test**

Heteroscedasticity Test: White

F-statistic	40.97520	Prob. F(3,160)	0.0000
Obs*R-squared	71.25477	Prob. Chi-Square(3)	0.0000
Scaled explained SS	42.42126	Prob. Chi-Square(3)	0.0000

Source: Research Results, 2019

The results of heteroscedasticity testing for Indonesian data show that the value of the Chi-Square counts at 0,000 (obtained from Obs \* R<sup>2</sup>), while the value of  $\chi^2$  has a significant value of 0.05 ( $\alpha = 5\%$ ) so that it concludes that this model experiences heteroscedasticity.

## Multicollinearity

Multicollinearity test aims to test whether in the regression model is found to have a correlation between independent variables. A good regression model should not have a correlation between the independent variables.

**Table 7. Multicollinearity Test**

Variance Inflation Factors

Date: 07/03/19 Time: 03:41

Sample: 1 164

Included observations: 164

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LOGPENDAPATAN			
1	0.005402	8070.321	1.029443
LOGLOKASII	0.004927	1673.451	1.035119
LOGHARGA	0.083463	192206.4	1.054054
C	29.66088	196722.9	NA

Source: Research Results, 2019

The results of multicollinearity test are the above output results that show that the centered VIF value on each variable is not more than 10, which means that there is no multicollinearity, so that there are no problems in using those variables.

## Autocorrelation

Autocorrelation test is done to find out whether there is a variable correlation in the prediction model with the change in time. The autocorrelation test in this study used the Breusch-Godfrey Serial Correlation LM Test method. When the value of the Prob. Chi-Squarep is greater than 0.05 ( $\alpha = 5\%$ ) then there is no problem with serial autocorrelation.

**Table 8. Autocorrelation Test**

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	318.7284	Prob. F(2,158)	0.0000
Obs*R-squared	131.4250	Prob. Chi-Square(2)	0.0000

Source: Research Results, 2019

Based on the data in the above table the correlation test results obtained the value of Prob. Chi-Square of 0.0000 which is greater than 0.05 which indicates that there is autocorrelation.



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### Coefficient of Determination ( $R^2$ )

R-Square ( $R^2$ ) is used as a pointer to show how much the sample can represent the total population. The results of  $R^2$  show that variations in the changes in variables of inflation, exchange rates, economic growth and prices for example the world crude oil, while the rest come from other factors outside the model.

The results of the value of the coefficient of determination ( $R^2$ ) in the table of 0.529712 or 52% indicating that the Housing Demand Factor in Indonesia is influenced by variables of income, price and location. While 48% shows that housing demand factors are influenced by other variables outside the model.

### Simultaneous Significance (F Test)

The F test was conducted to see whether there were simultaneous significant effects. If the probability value of statistical F is smaller than 0.05 ( $\alpha = 5\%$ ) then the overall independent variables have a significant influence on the dependent variable.

The results of table 4.1 show that the F-statistic probability value of 0,000 is smaller than 0.05. This means that the overall independent variables in the form of income, price and location variables have a significant effect on the dependent variable of the *RSH* demand factor

### Partial Significance (t Test)

The t test was carried out to see whether there was a significant effect individually. If the t-statistical probability value is smaller than 0.1 ( $\alpha = 10\%$ ) then the independent variable individually has a significant influence on the dependent variable.

The research results in table 4.1 show that the income variable has a probability value of 0.0582 where the value is smaller than 0.1 so that it can be said that the income variable has a significant influence on the housing demand factor of the *RSH*. While for the House Purchase Price variable has a probability value of 0.0032 where the value is smaller than 0.1, the exchange rate variable has a significant influence on the *RSH* housing demand factor. Then, the location variable has a probability value of 0.0000 which is small compared to 0.1, so the location variable has a significant effect on the *RSH* housing demand factor.

### Discussion

#### Revenue Factor Analysis Against *RSH* housing demand in Sako Subdistrict of Palembang

The regression results indicate that there is an influence of the income variable on the housing demand variable. The income variable has a P-value of 0.0582 which is smaller than the real level of 0.1. The positive t-statistics indicate that if the amount of income in the community increases, the demand for *RSH* housing increases. The income variable of this study was taken on the basis of the basic salary of each respondent who owned the *RSH* house in Sako Subdistrict. The results of frequency distribution of 164 respondents are as follows: There are 51 respondents who have an income of Rp. 4,000,000 (four million rupiah), 42 respondents with an income of Rp 3,500,000 (three and a half million rupiah), 40 respondents who have an income of Rp. 3,000,000 (three million rupiah), 31 respondents who have an income of Rp 2,500,000 (two and a half million rupiah).

Based on these results, it can be concluded that the more the number of people who experience an increase in income, the more people can buy a house, which in turn will increase the number of house demand. In this study, the requirement to be able to buy an *RSH* house is that someone must have an income of two and a half million rupiah to four million rupiah. As more and more people have income that meets these requirements, more people will be able to apply for *RSH* installments. As shown by the results of the previous study by Dengah, Rumat and Audie Niode (2014) who examined the effect of per capita income and population on the demand for Manado City housing for 2003-2012. The results showed that per capita income had a positive and significant effect on housing demand.



