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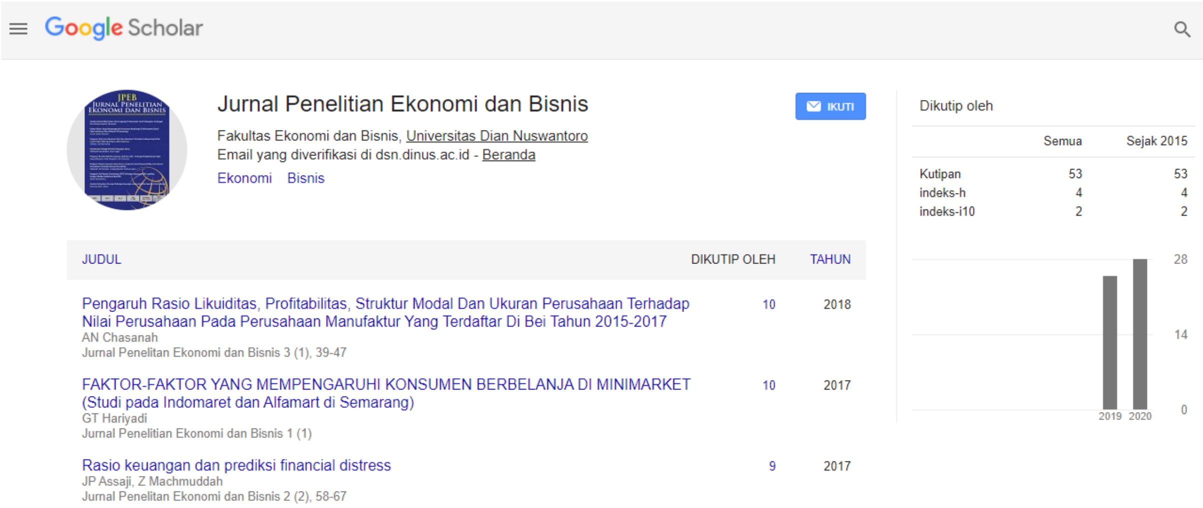

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PATH ANALYSIS OF MONETARY POLICY MECHANISMS: DOES ECONOMIC CAPACITY MEDIATE PRICES?

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ABSTRACT

The single objective of Bank Indonesia is Rupiah's stability. Within the monetary policy framework, the monetary instruments affect the operational targets (money supply and interest rates). Those operational targets effect rupiah stability troughs its effect on economic capacity/GDP. Using 108 monthly data, that is analyzed by path analysis; this study discusses the effect of net foreign assets (NFA) and net domestic assets (NDA,) and interest rates on the prices (CPI) through their effects GDP. The results show that NFA and NDA have a significant positive effect on GDP, while interest rates are tended to be negative. However, neither the NFA nor the NDA has been proven to have a direct significant effect on CPI. The interest rate has been proven to have a direct significant effect on CPI. GDP was not proven to have a significant effect on the CPI and neither mediates the effects of operational targets on CPI.

Keywords: Rupiah; Prices; CPI; Stability; Money

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INTRODUCTION

The stability of Rupiah must be sought because it has a strategic role in the framework of improving community welfare efforts. The instability of rupiah affects prosperity through its influence on the purchasing power of society, economic growth, employment, and the health of the International Balance of Payment and other fundamental economies. Bank Indonesia has been pursuing general price control with various instruments with the target between interest rates and the amount of money supply. In the monetary policy framework, the money supply is affected by the net foreign assets (NFA) and net domestic assets (NDA) result of the implementation of both various monetary policy instruments and real sector policies like improving the investment climate. Therefore, knowledge of how NFA and NDA influence both directly and indirectly against prices is important. As to common has been known, the higher domestic prices compared to the prices in neighboring countries makes the domestic real interest rates uncompetitive to put pressure on the rupiah (Herlina, 2018; Rusiadi; Novalina & Sembiring, 2017; Susilowati & Wahyuningdyah, 2018). Besides the money supply, the operational target of monetary policy is interest rates (Jan Gottschalk, 2014; Machmud & Warjoko, 2013; Sinaga & Sudirman, 2018). Interest rates can affect economic capacity, credit channelings such as credit for investment, working capital, and consumption.

With the issuance of Law No. 23 of 1999 concerning Bank Indonesia, which was subsequently amended through Law No. 3 of 2004 and Law No. 6 of 2009 in article 7, Bank Indonesia has become an independent institution as a holder of the monetary authority in Indonesia. Based on the law, Bank Indonesia has a single target, that is achieving and maintaining the stability of the Indonesian Rupiah (IDR). The stability of Indonesian Rupiah (IDR) referred to in the law includes two dimensions, the stability the value of Indonesian Rupiah (IDR) and the exchange rate. The stability of the value of the Indonesian Rupiah (IDR) means the stability of the prices of goods and services reflected in the price index. Meanwhile, the exchange rate stability of Indonesian Rupiah (IDR) means the stability of Indonesian Rupiah (IDR) against other currencies. Since July 1, 2005, Bank Indonesia has implemented an Inflation Targeting Framework (ITF) in achieving that stability. Within ITF, the prices are the overriding objective.

Table 1. Money Supply and the Factors Affecting It

Information	2013	2014	2015	2016	2017	2018*)
Broad Money(M2)	3,730,409	4,173,327	4,548,800	5,004,977	5,419,165	5,529,452
Narrow Money (M1)	887,084	942,221	1,055,440	1,237,643	1,390,807	1,384,265
Near Money or Quasi-Money	2,820,521	3,209,475	3,479,961	3,753,809	4,009,996	4,128,708
Securities Other Than Shares	22,805	21,630	13,399	13,525	18,362	16,479
Factors affecting Money Supply						
Net Foreign Assets (NFA)	1,011,361	1,105,783	1,176,638	1,298,938	1,541,838	1,483,559
Bill on Non-Residents	1,442,896	1,596,103	1,741,211	1,838,278	2,073,389	2,078,088
Obligations to Non-Residents	431,536	490,321	564,572	539,340	531,551	594,528
Net Domestic Assets (NDA)	2,719,049	3,067,544	3,372,162	3,706,039	3,877,327	4,045,892

Net Bill to The Central Government	406,611	416,608	491,127	519,065	488,862	445,236
Bill to Other Sectors	3,526,612	3,961,583	4,318,126	4,711,239	5,087,392	5,424,360

*) Up to August

The Indonesian economy as part of the world economy has entered the globalization era. The flow of resources across countries has become easier, including the flow of foreign investment. The better the investment climate in Indonesia is causing considerable incoming capital flows. The influx of foreign capital has led to an increase in net foreign assets (NFA) of monetary authorities, resulting in an increase in the amount of base money and NFAs of the monetary system. A study in Thailand also showed that domestic interest rates influenced the capital inflows into the country, also affecting the NFA (Jan Gottschalk, 2014). The positive effect of domestic interest rates on another path, the instrument of benchmark interest rate imposed by Bank Indonesia affects net domestic assets (NDA) through its effect on bills to the central government and bills to other sectors. Still referring to study in Thailand, it is discovered that interest rates are the cost of borrowing, have a direct impact on consumer spending (especially, on durable goods), housing and corporate investment, and determine savings/investment decisions (Jan Gottschalk, 2014). It means that NFA and NDA are the two main variables affecting the Money Supply in which it becomes an important determinant of prices.

Empirically, Money Supply has a positive effect on economic growth in Indonesia. Money supply affects economic growth in a country, directly or indirectly (Elies Nur Fauziyah, 2016; Prasasti, 2017; Rifai, Susanti, & Setyaningrum, 2017; Wulandari & Rahmadeni, 2017). Such conditions support the hypothesis proposed by Keynes, that money supply has a positive effect on aggregate supply which reflects economic capacity in which it will be equal to economic activity which includes consumption (C), investment (I), government expenditure (G) and net exports (X-M). Further, the changes in economic capacity affect prices. However, the results of other studies showed that the growth of Money Supply, Gross Domestic Product (GDP), and the Interest Rate has no significant effect on prices (Parlembang, Krisnaldy, & Ferdiansyah, 2017). Inflation is affected by Money Supply, World Oil Prices, Exchange Rate, and BI Rate. In contrast, some of the previous studies emphasizing the effect of monetary policy on price stability directly. Using the path analysis, this study explores the effect of Money Supply, consisting of Net Foreign Asset (NFA), Net Domestic Asset (NDA), and interest rates, on the prices with GDP as mediation. Determination of GDP as a mediator refers to the mechanism of monetary policy transmission, in which Money Supply and interest rates affect the ultimate objective of price stability through its effect on economic capacity.

LITERATURE REVIEW

Inflation, Price Index, and Its Causing Factor

Principally, inflation can be interpreted as a phenomenon of prices increase in which it happens continuously and within a certain period. The commonly used indicator to measure inflation is the change in Consumer Price Index (CPI), CPI is a figure reflecting the average price of goods and services consumed by households. Inflation is a change of CPI from time to time. In Indonesia, determining the types of goods and services used to calculate CPI is carried out based on a Cost of Living Survey (CLS) conducted by Statistics Indonesia (locally known as BPS).

Prices are not only a monetary phenomenon but also a real phenomenon. As a real phenomenon, prices are the result of individual choices, and it affects the economy. At least two theories are analyzing the issue of prices, which are theories discussing prices as monetary phenomena only and inflation as real phenomena (real theory of inflation). Prices are one of the main issues discussed in the macroeconomy because of its great effect on economic life as a whole. The prices do not only concern on monetary matters, but it also contains social and political content. It can be seen from its influence on the redistribution of income in society and the political turmoil occurring as a result of high prices. Economic factors affecting the prices are the growth of the money supply set by the government (through the central bank/ Bank Indonesia) with the assumption that other things are constant. According to Irving Fisher, price (P) is a function of money supply (M). Mathematically, the relationship between price and money supply is formulated to be P = f (M). Thus, it can also be said that the growth of the money supply determines the prices.

Related to various factors that influence the prices, some empirical studies have been carried out. Parlembang et al, (2017) examined the effect of the money supply, the growth of gross domestic product and the interest rate, as well as the USD exchange rate on prices, the error correction model (ECM) approach, is used. The results of the study showed that the effect of the money supply, the growth of the gross domestic product, and the interest rate does not significantly affect the prices. Of all the suspected variables affecting, only the USD exchange rate variable which is statistically proven to have a significant effect on the prices. Meanwhile, Panjaitan dan Wardoyo (2016) found that of the five variables allegedly influencing prices, the exchange rate and net exports were not statistically proven to have a significant effect on prices in Indonesia. However, together with the exchange rate, money supply, BI rate, and net exports affect prices in Indonesia (Hartomo, 2010; Langi et al, 2014; Sutawijaya, 2012). Meanwhile, the money supply, the exchange rate, and the fixed price individually have a positive and significant effect on prices in Indonesia. Whereas the interest rate has a positive, and it did not have a significant effect on influencing prices in Indonesia.

The Stability of Indonesian Rupiah (IDR)

The objective of Bank Indonesia according to Law No. 23 of 1999 concerning Bank Indonesia, subsequently amended through Law No. 3 of 2004 and Law No. 6 of 2009, is to achieve and maintain the stability of Indonesian Rupiah (IDR) (Bank Indonesia, 2017). The intended stability of Indonesian Rupiah (IDR) has two dimensions. The first dimension of the stability of Indonesian Rupiah (IDR) in the mean of the value that is reflected in the stability of the goods and services prices. The second dimension is related to the foreign exchange rate, rupiah against other countries' currencies. In the context of the foreign exchange rate, Indonesia adopts a free-floating system. The role of exchange rate stability is very important in achieving price stability and the financial system. Therefore, Bank Indonesia also runs a policy to maintain the stability of the exchange rate to match its fundamental value while maintaining the operation of the market mechanism.

To achieve the objective of maintaining the stability of the Indonesian Rupiah (IDR), Bank Indonesia adopted the Inflation Targeting Framework (ITF) since July 1, 2005. The policy framework is deemed by the mandate and institutional aspects mandated by the Law. Within this framework, the stability of prices is the overriding objective. Bank Indonesia consistently continues to have various improvements to the framework of monetary policy following changes in dynamics and occurred economic challenges to strengthen its effectiveness. In implementing monetary policy adhering to the framework called *Inflation Targeting Framework* (ITF), interest rates are used as operational targets. Before the adoption of the ITF, Bank Indonesia used monetary policies applying for *base money* as a target of monetary policy.

Based on the experience of the global financial crisis that happened in 2008/2009, one important lesson emerging was the need for sufficient flexibility for the central bank to respond to increasingly complex economic developments. The financial sector is also expected to have a stronger role in influencing macroeconomic stability. Based on those developments, Bank Indonesia strengthened the ITF framework to be *Flexible ITF*. Flexible ITF is built by remaining based on the important elements of ITF having been built. The key elements of the ITF include the announcement of inflation targets to the public, monetary policies pursued in a forward-looking manner, and policy accountability to the public remains to be an inherent part of Flexible ITF. The Framework of Flexible ITF is built on 5 (five) main elements.

1. The stability of Prices is the single target of monetary policy.
2. Integrating monetary policy with macro-prudential policy to strengthen policy transmission and support macroeconomic stability.
3. Strengthening exchange rate policies and capital flows in supporting macroeconomic stability.
4. Strengthening policy coordination between Bank Indonesia and the Government both for price control and financial system stability.
5. Strengthening policy communication as part of policy instruments.

Money Supply and Economic Capacity

Money Supply can be defined as narrow money (M1) and broad money (M2). M1 includes currency held by the public and demand deposits (demand deposits denominated in Rupiah). Whereas, M2 includes M1, quasi money (including savings, long-term deposits in rupiah and foreign exchange, and demand deposits in foreign currencies), and securities issued by the monetary system. Several factors affecting money supply are Net Foreign Assets (NFA) and Net Domestic Assets (NDA). NDA consists of, among others, Net Claims on Central Government (NCCG) and claims to other sectors (the private sector, regional governments, financial institutions, and non-financial companies) in which they mainly are in the form of loans. The money supply is arranged concerning the *Monetary and Financial Statistics Manual* (MFSM) 2000 ("Monet. Financ. Stat. Man.," 2000).

Money has a very important role in the economy, both as an intermediary tool for exchanging, calculating units, and hoarding values. Therefore, the amount of money supply will certainly affect the economy. Based on classical monetary theory, Irving Fisher formulated the relationship between Money Supply and the economy with the formula MV = PT, where M is Money supply, V is the speed of circulation or money circulation, P is the price, and T is the volume of transactions/trade (Dimand, 2000). The exchange equation was developed and expressed by an economist from Cambridge, Marshall, and Pigou, in different forms. Marshall and Pigou explained that the determination of the money value is as same as the determination of the money value in general, determined by demand and supply. In the *cash-balance approach*, Marshall and Pigou emphasized that the function of the money value as a hoarder is very different from the function of money as a money exchange in the Fisher transaction approach (Shiller, 2013). The cash-balance approach, mathematically formulated M = kPY, where Y is the aggregate output, P is the price (PY is the value of aggregate output/GDP reflecting the economic capacity), k = the proportion of income in which people want to hold in the form of cash, and M is the Money supply. It means that GDP = M/k by assuming the velocity of money circulation does not change, the increase of money supply will increase economic capacity.

RESEARCH METHODS

This study was designed to examine the multiple relationships model between variables included in the framework of monetary policy regarding the effect of NFA, NDA, and interest rates on prices. Therefore, path analysis was a technique used in this study, in which it analyzes the NFA, NDA, and interest rates affecting the prices through its effect on GDP. Path analysis is intended to determine the relationship of direct dependency between a set of variables. Path analysis is a model similar to the multiple regression analysis models in terms of the causality relationship with differences in the level of complexity of the model. Regression analysis analyzes the dependent variable as the effect of the independent variable, but the dependent variable does not affect other dependent variables.

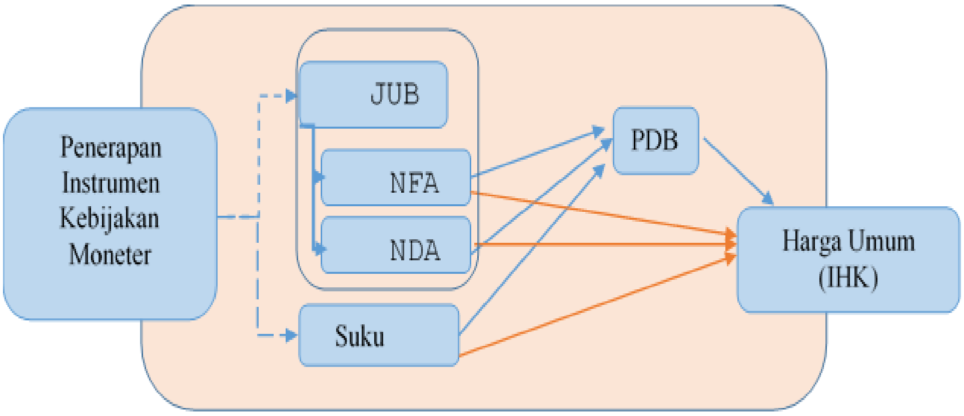

Figure 1. Research Framework

The development of empirical models in this study refers to the framework of monetary policy related to price control policy or price stability reflected in the Consumer Price Index (CPI). In terms of price control or price stability, Bank Indonesia as the holder of monetary authority has several instruments of monetary policy. The application of various monetary policy instruments does not always affect the final target of price stability, but it will affect the operational target of the money supply and interest rates. Furthermore, money supply and interest rates will affect economic activity consisting of public consumption expenditure (C), investment (I), government expenditure (G), and net exports (X-M) which are in equilibrium with economic capacity reflected in Gross Domestic Products (GDP). Economic capacity further affects the final target. In this study, the final target to be achieved is price stability reflected in the development of the CPI. The empirical model will then be transformed into an empirical model after undergoing data processing.

Starting from that framework of thinking, several working hypotheses can be arranged as follows:

1. H_1 : NFA has a significant effect on GDP
2. H_2 : NDA has a significant effect on GDP
3. H_3 : Interest rate has a significant effect on GDP
4. H_4 : NFA, NDA, Interest rate simultaneously has a significant effect on GDP
5. H_5 : NFA has a significant effect on prices (CPI)
6. H_6 : NDA has a significant effect on prices (CPI)
7. H_7 : Interest rate has a significant effect on prices (CPI)
8. H_8 : GDP has a significant effect on prices (CPI)
9. H_9 : NFA has a significant effect on prices with GDP as mediation
10. H_{10}: NDA has a significant effect on prices with GDP as mediation
11. H_{11}: NDA has a significant effect on prices with GDP as mediation

Equation of the Proposed Empirical Model:
1. GDP = $b_0 + b_1$NFA+ b_2NDA+ b_3IR+ e1
2. CPI = b_0'+ b_1'NFA+ b_2'NDA+ b_3"IR + b_4GDP+e2

Information:
GDP = Empirical Economic Capacity/Gross Domestic Product
NFA = Net Foreign Asset
NDA = Net Domestic Asset
IR = Interest Rate
b_0' = Constanta
b_1', b_2', b_3, b_4 = regression coefficient;
e_1 = error 1,
e_2 = error 2
To get Best Linear Unbiased Estimator (BLUE), an empirical test was developed to meet the requirements of the classic assumption test applied in this study, which are the normality test, autocorrelation test, and multidisciplinary test on each developed empirical model.

Mediator Variables Testing:

1. e $= 1 - R^2$
2. The steps in testing a hypothesis refer to the procedure of testing the role of a mediator with SPSS:
   1) Creating a regression equation of NFA (X_1), NDA (X_2), and Interest Rate (X3) on Economy Capacity/GDP (Y_1). From this regression analysis, it will produce a coefficient of b_1, b_2, and b_3. On that path, b_1, b_2, and b_3 expected to be significant ($p < 0.05$) and meet classical assumptions. If it does not meet the classical assumption, the disease in the classic assumption is treated to be continued until the next analysis phase.
   2) Creating a regression equation of NFA, NDA, Interest Rates, and GDP against CPI. From this regression analysis, it will produce coefficients b_1', b_2', b_3', and b_4'. These paths b_1', b_2', b_3', and b_4' are expected to be significant ($p < 0.05$). As in the regression equation 1, the regression equation 2 is also expected to meet the classical assumptions, and if it does not meet the classical assumptions, the disease in the classic assumptions is treated to be continued at the analysis stage

If the regression equation 1 b_1, b_2, and b_3 are expected to be significant ($p < 0.05$ proved significant ($p < 0.05$), so are the coefficients b_1', b_2', b_3' and b_4' in the regression equation 2. Therefore, it can be concluded that GDP is a mediating variable or is a mediator of the effect of money supply and interest rates on price stability reflected in the CPI.