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### **Analysis of Location Factor against *RSH* housing demand in Sako Subdistrict of Palembang**

Location variable which is measured on the basis of the distance between the location of housing and the main road that is passed by public transportation vehicles. This variable is measured in unit of meter. Based on the study on the effect of location variable on *RSH* housing demand, the result reveals that the location variable has an influence on *RSH* housing demand with the t-statistic value indicated as 0.0000 with negative value. The negative value means that the shorter the distance of the location, the greater the demand for *RSH* housing in the Sako Sub-district of Palembang. In this study, the housing with the distance of 1,100 meters with 80 respondents had a total house demand of 151 houses. The housing with the distance of 1,300 meters with 40 respondents had as many as 60 housing demand. While for the housing with a distance of 1,700 meters with 40 respondents had a housing demand of 40 houses. So, it can be concluded that the farther the distance of housing, the smaller the demand for the housing, and vice versa. The closer the distance of housing to the main road, the greater the demand for the *RSH* housing will be.

The previous research by Marpaung (2011) examined the factors that influence consumers on housing demand. According to him, an empirical evidence shows that the location of a home is one of the factors that influence consumers in choosing housing. The location is the third strongest influential factor. In the process of data collection in the community, it is revealed that the location becomes an important choice because the would be buyers consider whether the housing has access that is not far from public transportation facilities. Some consumers state that as far as the location can be reached by motorized vehicles and by driving it will not be a problem.

The positive value shows that the price of the house experiences an increase, and the demand for the houses also increase, this means that the facilities and the area of the land offered by the developer of the houses make the selling price of the house more expensive. However, considering the regulations of the government that the price of the house of *RSH* type may not exceed one hundred thirty million rupiahs, the competition of the prices is no bigger in comparison with the competition of the facilities of the houses. The results of the frequency distribution are as follows: The houses with the price of Rp 120,000,000,- have 80 respondents and the number of housing demand is 140 houses. The houses with the price of Rp 117,000,000,- have 40 respondents and the number of housing demand is 51 houses. Whereas the houses with the price of Rp 130,000,000,- have 80 respondents and the number of housing demand is 60 houses. So, it can be seen that the smaller the price of the houses, the fewer the number of the housing demand. Conversely, the higher the value of the house, the higher the number of the housing demand at the housing of *RSH* type.

### **Analysis of Location Factor against *RSH* housing prices in Sako Subdistrict of Palembang**

The results of the study revealed that the income variable has a P-value of 0.0032 which is smaller than the real level of 0.1, which means that the variable of housing prices in the *RSH* housing has a significant effect. A positive value indicates that as the house prices have risen, so has the demand for houses. This means that the facilities and land area offered by the housing developer make the house more expensive. However, given that the government regulations regulate that the price of *RSH* type house must not be more than one hundred thirty million rupiahs, so that the price competition is not greater than the competition regarding housing facilities. The results of frequency distribution are as follows: The houses with the price of Rp 120,000,000 with the total of 80 respondents has the total housing demand of 140 houses. The houses with selling price of Rp. 117,000,000, with the total of 40 respondents has housing demand of 51 houses. While the houses with the price of Rp. 130,000,000 with the total of 80 respondents have a total housing demand of 60 houses. So that it can be concluded that the smaller the house price, the less demand for the house. On the contrary, the greater the value of the house prices, the greater the demand for housing in the *RSH* type housing.

In the previous study, Kuanh and Li (2012) examined the relationship between affordability of housing and housing prices using the data obtained from 35 large and medium cities from 1996 to 2007 in China.



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The results show that housing prices have played a more important role in housing affordability than household income.

### 5. CONCLUSION

Based on the results of the study and the discussion that has been done, the conclusions of the study can be formulated as follows:

The overall independent variables in the form of the income, the price and the location variables have a significant effect on *RSH* housing demand factors. Independently, each of the variables, namely the variable of income influences the demand for *RSH* housing. While the variable of selling price of housing also affects the demand for *RSH* housing in Sako Sub-district. The location variable significantly influences *RSH* housing demand. Judging from the coefficient for the income variable which is positive where there is an increase in demand which is influenced by the increase in income. The price variable shows a negative value where there is an increase in demand in the event of a price decline. Then the location variable shows a negative effect in which the shorter the distance of access to roads and public facilities, the greater the demand for *RSH* housing will be.

### Suggestions

Based on the aforementioned conclusions, the author proposes the following suggestions:

1. This study uses a probability value of 0.1%, therefore it is recommended that the future researcher use the probability value of 0.05 and 0.01 so that it can be seen whether or not the income, the price and the location have an effect on the demand for housing with a lower probability value.
2. A further study with more variables is needed, such as the variables of level of security, facilities and infrastructure to have better results and increase the number of respondents and the number of the sub-districts involved in Palembang City.

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