RESULT AND DISCUSSION

Empirical Model 1

The empirical model 1 developed starts from the hypothesis that the intermediate target of monetary policy, in which the money supply and interest rates directly affect the economic capacity reflected in the Gross Domestic Product (GDP). By using a histogram, it can be seen that the distribution on the left and right sides of the standardized residual regression curve for empirical model 1 is quite symmetrical. The classic assumption test on model 1 showed that the empirical model 1 developed has a normally distributed regression residual. This condition is reflected in the statistical test value known to 0.054 with Asymp. Sig. (2-tailed) of 0,200 is greater than 0.00. The results of the Durbin Watson auto-correlation test showed that the empirical model 1 was free of auto-correlation symptoms with the D-W test of 2.022> 1.96 (table 1). The empirical model 1 proposed is also free from the multi-collinearity phenomenon reflected in the tolerance value which is greater than 0.10 and the VIF value less than 10 (table 2). Thus, the empirical model 1 meets the BLUE requirements and can be further analyzed. The empirical model 1 proposed is (equation 1):

$$GDP = b_0 + b_1NFA + b_2NDA + b_3IR + e1 \text{ .... (equation 1)}$$

Table 2. Durbin-Watson Test in Empirical Model 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.996 [a]	.992	.992	.00875	2.022

a. Predictors: (Constant), IR, NFA, NDA
b. Dependent Variable: GDP

Table 3. Multicollinearity Test in Empirical Model 1

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
NFA	.215	4.652
NDA	.192	5.209
IR	.418	2.390

a. Dependent Variable: GDP

Table 4. Regression Coefficient of Empirical Model 1

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.609	.049		12.383	.000
NFA	.051	.014	.129	3.664	.000
NDA	.089	.004	.780	20.946	.000
IR	-.015	.003	-.115	-4.565	.000

a. Dependent Variable: GDP

The empirical model 1 proved that NFA and NDA statistically have positive and significant effects on GDP, while IR has a negative effect. This phenomenon is consistent with research conducted by (Machmud & Warjoko, 2013; Prasasti, 2017; Pratiwi, Kristianti, & Mahardika, 2016). Referring to table 4, it means that each rupiah increase in NFA will cause GDP to rise by 0.051 rupiahs; each rupiah increase in NDA will cause GDP to rise by 0.089 rupiahs; and each percent of the increase in interest rates will cause an economic contraction of 0.015 percent. NFA. The economic capacity that is not affected by NFA, NDA, and interest rates of IDR 609 trillion. NFA, NDA, and interest rates together significantly affect GDP with prob sig. of 0,000. Model 1 has a coefficient of determination (R2) of 0.972. It means that NFA, NDA, and IR affect the economic capacity of 97.2 percent, while 2.8 percent of GDP is affected by other variables outside the model. This finding is supported by research conducted by Budi Prasasti, Karari (2017).

Empirical Model 2

Empirical model 2 was developed as part of the GDP variable testing step as a mediator of the effect of NFA, NDA, and interest rates on CPI as the final target. The development of the empirical model 2 is based on the hypothesis that in addition to having a direct effect, the intermediate target of monetary policy, in which money supply and interest rates affect the CPI through its effect on economic capacity reflected in the Gross Domestic Product (GDP).

CPI = b_0‘+ b_1’NFA+ b_2’NDA+ b_3”IR + b_4GDP+e2 ....(equation 2)

The normality test in the empirical model 2 showed that the distribution histograms on the left and right sides of the standardized residual regression curve are quite symmetrical (figure 4.4). Likewise, the test results are statistically using the Kolmogorov-Smirnov approach. As presented in table 4.6, the statistical test values are known to be 0.065 with Asymp. Sig. (2-tailed) of 0,200 is greater than 0.05. It means that the classic assumption of normality is accepted.

Table 5. One-Sample of Kolmogorov-Smirnov Test in Empirical Model 2

		Unstandardized Residual
N		108
Normal Parameters[a.b]	Mean	.0000000
	Std. Deviation	.00939814
Most Extreme Differences	Absolute	.065
	Positive	.063
	Negative	-.065
Test Statistic		.065
Asymp. Sig. (2-tailed)		.200 [c.d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

The auto-correlation test in empirical model 1 showed the existence of positive auto-correlation symptoms. It is reflected in the results of the Durbin-Watson test calculation of 0.490 which is smaller than the DL on the number of variables (k) = 5, and the number of samples (n) of 108 amounted to 1.610412 and (4-DW) of 3.51 greater compared to DU of 1.74372 (table 6).

Table 6. Durbin-Watson Test in Empirical Model 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.781 [a]	.611	.596	.05328	.490

a. Predictors: (Constant). GDP IR NFA. NDA
b. Dependent Variable: CPI

Violations of the classical assumptions do not have auto-correlation indeed tending to be found in periodic series data. It is because the value of a t-variable can be affected by the value of the lag variable, for example, the value of variables at t-1, t-2, and so on.

Multicollinearity Test in Empirical Model 2

The existence of violations of the classic multi-collinearity assumption is based on a tolerance value greater than 0.10 and a VIF value less than 10. Based on the results of the regression calculation in the empirical model 2, it is known that there is a violation of the classical assumptions because multi-collinearity symptoms are found. It reflects both based on the tolerance value in the NDA and GDP variables, as well as the VIF value on these variables. The tolerance value on the NDA variable is 0.037 smaller than 0.10, so is the tolerance value on the variable GDP of 0.028. Seen from the VIF value, the VIF values of NDA and GDP have values greater than 10, respectively 27.185 and 36.130.

Table 7. Multicollinearity Test in Empirical Model 2

Model	Collinearity Statistics	
	Tolerance	**VIF**
(Constant)		
NFA	.190	5,252
NDA	.037	27,185
IR	.349	2,869
GDP	.028	36,130

a. Dependent Variable: CPI

Because there are violations of the assumption of auto-correlation and multi-collinearity, "treatment" is needed to obtain a BLUE estimation model.

Empirical Model 3

Empirical model 3 was developed to improve empirical model 2. The existence of auto-correlation is suspected due to the effect of the lag of variable usually occurring in time series data. Therefore, empirical model 3 was developed by including the variable of lag_CPI, i.e. the CPI period t is also affected by the previous period CPI (t-1). Equation of empirical model 3 can be written (equation 3)

CPI $= b_0‘+ b_1’NFA+ b_2’NDA+ b_3”IR+ b_4GDP + b_5\mathit{Lag}\_CPD + e3$......(equation 3)

Where GDP: Economy Capacity; NFA: Net Foreign Asset; NDA: Net Domestic Asset, *Lag*_CPI: CPI period t-1, b_0‘: Constanta, b_1’, b_2’, b_3, b_4, b_5. Regression coefficient e_3: error 3 Statistical normality test results using the Kolmogorov-Smirnov approach with a statistical test value of 0.098 with Asymp. Sig. (2-tailed) of 0,065 is greater than 0.05. It means that empirical model 3 meets the classic assumption of normality.

Table 8. One-Sample of Kolmogorov-Smirnov Test in Empirical Model 3

		Smothered
N		108
Normal Parameters[,b]	Mean	.002272
	Std. Deviation	.0042205
Most Extreme Differences	Absolute	.098
	Positive	.052
	Negative	-.098
Test Statistic		.098
Asymp. Sig. (2-tailed)		.065[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on the Durbin-Watson table, for K is equal to 6, and the number of observations 108 has dL of 1.59087 and dU 1.78412. The Durbin-Watson test for empirical model 3 in this study was 1,794. Thus, the Durbin-Watson test for empirical model 3 in this study has a condition greater than dU. It means that there is no positive auto-correlation, and (4-1704) equals 2.206 greater than dU meaning that there is no negative auto-correlation.

Table 9. Durbin-Watson Test in Empirical Model 3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.915[a]	.837	.829	.03459	1,794

a. Predictors: (Constant). LagCPI. NFA. IR NDA. GDP
b. Dependent Variable: CPI

The results of the statistical calculation of collinearity in the empirical model 3 still show the presence of multi-collinearity symptoms. This condition is reflected in the tolerance value smaller than 0.10 in the NDA and GDP variables, and the VIF is greater than 10 in both of these variables. The tolerance value of the NDA variable is 0.37, while the tolerance value for the GDP variable is 0.026. Collinearity statistics of VIF show a figure of 26,964 in NDA variables and 38,714 in the GDP variable.

Table 10. Multicollinearity Test in Empirical Model 3

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
NFA	.192	5,205
NDA	.037	26,964
GDP	.026	38,714
IR	.138	7,248
LagCPI.	.376	2,660

a. Dependent Variable: CPI

Although there is multi-collinearity, empirical model 3 will still be used with the assumption that all independent variables together have a significant effect on CPI. It is reflected in the F-Sig probability value of 0,000 (table 4.13).

Table 11. Regression Coefficient of Empirical Model 3

	Unstandardized Coefficients		Unstandardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.775	.294		2,636	.010
NFA	-.022	.030	-.068	-.739	.462
NDA	-.001	.020	-.012	-.056	.956
IR	-.031	.012	-.273	-2,524	.013
GDP	-.096	.211	-.113	-.453	.651
LagCPI.	.773	.065	.774	11,819	.000

Regarding the effect of variables of NFA, NDA, IR, GDP, and lagCPI on CPI, it can be explained that NFA, NDA, and GDP do not have a direct effect on CPI, which is each with a probability value of Sig. partial by 0,462; 0.956 and 0.651. Meanwhile, the other two variables, interest rates (IR) and period t-1 CPI (lagCPI) have a direct and significant effect on the CPI. Interest rates have a negative effect of 0.031 on the CPI with a Sig. 0.013, and LagCPI has a positive effect of 0.773 with Sig. 0.000.

Table 12. Durbin-Watson Test in Empirical Model 3

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.622	5	.124	103,947	.000[b]
Residual	.121	101	.001		
Total	.743	106			

a. Dependent Variable: CPI
b. Predictors: (Constant). LagCPI. NFA. IR NDA. GDP
Source: Bank Indonesia, processed 2019

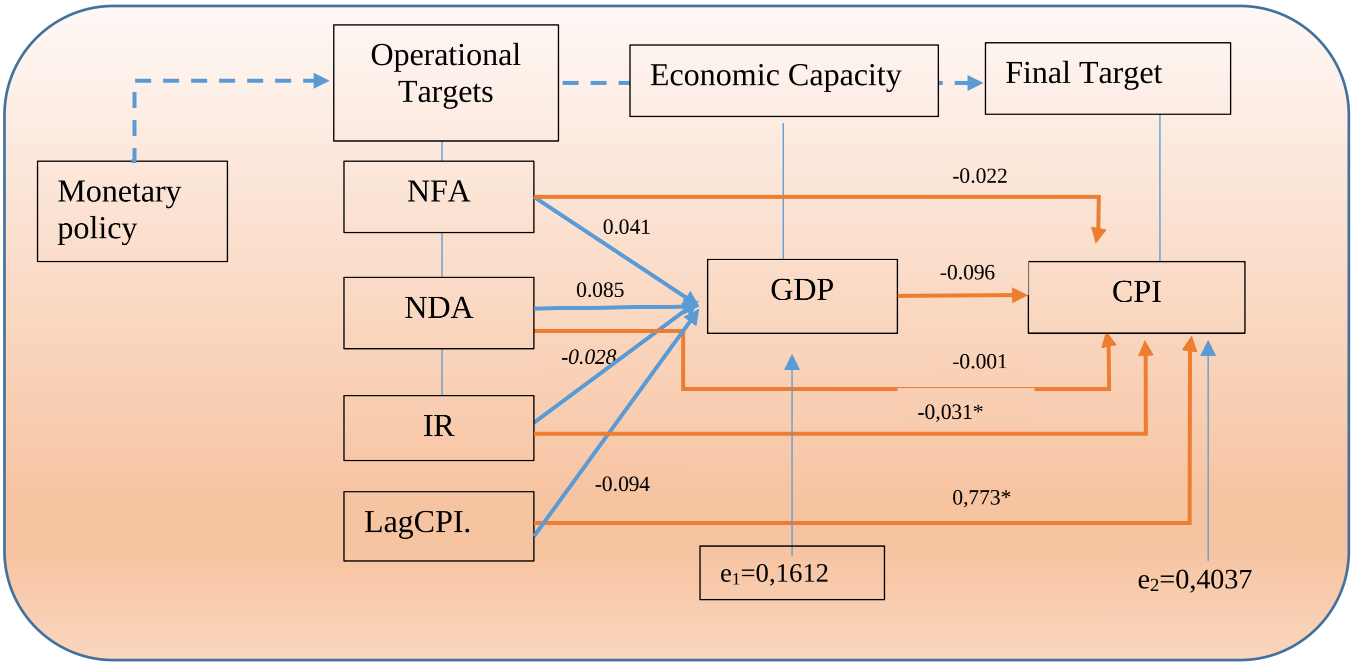

Figure 2. Path Analysis of the Effect of NFA, NDA, and IR on CPI with GDP as Mediation Variables

Mediating Variables, GDP, Testing:
Step 1
Empirical Model 1, with the regression equation of NFA. NDA. Interest rate and lagCPI against Economic capacity/GDP (Y1) result in significant coefficients b_1, b_2, b_3, and b_4 at alpha = 0.05 ($p < 0.05$), and it meets classical assumptions.

Step 2
Empirical Model 3, with the regression equation of NFA, NDA, Interest Rates, LagCPI, and GDP against CPI. The regression coefficient of NDA of -0.001 was not significant at alpha

0.05 with Sig. 0.956. The regression coefficient of NFA of -0.022 was not significant at alpha 0.05 with Sig. 0.462. Likewise, the regression coefficient of GDP of -0.096 was not significant at alpha 0.05 with Sig. 0.651. Two variables having been statistically proven to have a significant effect on alpha 0.05 against CPI are interest rates and lagCPI. Each has a regression coefficient of -0.031 and 0.0773, with each having a Sig. 0.013 and 0,000. Empirical model 3 meets the requirements of classical assumptions.

Step 3

In the regression equation of empirical model 1, the value of the regression coefficient of NFA, NDA, interest rate (IR), and CPI with a t-1 period (lagCPI) proved significant ($p < 0.05$). However, in the regression coefficients of NFA, NDA, interest rates (IR), and CPI with a t-1 period (lagCPI) and GDP in the regression equation of empirical model 3, there are only two beta values proved significant at alpha 0.05, which were the regression coefficient of interest rate (IR) and lagCPI. Then, it can be concluded that GDP does not mediate the effect (not intervening variables) of NFA, NDA, interest rate (IR), and CPI with a t-1 period (lagCPI) on CPI. To convince the conclusion that GDP does not mediate (include intervening variables) the effect of NFA, NDA, interest rates (IR), and CPI with a t-1 period (lagCPI) on CPI, a Sobel test is performed for each variable. The Sobel test results also showed that GDP is not a mediating variable. It is reflected in the results of the calculations of the Sobel test presented in Table 13.

Table 13. Sobel Test of the Effect of NFA, NDA, IR, and LagCPI on CPI with GDP as Mediation Variables

Variable	Sobel Test	Prob 1 Tail	Prob 2 Tail
NFA	1.3275	1.7846	0.8923
NDA	1.3453	2.3570	0.1785
Interest Rate (IR)	-1.3380	2.3618	0.1809
LagCPI.	0.8799	0.7576	0.3788

Discussion

Starting from the framework of monetary policy operations, this study formulates the hypothesis that the operational target of monetary policy, the money supply or interest rates, play a role in efforts to control prices through their effects on economic capacity or economic activity. Assuming measured economic capacity with the gross domestic product (GDP), it is hypothesized that GDP is a mediating variable or 'intervening variable' from the effect of operational targets on the money supply grouped in net foreign assets and net domestic assets and interest rates on price stability reflected in CPI. Upon this hypothesis, path analysis shows that:

1. NFA is statistically proven to have a significant effect on GDP
2. NDA is statistically proven to have a significant effect on GDP
3. Interest rate is statistically proven to have a significant effect on GDP
4. NFA, NDA, and Interest rate simultaneously have a significant effect on GDP
5. NFA is not statistically proven to have a significant effect on the Prices (CPI)
6. NDA is not statistically proven to have a significant effect on the Prices (CPI)
7. Interest rate is statistically proven to have a significant effect on Prices (CPI)
8. GDP is not statistically proven to have a significant effect on the Prices (CPI)
9. GDP is not statistically proven as mediating variable of NFA, NDA, and Interest rate against GDP

In testing the model, estimation model 1, GDP, is a function of NFA, NDA, and Interest Rates meeting the classical assumptions. Therefore, the estimation model 1 can be determined as an empirical model 1 that can be the forecasting instrument which is Best Linear Unbiased Estimator (BLUE). However, when the model is simulated by making GDP as one of the independent variables and placing the CPI as a dependent variable, the classic assumption test shows the existence of auto-correlation. To overcome the existence of auto-correlation, a new variable was added to the model, which is the CPI with the t-1 period (lagCPI), assuming that the CPI with the t period was affected by the CPI of the previous month. By adding the lagCPI variable, the auto-correlation problem can be overcome. The estimation model with the addition of the lagCPI variable is processed using a regression approach and is determined as an empirical model 3, which is the CPI is a function of the NFA, NDA, Interest Rates, GDP, and lagCPI.

Empirical model 3 showed that NFA, NDA, GDP do not have a significant effect on CPI, while interest rates and lagCPI are proven to have a significant effect on CPI. As it can be seen from the regression results, the money supply variable consisting of NFA and NDA has a positive value, but it has not been proven to have a significant effect, meaning that any increase in money supply will cause the increase of prices reflected in the CPI to rise. The effect of NFA and NDA on the prices that is not significant occurs because the money supply is the overall value of money in the community, and money in the bank is not counted as money in circulation. According to David Ricardo, the factor affecting CPI is the price level. For instance, when the prices of goods and services have increased, the CPI and the money supply will increase. Likewise, the results of this study do not prove the effect of GDP on the Prices, nor the GDP as a mediating variable, the effect of the money supply consisting of NFA and NDA on prices. The explanation above is that the CPI is used to measure the rate of price growth of an economy. The CPI reflects the average combined price of consumption. Thus, the CPI does not provide a complete picture of the aggregate expenditure of an economy. Therefore, prices in the production chain, future price pressures, and global competition are not included in the CPI.

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CONCLUSION

With the mechanism of monetary policy transmission, monetary policy instruments affect the stability of prices reflected in the consumer price index (CPI) through the operational target of the money supply consisting of net foreign assets (NFA), net domestic assets (NDA), interest rates, as well as economic capacity. In this study, it was hypothesized that measured economic capacity with the gross domestic product (GDP) is a mediating variable or 'intervening variable' from the effect of operational targets on the money supply grouped in net foreign assets and net domestic assets, and the effect of interest rates on price stability reflected in CPI. By using periodic series data for 9 years or 108 months, this study showed that:

1. Net foreign assets and net domestic assets were statistically proven to have a significant positive effect on GDP, while interest rates have a negative effect.
2. Net foreign assets, net domestic assets, and interest rates were simultaneously proven to have a significant effect on GDP
3. Net foreign assets and net domestic assets are not statistically proven to affect Prices (CPI).
4. Interest Rates are statistically proven to have a significant effect on Prices (CPI)
5. GDP is not statistically proven to have a significant effect on Prices (CPI)
6. GDP is not proven statistically as a mediating variable of NFA, NDA, and interest rates to GDP.

Overall, the findings showed that GDP, which does not have a significant effect on prices are consistent with the theory developed by Milton Friedman saying that price stability/inflation is a monetary phenomenon so that the objective of achieving price stability is simply done by controlling the money supply.

The implication of managerial or policy starting from these findings is that operational interest rates are more effective if the focus of the ultimate objective is price stability. However, if the ultimate objective or goal is economic growth, the contribution of operational targets to the money supply consisting of net foreign assets and net domestic assets is more effective than a contribution to operational interest rates. Overall, the findings of this study reinforce the absence of a classical dichotomy, and Bank Indonesia as the holder of monetary authority also plays a large role in the stability of the real sector because the operational target of the money supply is proven to have a significant effect on economic capacity. It means that the operational target for the money supply can be a factor that can accelerate economic growth. The limitation of this study is that the path analysis only observes at the one-way relationship. Meanwhile, when discussing the relationship between monetary policy, interest rates, money supply, economic capacity, and price stability, empirically, there is a more complex relationship because the variables affect one another. Therefore, how the causality relationship between variables in the transmission of monetary policy will be an interesting research topic.

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THE EFFECT OF CREDIT RISK AS A MEDIATOR BETWEEN LIQUIDITY AND CAPITAL ADEQUACY ON BANK PERFORMANCE IN BANKING COMPANIES LISTED ON THE IDX

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ABSTRACT

Liquidity is one of the main factors faced by banking companies because its main relationship is channeling funds from third parties with bank performance. This study aims to examine credit risk which is proxied by Raroc (return adjusted on risk capital) as a mediator of the effect of liquidity (loan to deposit ratio) on the bank performance (return on assets). The analytical tool used in this study is SEM-WarpPLS 5.0, this study shows that credit risk can mediate the effect of liquidity on bank performance. This shows that the greater the credit risk, the smaller the bank's performance.

Keywords: Financial Intermediation Theory; Liquidity; Bank Performance.

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INTRODUCTION

Banks can be defined through their functions in the economy, services offered to customers and their existence in law. A bank is an intermediary institution that collects funds from the public in the form of deposits and channels them back to the public in the form of credit or other forms to accelerate the overall economic growth of a country. Banking in developing countries has become one of the institutions that play a very important role in domestic economic activities because it becomes one of the sources of funds needed for domestic market activities when other funding sources such as the capital market are still weak and limited and have not been able to provide adequate funding sources for economic activity and investment (Saci et al., 2009).

An important objective of the LDR calculation is to find out and assess how far the bank has a health condition in carrying out its operations or business activities. In other words, LDR is used as an indicator to determine the level of vulnerability of a bank. Some theories related to liquidity management include: Commercial loan theory: the theory emphasizes that banks should only provide loans or short-term loans that are productive and can have the ability to repay loans (self-liquidating) Shiftability theory, this theory is based on the ability a bank to exchange one form of wealth with another form to fulfill its liquidity. The doctrine of anticipated income, according to this theory, it is important that the loan will be paid back or it will not be determined by the income that is expected to be obtained from activities that are either directly financed with the loan or indirectly.

Marozva (2015) stated that LDR is the financial ratio of banking companies related to liquidity aspects. LDR is a traditional measurement that shows time deposits, current accounts, savings, etc. That are used in fulfilling customers' loan requests. This ratio is used to measure the level of liquidity. A high ratio shows that a bank lends all of its funds (loan-up) or is relatively illiquid (illiquid). Conversely, a low ratio indicates a liquid bank with excess capacity of funds that are ready to lend (Vuong Thao Tran, 2016). To achieve its goal of serving its customers and making profits, banks must create a policy of public liquidity (Handorf, 2014). Liquidity illustrates the level of ability of a bank in fulfilling requests / withdrawals of depositors. The maximum liquidity of course can be obtained by banks by holding all activities in the form of cash. This method is certainly not correct because if all assets are in cash, there is no credit or investment, even though the bank also still incurred funds and other operating costs and the bank must cover these costs. Olagunju et al. (2012), Cornett et al. (2011) if a bank's liquidity level is high, the profitability level will decrease. Conversely, if the bank experiences a low level of liquidity, it will cause an increase in the level of profitability. Some research results show the effect of LDR on ROA is significantly positive where the LDR increases, the ROA will increase (Jara-Bertin et al., 2014), (Ahmad, 2016).

An assessment of the capital ratio that is commonly used to measure the health of banks is the Capital Adequacy Ratio (CAR) which is based on the ratio of capital to Risk-Weighted Assets (ATMR), as stipulated in Bank Indonesia Directors Decree Number 26/20 / KEP / DIR concerning Obligations Minimum Capital Supply (KPPM) and Bank Indonesia Circular Letter Number 26/2 / BPPP concerning Minimum Capital Requirements. With the increase in own capital, bank health related to the capital ratio (CAR) will increase. Since the crisis period until now the CAR has become the main reference in determining bank health (BI Dir Decree of

April 1999), where one API program is to require the minimum capital for commercial banks (including BPD) to be 100 billion with a minimum CAR of 8% no later than the year 2010.

CAR is a capital ratio that shows the ability of banks to provide funds for business development needs and to accommodate the risk of loss of funds caused by bank operations. CAR shows the extent to which a decline in bank assets can still be covered by available bank equity (Taswan, 2010). The higher CAR, the more capital owned by banks to cover the decline in assets. CAR is a capital ratio that shows the ability of banks to provide funds for business development needs and to accommodate the risk of loss of funds caused by bank operations. CAR indicates the extent to which a decline in bank assets can still be closed by the available Equity bank, the higher the CAR the better the condition of a bank (Gambacorta and Shin, 2016).

Credit risk is a risk that promises cash flow from loan income and other securities owned by financial institutions that may not be fully paid. The credit risk is very dominant in the composition of the capital adequacy ratio (capital adequacy ratio), where 70% of capital is allocated for credit risk and 30% of market risk and operational risk. Thus credit risk is the main cause of bank failures and risk is most visible in the face of bank managers (Garr, 2013). Based on Law No.10 of 1998, it is said that the amount of credit distribution depends on the number of third party funds that can be collected by banks. However, in its implementation, not all funds collected from the community can be channeled properly and lending to the public often experiences obstacles in repaying loans to banks, so banks will experience problem loans. In addition to third party funds there are also other factors that influence credit distribution, namely the level of bank capital adequacy.

LITERATURE REVIEW

Liquidity Preference Theory

Liquidity Preference Theory (liquidity desire theory), which was originally developed by (J.M. Keynes, 1946) analyzes the equilibrium interest rate through the interaction of the money supply with the public aggregate demand for holding money. Keynes assumes that most individuals hold wealth in only two forms: money and bonds. According to Keynes, money is equivalent to currencies and demand deposits, which pay no interest or pay very low interest, but are very liquid and can be used for transactions. The liquidity preference theory is based on the demand and supply of money supply and the view that all financial decisions emphasize the money aspect of liquidity.

Therefore the loan fund model is developed based on the flow of funds in the financial system and views financial decisions as made with a broader principle of liquidity. Historically interest rates are almost as old as human civilization, in other words interest rates have been around for a long time. This is consistent with the opinion expressed by (Modigliani, 1944) which states that people have borrowed goods from others and sometimes they have asked for compensation for services rendered. The rewards are called rent, which is the price of borrowing someone else's property. Whereas Tobin (1958) states that interest is the amount of funds, valued from money, received by the lender (the creditor), while the interest rate is the ratio of interest to the loan amount. So the interest rate is the price of borrowing money to use purchasing power. Interest rates are one of the variables in the economy that is always closely watched because of its broad impact. Interest directly affects people's daily lives and has an important impact on the health of the economy in terms of consumption, credit, bonds, and savings.

Financial intermediation is the key to understanding why profits are supervised by an intermediary which is not carried out by the depositor (Diamond, Douglas W, 1984). Financial intermediation allows the best contracts and large allocations as a positive role in the financial intermediation process. In general loans and deposits without high leverage result in a low probability of default (default). However, with the model of monitoring and diversifying the increase in lending and savings the possibility of default remains low. Diamond (1984) developed a theory of financial intermediation on moral hazard, where the presence of banks as delegated monitoring can reduce the monitoring costs of the customer (investor) to the borrower (borrower). The efficiency resulting from this mechanism will make it easier for borrowers to minimize costs when producing. Capital providers will delegate to banking to monitor borrowers. Therefore, the bank will examine all current activities and future prospects of the debtor to protect depositors and shareholders**.**

Financial Intermediation Theory

A number of other theories include Allen and Santomero (1997), Bikker et al. (2003), further said that why banks, and financial intermediaries in general can exist because they can mitigate the liquidity risk arising from the flow of funds from a surplus party (depositor) by becoming an agent against those who need funds (borrowers). The risk arises because of the occurrence of asymmetric information, contracting costs, and scale mismatches between the liquidity of the fund and the liquidity of the parties that need funds. The basic theory of intermediation from financial intermediary institutions is to see banks as solutions to these problems, because banks have a comparative advantage about all information about the crediting values of debtors (Pyle, 1971), (Scholes et al., 1976) banks are better able to monitor debtors than Individual creditors (Leland and Pyle, 1977), banks can provide greater liquidity than funds collected from the household sector and business sector and can issue demand deposits that can be exchanged for funds (Fama, 1980)**.**

Agency Theory

Agency theory is a contract between the owner (principal) and manager (agent) (Michael et al., 1976). The proper contract planning between the owner and manager to equalize the interests is the core problem of agency theory. Agency theory is based on several assumptions (Eisenhardt, 1989). These assumptions are assumptions about human nature, organizational assumptions, information assumptions. The assumption of human nature emphasizes that humans have selfishness and do not want to take risks. Organizational assumptions emphasize conflicts between members of the organization. Information assumption is that information is a commodity that can be traded. Michael et al. (1976) in the company's daily activities involved some parties who seemed to be mutually binding cooperation contracts to achieve common goals. They are shareholders, managers, employees, suppliers, and users who play roles in their interests and hope that the other party will act in accordance with what was agreed upon. Here we see the rational behavior that lies behind the framework of the principal agent's relationship. The relationship between agents and principals basically arises because there is a pattern of management of a company organization that separates owners (shareholders) from managers (managers). Shareholders act as principals who give the highest authority to run the company to managers who act as agents. The assumption is that the agent will act on behalf of and fully in the interests of shareholders. This pattern is common when companies grow and develop. It can no longer be managed like a small company where the owner can double as a manager.

Hypothesis

Njuguna and Tabhita (2015) Company liquidity is the main determinant of a company's profitability. Liquidity is the amount of capital available for investment and expenditure. Capital includes cash, credit and equity. Most capital is credit rather than cash. The relationship between bank liquidity as measured by a loan to deposit ratio (LDR) with profitability on return on assets (ROA) has been examined in banks in Europe with significant positive results (Bourke, 1989). This finding shows that the greater the amount of credit extended, the greater the interest income received by banks so that the return on assets increases. The results of this study also showed that the greater the source of idle bank funds (idle funds) the smaller the profitability.

Hypothesis 1: The loan to deposit ratio has a positive effect on return on assets.

Capital Adequacy Ratio (CAR) as an indicator of a bank's ability to cover a decline in assets as a result of losses suffered by banks, the size of the CAR is determined by the ability of banks to generate profits and the composition of funds allocated to assets according to their level of risk. 11/3 / DPNP dated January 27, 2009 concerning Calculation of Risk-Weighted Assets (ATMR) for Operational Risk Using the Basic Indicator Approach (PID) that the CAR ratio takes into account the credit risk, operational risk, and CAR market risk determined by Bank Indonesia is minimal 8% as stated in BI Regulation Number 10/15 / PBI / 2008 Article 2 Paragraph 1 and line with standards set by the Bank of International Settlements (BIS).

Hypothesis 2: Capital adequacy ratio has a positive effect on return on assets.

The liquidity ratio aims to assess the company's financial ability to meet its short-term obligations and financial payment commitments. The higher the liquidity ratio, the better it will be for investors. Companies that have high liquidity ratios will be of interest to investors and will also impact on stock prices that tend to rise due to high demand. The increase in stock prices indicates an increase in company performance and this will also have an impact on investors because they will get a high rate of return on their investment. (Cinzia Baldan *, 2012), (Putranto et al., 2014), (Jara-Bertin et al., 2014), (Petria et al., 2015), (Owoputi et al., 2014).

Hypothesis 3: Raroc can mediate LDR against ROA

Capital adequacy is a policy or regulation of a company or banking in handling its capital. Capital is funds invested by the owner in the context of establishing a business entity that is intended to finance the bank's business activities in addition to meeting regulations set by the monetary authority (Hrishikes Bhattacharya, 2013). Adequate capital can increase public confidence, because it indicates that banks can accommodate the possibility of loss risk that will be experienced by banks due to bank operational activities. That way, capital adequacy will have an impact on increasing profits or profitability of banks through loan interest. CAR is an indicator that is often used to measure the level of bank capital adequacy.

Hypothesis 4: Raroc can mediate CAR against ROA

Credit risk can be in the form of sovereign risk (risk), this risk arises when a country imposes foreign exchange control (foreign exchange control) so that it becomes impossible for other parties to pay off their obligations. Default risk is company risk, while the sovereign risk is country risk. Another form of credit risk is settlement risk that arises when two payments in foreign currencies are made on the same day, this risk occurs when the counterparty (the other party) may experience a default after the institution makes payments. On settlement, the amount of the default counterparty loss (the other party) is equal to the full value to be paid. While the amount of exposure before the settlement is only the net value of the two payments. Hypothesis 5: Raroc has a negative effect on Return On Assets.

RESEARCH METHODS

Samples and Data

The object of this research is the banking companies listed on the stock exchange from 2010 to 2018. The type of data in this documentary is data in the form of financial statements of banking companies in Indonesia for the period 2010-2018. For the source of the data is secondary data, that is data obtained from other parties, in this case the data source is the Indonesian stock exchange in the form of financial reports (annual report) at the address www.idx.co.id. and Bloomberg. Data using panel/pooling data, combined time series data with cross-section data so that a large sample can be obtained.

Operational Variable

Independent Variable

Bank Liquidity that can carry out the intermediation function is a bank that can collect savings funds and then distribute it in the form of credit in a balanced manner or banking terms is the bank has a loan to deposit ratio (LDR) according to the target. The LDR of banks that are on target for commercial banks in Indonesia is a minimum of 78 percent and a maximum of 92 percent (Bank Indonesia, 2013). Liquidity in this study was proxied by LDR (Schmaltz, 2009), (Shen et al., 2009), (Arif and Nauman Anees, 2012), (Imbierowicz and Rauch, 2014), (Alzorqan, 2014), (Foran and O ', Sullivan, 2014),

LDR = (total loans) / (third party funds) x 100% Independent variable

Capital Adequacy, Banks are required to provide a minimum capital of 8% of risk-weighted assets (RWA). For banks that own or exercise control over the company. The said obligation applies to banks individually and banks in consolidation with companies. To anticipate losses according to the risk profile, BI can require banks to provide a minimum capital of more than 8 percent of RWA. This is due to the assessment of capital factors based on the ratio of Capital to Risk-Weighted Assets (ATMR). Khaled A. Zedan (2017) Anshika (2016), Ezike and Oke (2013) use CAR measurements for capital adequacy. Capital factor valuation is measured using the Capital Adequacy Ratio (CAR) with the following formula:

CAR = (Bank Capital) / (Risk Weighted Assets) x 100%

Dependent Variable

Financial ratios are ratios compiled from financial data obtained from the income statement or statement of financial position (balance sheet) or both. By using financial ratios, it can be seen the level of liquidity, profitability or solvency of the company. Financial ratios also have predictive power to predict the likelihood of a company's failure (Whittington *, 1980). Financial ratios can be used to determine the performance of a company in an industry, company performance from one time to another time, as well as company performance compared to predetermined criteria, measurement of bank performance using data based on financial statements called financial performance (Gibson, 2005) Return on assets (ROA) is the most widely used and most popular profitability ratio to measure a company's financial performance and to find out the company's prospects in the future. Bank profitability or profitability is the ability of banks to generate profits, one of which is the return on assets, which is calculated by comparing earnings before tax and total assets (Bank Indonesia 2011). Return on assets (ROA) measures bank management in order to utilize physical resources and financial resources from banks to generate returns (Wall, 1987).

ROA = (Profit Before Tax) / (Total Assets) x 100%

Mediation Variable

Raroc (return adjusted risk on capital) is a tool in risk management in the rank of testing a credit risk in the context of risk management in a bank. Raroc was popularized by the Bankers Trust since 1979 which was then followed and used by various banks. According to Zaik et al. (1996) required risk measurement with reasons for the purpose of risk management determining how much each transaction contributed to total bank risk.

Raroc = (Adjusted Income) / (Capital at Risk)

Where, Adjusted Income is adjusted to equal net profit after interest and taxes (income spread + operating costs-tax). Capital at risk is usually set at the same size as an unexpected loss. Research using Raroc (Kupiec, 2001), (MCGuire, 1999), (Ieraci, 2009).size, this dissertation research follows, (Zhou & Lao, 2012), (Ahmed S. Alanazi et al., 2011) (Mnif. 2010), which uses Ln total assets for Company Size.

RESULT AND DISCUSSION

Table 1. The Results of The Path Coefficient and P-Value

Path Description	Path Koefisien	P-Value
LDR → ROA	0.174	<0.001
CAR→ ROA	-0.063	<0.001
LDR → RAROC	-0.028	0.321
CAR →RAROC	-0.200	0.002
RAROC → ROA	0.323	0.147

The first hypothesis testing results show that liquidity has a positive effect on bank performance, this is indicated by a coefficient value of 0.174 and p-value <0.001, so that the first hypothesis is accepted. For testing the second hypothesis, capital adequacy has a positive effect on bank performance with a coefficient of -0.063 and p-value <0.001 consistent with the hypothesis so that this hypothesis is accepted. Furthermore, the third hypothesis is that credit risk can mediate liquidity on bank performance, with a coefficient of -0.200 and p-value 0.002, so this third hypothesis is rejected, but its influence is accepted in line with the hypothesis. The fourth hypothesis is that credit risk can mediate capital adequacy on bank performance, where the coefficient value is 0.323 and p-value is 0.147, this hypothesis is accepted however. And then the fifth hypothesis of credit risk has a negative effect on bank performance with a coefficient of -0.0.28 and a p-value of 0.321 then this hypothesis is accepted but not significant. The sixth hypothesis is that interest rate risk has a negative effect on bank performance, where the coefficient value is 0.106 and the p-value is 0.039, which means that it is significant at 3 percent, so this hypothesis is accepted.

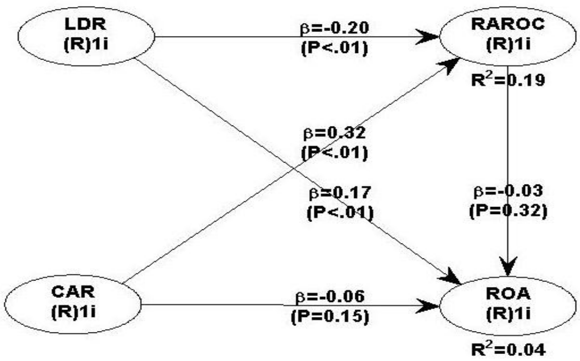

Figure 1. Full Model Image

CONCLUSION

Based on the results of testing and analysis with WarpPLS 5.0, we get the following conclusions: credit risk which is proxied by Raroc can mediate liquidity on bank performance, this is in line with several theories relating to liquidity management, among others: Commercial loan theory: the theory emphasizes that banks should only provide loans or short-term loans that are nature productive and can have the ability to repay loans (self liquidating) Shiftability theory, this theory is based on the ability of banks to exchange some form of wealth with other forms to meet liquidity. The doctrine of anticipated income, according to this theory, it is important that the loan will be paid back or it will not be determined by the income that is expected to be obtained from activities that are either directly financed with the loan or indirectly.

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THE ROLE OF DUALITY MANAGERIAL OWNERSHIP AND BOARDS ON IPO VALUE (AN EMPIRICAL EVIDENCE OF INDONESIAN FIRMS)

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ABSTRACT

The research aims to find the impact of ownership retention, managerial ownership, and boards on value IPO premium and underpricing. We investigate by using hand collect data 202 IPO prospectuses during 2008-2017 and using Warp PLS 5.0 to compute the data. Our finding suggests that may use to guide the investor in making informed decisions to see the level of the proportion of sharehold by old ownership and management. When the high level of ownership retention and managerial ownership, make the value IPO premium and underpricing will be high. On the other hand duality of the managerial role in firms making the value will be achieved. This paper contributes to the value of IPO premium and underpricing literature when influence by ownership share on initial public offerings context of emerging markets.

Keywords: Ownership retention; Managerial Ownership; Boards; IPO premium; underpricing

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INTRODUCTION

Good Corporate Governance requires good management in an organization. According to Gul et al (2012) corporate governance mechanisms are mechanisms that protect the interests of shareholders. The corporate governance mechanism is a system that can provide protection and guarantees of rights to stakeholders, including shareholders, lenders, employees, executives, government, customers, and other stakeholders. According to Shleifer and Vishny (1997) corporate governance is a way or mechanism to convince capital owners to obtain an appropriate return or return from their investment. Yermack (1996) states that there are two indicators of the first corporate governance mechanism of internal corporate governance mechanisms proxied by the number of directors, the proportion of independent commissioners, and debt to equity. Second, the size of external corporate governance mechanisms proxied by institutional ownership.

In the perspective of agency theory, there is a conflict within the company due to the separation of ownership and control in the company. To reduce this conflict, it is indicated by the more concentrated ownership of a person or an institution, the stronger the control will be in the company. The relationship between ownership structure and firm value can be examined using the agency theory of (Jensen and Meckling, 1976). So that the greater the proportion of management ownership in the company, the management will try to improve its performance for the benefit of shareholders.

According to Chahine and Tohmé (2009), managerial ownership shows the dual role of a manager, with the dual role, the manager does not want the company to experience financial difficulties or even bankruptcy. This is because the manager will get a different impact on his position. As a manager he could lose the other side of the incentive as a shareholder he would lose his return or even lose his investment. This is done by the manager because the manager is the shareholder of the company. By increasing the company's performance, the greater the results obtained by the manager from the investment invested in the company. Managerial ownership is a situation where the manager has a share of the company or in other words the manager and owner or shareholder of the company.

In the statement, Yasser and Mamun (2015) the ownership structure has 2 (two) implications, namely (1) the structure of ownership of the state, institutions, and individual shareholders. (2) ownership concentration which comprises the percentage of ownership. The high concentration of ownership by some people will make a lack of coordination costs, (Dharwadkar et al, 2000). This is due to the small number of new owners. The other side Bruton et al (2010) argues that the concentration of ownership retained by the company owner at the time of the IPO is an important factor that can reduce agency conflicts that have an impact on its performance. So that it will reduce agency problems between agents and principals. Thus increasing the number of members in a council will be more effective in terms of supervision and monitoring. So that companies with a large board composition will display good performance volatility with a low risk of bankruptcy (Nakano and Nguyen, 2012). So that the greater the number of boards of directors shows the increasing effectiveness of supervision and monitoring in protecting the shareholders who retain their shares from the risk of failure during the IPO.

The Board is given the duties and responsibilities of supervising the management of the company and reporting everything related in the company to the board of commissioners. As a company organ, it is collegially responsible and responsible for managing the company. During the IPO process, the board of directors works and is responsible jointly to obtain good results, (Badru et al, 2017). In a previous study Darmadi and Gunawan (2013), emphasized the influence of the Board, managerial ownership, and old owner ownership on stock performance in cases in Indonesia. In other studies, Chahine and Goergen (2013) emphasized the role of the

Board, managerial, and ownership of the value of premium IPOs. However, it does not identify the dual role of the manager as owner.

As a reference reinforces the reasons for this research, the gap between the numbers the board of directors and underpricing is used as a reference. Things done to see furthermore the role of the board of directors, the other side is in the management company, but the other side of the directors are shareholders and long-time owners to companies that will conduct an initial public offering on the capital market Indonesia. In other studies, the composition of the board has a negative effect on underpricing, (Certo et al. 2001). Then by Darmadi and Gunawan (2013) found that there was a negative relationship between board structure and level underpricing at the time of the initial sale of shares. Dolvin's research and Kirby (2016b) said that board size is negatively related significantly with underpricing. The other side Lin and Chuang (2011), said the composition of the board has the potential to increase underpricing and share performance first sales. This is supported by Hearn (2011) that the composition of the board directors is positively related to the level of underpricing. On the other hand inside Orphan research (2011) found no significant influence on the board of directors towards underpricing. Upon this gap, concepts will be formed which is expected to be able to explain the business phenomenon that occurs in research.

The gap from previous research can then lead the formation of a novelty that can bridge the research gap in research. Interestingly, there are differences in the number of directors in a company offering initial shares that have an underpricing value different, even though the company is engaged in a business line the same. The difference in underpricing is due to differences in information between market participants and owners or management within the company which made an initial public offering.

Become a universal phenomenon that underpricing occurs at each Initial public offering, (Escobari and Serrano, 2016). For listed companies, Underpricing will hurt them, because they fail to raise funds to the maximum, but profitable for investors (Rahim and Othman Yong 2010), because they get a profit (capital gain) from the price difference opening and closing. The underpricing phenomenon is a signal which gives a positive sign that the company is issuing initial shares has a probability of future profits. In Indonesia since the opening of the stock exchange, many companies have register (listing). The value of this underpricing is known through the trading first day on the trading floor. Ritter (1991), the difference in ratio between booking prices and closing is the initial return. As a universal phenomenon Underpricing is attractive to investors but this is detrimental to the issuer company during the first trading session. According to Maheshwari and Agrawal (2015) underpricing is a universal phenomenon that occurs in IPO whereas Overprice is a big concern when reducing investor prosperity. The issuer company listing in the capital market period 2010 to 2017, there were companies experiencing underpricing, 14 overpricing, and normal prices during the bidding process in the market secondary.

This phenomenon becomes interesting, because it is not only an underpricing event It can happen, but it can be overpriced in the offer of its shares. Grinblatt and Hwang (1989) say that the gap is informed investors and uninformed investors make share prices underpricing. As a result, Escobari and Serrano (2016), the group that did not get it good information will get overpriced shares in more portions large (uninformed investors). Whereas the group that receives information regarding the condition of the company, (informed investors) will buy shares in the primary market which are believed to be underpricing during the session secondary market closure. Here are 177 listed companies listing in the period 2010 to 2017, on the stock exchange Indonesia, which is experiencing underpricing and overpricing.

Table.1 Listing companies on the IDX for the period 2010 to 2017

Tahun	Emiten IPO	% Underpricing		% Wajar		% Overpricing	
2010	23	15	65%	1	4%	7	30%
2011	26	9	35%	5	19%	12	46%
2012	22	12	55%	4	18%	6	27%
2013	30	13	43%	1	3%	16	53%
2014	24	13	54%	1	4%	10	41%
2015	16	6	37%	1	6%	9	56%
2016	15	7	47%	1	6%	7	47%
2017	21	6	29%	10	47%	5	24%
Total	177	81	45,76%	24	13,56%	72	40,68%

This study aims to see the effect of Ownership retention, Managerial Ownership, and Board on the value IPO premium of the company's. The difference with the previous research, that the sample in this study looked at the role of manager ownership as well as the owner of the company towards the IPO premium value and stock performance in the Indonesian capital market during the period 2008-2017.

LITERATURE REVIEW

Ownership Retention and IPO value

When including a subsection you must use, for its heading, small letters, 12pt, left-justified, bold, Times New Roman as here. In Fan (2007), study, it was found that when a company owner who decides to have a greater proportion of shares in his company will be a signal that the company is of good quality, this supports the opinion Leland and Pyle (1977) the old owners risk maintain a higher proportion of ownership but this will have a good influence in the future for the company. According to Kuntara Pukthuanthong-Le and Walker (2008), for investors, the proportion of shares was disclosed in the IPO company's prospectus, and the stock price determination by the underwriter was seen as a promising signal in the future. This is getting a good signal, where investors will be interested in investing to provide long-term benefits.

Information regarding the large proportion of shares maintained by the company will be the main signal to assess the credibility of a company He et al (2015). According to Grinblatt and Hwang (1989) there are two main principles regarding the signal theory that must be known and observed before to the IPO and difficult to imitate by other companies that have lower IPO quality. Companies with lower IPO quality tend to try to sell as many IPO shares as possible to minimize the risk. Unlike companies with good IPO quality, it will try to maintain the proportion of its shares from the possibility of being controlled by other parties, (Yong Wang and Zhang 2015). The proportion of share ownership can be used as a tool to show or predict cash flows in the future. According to Leland and Pyle (1977) the proportion of share ownership can be used as a signal about the value of the company by the issuer. This is due to the assumption that the owner of the company will not release or diversify his portfolio if he is sure that his company has good prospects in the future (Wang and Iqbal, 2006). So that the old owner will maintain the level of ownership if believes the future cash flow is better than the current cash flow. Old shareholders and management will not release the proportion of ownership in the company if they are not sure of the success of the IPO, (Yong et al, 2015). So that the proportion of holdings held by old shareholders can be considered as factors that help build investor confidence in the success of the company's IPO.

Furthermore, Fan (2007) found that this then gave birth to the assumption that the higher the level of ownership by the old owner (ownership retained by issuers), the higher the market valuation of the company's value, which was reflected in the performance of the stock itself. Leland and Pyle (1977) said that ownership retention can bring good cash flow in the future, then the cash flow only occurs during the IPO. Whereas in the long run ownership retention is one of the signals and one of the parameters, which in the long run in the market has various factors (Grinblatt and Hwang, 1989).

Keasey and McGuinness (1992) suggested that ownership retention by company owners at the time of the IPO had a positive impact on firm value. In the results of study Li et al (2005) said high retention rates attract more investor attention and provide quality assurance that increases the value of the IPO and its liquidity in the future. Where according to Cirillo, Romano, and Ardovino (2015) the IPO value reflects the potential value expected by investors from companies that conduct IPOs. Yasser and Mamun (2015), stated that the ownership structure has 2 (two) implications, namely (1) the structure of ownership of the state, institutions, and individual shareholders. (2) ownership concentration which comprises the percentage of ownership. Ownership of companies that conduct initial public offering (IPO), based on ownership by the old owner (ownership retention) which aims to expand the business. In the study Cirillo et al (2015), the percentage of family ownership as an old owner at the time of the IPO had a positive effect on the IPO Value. This happens because as owners of companies they come with a reputation for past success. Old owners always maintain the company's reputation in the eyes of investors that they have a responsibility to succeed in the IPO, (Mousa et al, 2014). The responsibility of the old owner is shown by the TMT (top management team) not only managing the IPO process but also directing the company's growth and negotiating the IPO price. With the retention rate by the old owner, it is assumed by investors that the owner wants the success of the IPO, so that the company's value becomes the quality reference, (Hull et al, 2013). With the ownership of a large owner will have a positive effect on the value of the IPO.

Based on all the statements and theoretical reviews above, a temporary conclusion can be given through the hypothesis

Hypothesis 1. Ownership retention during the IPO process has a positive effect on the value of the IPO.

Ownership Retention and Underpricing

There is also a liquidity theory which states that underpricing causes an increase in liquidity after the primary market (aftermarket) in the study of Li et al. (2005) there is direct evidence that the ownership of the old owner and underpricing has an influence that causes aftermarket share prices to increase. Li et al. (2005) found that the value of underpricing and ownership retention of companies is positively related and becomes an important variable in the decision of the initial public offering (IPO) as well (Leland and Pyle, 1977) argues that the proportion of share ownership held by the old owner (retained ownership) is wrong. one of the main factors in assessing IPO performance. Thus the proportion of shareholdings held by the old shareholders illustrates the level of management trust and the old shareholders will succeed in the IPO, (Fan, 2007), and (Leland and Pyle, 1977). Some of the reasons underlying this behavior are that when the old owners wanted good performance during the IPO, they retained a large number of shares, and when the initial bid managed to bring good performance, they also enjoyed the benefits, (Fan, 2007), Furthermore, after successfully raising funds for its investment plan, performance is no longer the concern of the old owners, where the price of shares on the secondary market has occurred according to market mechanisms, (He et al., 2015). The ownership by the old owner when the IPO becomes a good signal to investors about the quality of the issuer's company. The results of the research by (Leland and Pyle,

1977) said that management behavior withholds shares when the IPO is a good signal of the quality of the company. The results of (Fan, 2007), the study found that ownership of shares by old owners had a positive effect on the level of underpricing and company performance in the primary market.

In this context, it can be said that ownership by the old owner and management can increase the value of underpricing. Ahmed et al (2011) said ownership by previous owners had a positive effect on the performance of IPO companies. Jain dan Kini (1994) in Ahmed S. Alanazi et al (2011) found that IPOs in America performed well when the owners retained their majority shares. But there are differences in the results of Darmadi and Gunawan (2013) research, finding that there is a negative relationship between old ownership and underpricing of an IPO. Through the results of previous studies, there are differences in the results of the research. This is shown that retention ownership by the old owners in the company has a positive effect on underpricing, (Carey et al. 2016).

Whereas (Boulton and Campbell, 2016) said that overhang shares or retain ownership of old owners have a positive effect on underpricing, this is then supported by, (Dolvin and Kirby, 2016). Likewise before, Handa and Singh (2015), the term promoter ownership was used as a variable that had a positive effect on the level of underpricing. According to Fan (2007) the old owner of the company (Ownership Retention) has a positive impact on the value of underpricing. The presence of high ownership retention will be a good signal for potential investors because they assume that the conflict between principals and agents occurs when the spread of ownership can be minimized (Darmadi and Gunawan, 2013). Based on all the statements and theoretical reviews above, a temporary conclusion can be given through the hypothesis

Hypothesis 2. Ownership retention during the IPO process has a positive effect on Underpricing.

Ownership Managerial and IPO value

In the perspective of agency theory, there is a conflict within the company due to the separation of ownership and control in the company, (Jensen and Meckling, 1976). To reduce this conflict, it is indicated by the more concentrated ownership of a person or an institution, the stronger the control will be in the company. Likewise, the greater the proportion of management ownership in a company, the management will try to improve its performance for the benefit of shareholders, (Mohd-Rashid et al, 2016). Managerial ownership shows the dual role of a manager.

With this dual role, managers do not want companies to experience financial difficulties or even bankruptcy. This is because the manager will get a different impact on his position. According to Chahine and Goergen (2013) ownership structure has a positive effect on IPO Value. Some previous research shows a positive relationship between ownership structure and firm value, where high managerial ownership will encourage the effectiveness of monitoring so that there is a convergence between the goals of managers and shareholders. Eugene F Fama and Jensen (1983) statement that the existence of large and concentrated ownership can control managerial performance. Chahine and Goergen (2013) Ownership structure have a positive effect on the value of the IPO. Whereas in the managerial context, ownership of family managers has a positive effect on the value of the IPO, (Cirillo et al. 2015).

Ownership structure has a positive effect on the value of IPO, in the previous study, Leitterstrof dan Rau (2014), Field dan Sheehan (2004) Jaskiwicz et al (2005), found that managerial ownership was positively related to the formation of firm value during the IPO. Increasing high managerial ownership can encourage exploitation by majority shareholders against minority shareholders, so that this will be responded to by the public in the form of a decrease in the company's IPO value. However, high managerial ownership can encourage better monitoring activities so that the expected conflict between management and shareholders is reduced, which increases in the company's IPO value.

As a manager he could lose the other side of the incentive as a shareholder he would lose his return or even lose his investment. This is done by the manager because the manager is the shareholder of the company. By increasing the company's performance, the greater the results obtained by the manager from the investment invested in the company. Managerial ownership is a situation where the manager has a share of the company or in other words the manager and owner or shareholder of the company. In high managerial ownership can encourage better monitoring activities so that the expected conflict between management and shareholders is reduced, which has an impact on increasing the value of the company. But on the other hand, an increase in high managerial ownership can encourage the exploitation of the majority shareholders of minority shareholdings, so that this will be responded to by the public in the form of a decrease in company value.

Hypothesis 3. Managerial ownership during the IPO process has a positive effect on IPO Value.

Ownership Managerial and Underpricing

According to Jensen and Meckling (1976) the perspective of agency theory, there is a conflict within the company due to the separation of ownership and control in the company. To reduce this conflict, it is indicated by the more concentrated ownership of a person or an institution, the stronger the control will be in the company. Likewise, the greater the proportion of management ownership in a company, the management will try to improve its performance for the benefit of shareholders. The reason that high managerial ownership can encourage better monitoring activities so that the expected conflict between management and shareholders is reduced, which has an impact on increasing the value of the company.

Managerial ownership shows the dual role of a manager, (Salloum Charbel, 2013). With this dual role, managers do not want companies to experience financial difficulties or even bankruptcy. This is because the manager will get a different impact on his position. As a manager he could lose the other side of the incentive as a shareholder he would lose his return or even lose his investment. This is done by the manager because the manager is the shareholder of the company, (Michel et al, 2014). By increasing the company's performance, the greater the results obtained by the manager from the investment invested in the company. Managerial ownership is a situation where the manager has a share of the company or in other words the manager and owner or shareholder of the company,(Djerbi and Anis, 2015).

According to the study Jigao et al (2016), said that managerial ownership affects the performance of IPO companies. This is as stated by Yong Wang and Zhang (2015) that the proportion of share ownership by managers has a positive effect on underpricing. In the context of ownership of previous managers Howton, and Olson (2001) and Su (2004) found that managerial ownership has a positive effect on underpricing, and Nikbakht et al (2007) which states that CEO ownership has a positive effect on the level of underpricing.

Hypothesis 4. Managerial ownership at the time of the IPO process has a positive effect on underpricing

Relationship of the Boards to the Value of the IPO and Underpricing

In agency theory, the emergence of a conflict of interest is due to the separation of company ownership and control. This conflict comes from differences in perspectives and interests between shareholders (principals) and managers (agents), (Eugene F Fama and Jensen, 1983). So that a good monitoring mechanism is needed to control and harmonize the interests of shareholders and managers, (Jensen and Meckling, 1976). In the limited company law article 97, it is stated that the commissioner has to supervise the policies of the board of directors in running the company and advising the directors. The Board of Commissioners as a corporate organ is collectively responsible and responsible for supervising and advising the board of directors and ensuring that the company carries out good corporate governance. According to the National Commission on Governance Policy (KNKG, 2006) it is defined as a corporate organ that is collectively responsible and responsible for supervising and advising directors and ensuring that the company carries out Good corporate governance. The greater the number of commissioners will provide a lot of input and supervision to be done better.

For the implementation of the duties of the board of commissioners to be effective, it is necessary to fulfill the following principles:

1. The composition of the board of commissioners must enable decision making effectively, precisely and quickly, and can act independently
2. Members of the board of commissioners must be professional, namely with integrity and ability so that they can carry out their functions properly including ensuring that the board of directors has taken into account the interests of all stakeholders.
3. The supervisory and advisory functions of the board of commissioners include preventive actions, repairs, to temporary dismissals.

In the Indonesian Corporate Governance Forum (FGCI, 2001), the characteristics of companies in the Indonesian capital market embrace two-tier board systems wherein the board structure is divided into duties and executive functions (board of directors) and supervisory functions (board of commissioners). The size and composition of the board of directors are following the company's strategy, during the IPO (Badru et al., 2017). Meanwhile, according to Darmadi and Gunawan (2013) the characteristics of corporate governance are seen from the board structure and ownership structure in the company.

In the study of Bennedsen et al 2008) the greater the size and composition of the board of directors will have a positive impact on the performance and value of the company. Bennedsen et al (2008) noted the performance and value of the company will increase if the composition of the board of directors is dominated by people from outside the company, but on the contrary, it will decrease if the board of directors comes from the company itself. This opinion is supported by Xu (2012) that the IPO value has a positive correlation with the composition of the company's board of directors and the IPO value has a significant effect. Where managerial board involvement is instrumental in increasing the value of new companies (Mousa et al, 2014). Bennedsen et al (2008) stated that the size and composition of the board of directors will have a positive impact on the performance and value of the company whose composition is dominated by the board of directors from outside the company and vice versa the performance and value of the company become low when the size and composition of the board of directors come from within the company itself. There are differences in the results of Darmadi and Gunawan (2013) research finding that there is a negative relationship between the board structure and the level of underpricing at the time of the IPO, which is following the opinion Certo, Covin, Dalton, and Daily (2001) that the composition of the board has no relationship with stock performance in its initial sales. This contradiction by Hermalin and Weisbach (2003) the number of small directors is more effective than a large number of directors because it reduces agency costs and members can play a more free role in the organization. However, if the number of councils is too large it will cause problems of coordination and communication and a high salary burden. The board of commissioners plays an important role in the implementation of the company's operational activities and reduces agency problems between managers and shareholders. Referring to the preliminary statement above, Yatim (2011), said that one of the signals of supervision and quality of good performance in a company is indicated by the mechanism of the board of directors and the board of commissioners protecting the ownership structure through the proportion of ownership.

This mechanism is carried out as the implementation of corporate governance within the company. In previous studies, it was found that the composition and number of board of directors had a negative effect on the value of underpricing, (Yermack, 1996) and (Eisenberg et al, 1998). Then reinforced by the results of Sasongko and Juliarto (2014) and Purwanto et al (2015), it turns out that the greater the number of commissioners will have a negative influence on underpricing. Likewise, Darmadi and Gunawan (2013) said that there was a negative relationship between the board structure and the level of underpricing during the IPO.

Dalton et al (1999), said that one important factor in the implementation of effective corporate governance is the size of the board. Where the greater the number of commissioners in the company's board structure will increase effective supervision of the performance of the company's management. The large composition of the board of commissioners in the company is used as a signal for the quality of the company to the public, (Barroso-Castro et al, 2017). This can be shown by the increasing number of commissioners that show better corporate governance. The amount of the board of commissioners in a company will increase effective supervision of the company's performance Cirillo et al (2015),said that the involvement of managers can increase the IPO value of Issuer companies, this supports the opinion (Certo et al, 2003) that the existence of managers provides positive signal quality to investors about the quality of IPOs that affect the value of the IPO. Likewise, the more diverse the number of boards in an IPO company is the signal associated with the magnitude of the IPO Value (Zimmerman, 2008). Where the involvement of the board of directors at the time of determining the initial stock price has a positive effect on the value of the IPO company, (Mousa et al., 2014).

Hypothesis 5. The number of Boards at the time of the IPO process has a negative effect on the Premium IPO Value.

Hypothesis 6. The number of Boards at the time of the IPO process has a negative effect on underpricing

RESEARCH METHODS

Sample and data collection

In this study using a data panel that is a combination of time series data and cross-section 202 companies that conduct initial public offerings on the Indonesia stock exchange for the period 2010 to 2017. All data is collected manually from the IPO prospectus, which contains the bid price, closing price, structure of managerial ownership, ownership retention, board, listed companies. Data comes from Bloomberg, Yahoo Finance, Indonesian Capital Market Directory (ICMD), and IDX statistics as well as through relevant secondary publications that are indirectly obtained through online media in the form of records of company events or company historical reports. which are arranged in the company's archives listed on the Indonesian stock exchange.

Statistical and variable measurement

Based on time-series data and cross-section 202 companies that made the initial offering, this research used WarpPLS5.0 software to estimate the research model described by 3 (three expectoratory variables) and 2 control variables.
Specifically, this is a research model.

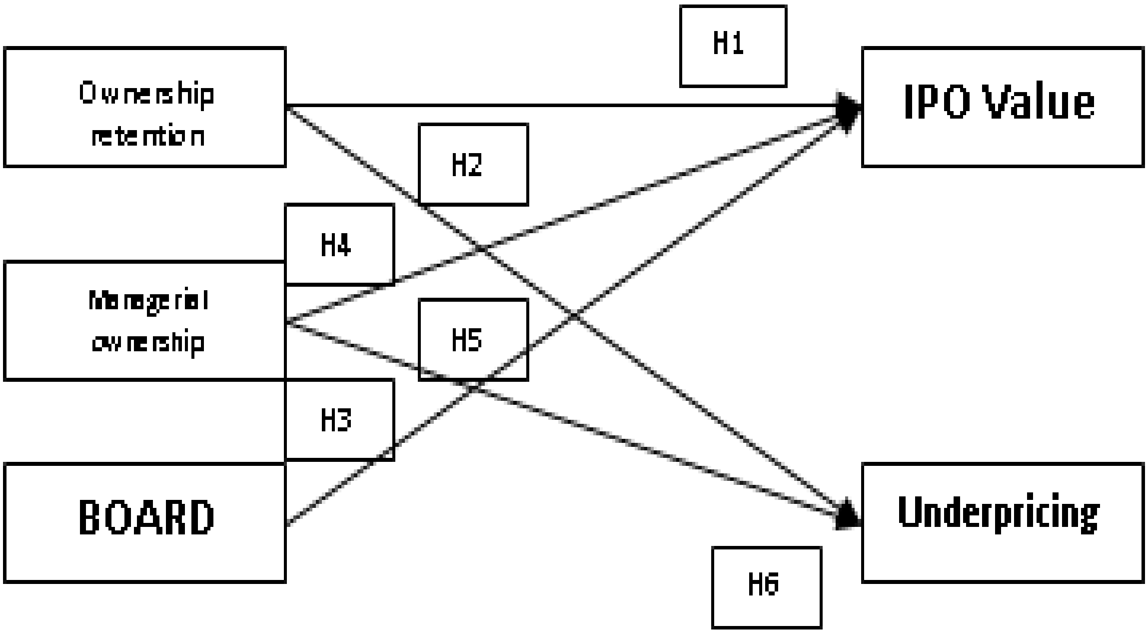

Figure 1. Summary of the Hypothesis

$$IPO\ value = \beta_0 + \beta_1(Ownership\ Retention) + \beta_2(Managerial\ Ownership) + \beta_3(board) + \delta_1(control\ variable)$$

$$IPO\ Underpricing = \beta_0 + \beta_1(Ownership\ Retention) + \beta_2(Managerial\ Ownership) + \beta_3(board) + \delta_1(control\ variable)$$

Dependent variable

Mousa, Marlin, and Ritchie (2013) use premium IPO as a proxy for measured of the IPO value. The premium IPO is used as a proxy with the reason that the IPO value is the offering price which is reduced by the book value and then divided by offering price. Where the book value is the initial book value of the share price announced through the prospectus. The formulation of the value of the IPO (Premium IPO) is also used by Certo et al. (2003), (Chahine & Goergen, 2013) (Mousa et al., 2013) dan (Cirillo et al., 2015).

$$IPO\ Premium = \frac{Offering\ Price - Book\ value}{Offering\ Price}$$

Whereas Darmadi and Gunawan (2013) calculated underpricing with the stock price formulation closing the first day of trading on the secondary market minus the sales price and then divided the sales price. Based on previous research on underpricing, for this research follows, (Darmadi & Gunawan, 2013) and (Samarakoon, 2010), with the formulation as below;

$$UP = \frac{P_{il} - P_{i0}}{P_{i0}}$$

Independent variable

Referring to the previous research, Djerbi and Anis (2015) measured ownership retention as the proportion of shares held by an insider (management and director) after the IPO. While in the study Fan (2007), the measurement of the number of shares held (ownership retention/alpha (α) is the total number of shares held by the old ownership before the offerings period, minus the number of shares in the offerings period then divided by the total number of shares after the offerings period as done, (Downes, and Heinkel, 1982; Feltham, et al., (1991),(Fan, 2007) Furthermore, it can be explained by the following formula (Li et al., 2005) and (Yong Wang & Zhang., 2015).

$$\frac{\text{total number of shares held by the old ownership (pre} - \text{IPO)}}{\text{total number of shares (post} - \text{IPO)}}$$

Managerial ownership in this study was measured by the percentage of managerial ownership in IPO companies, (Deb, 2014) (Sasongko & Juliarto, 2014) and (Filatotchev & Bishop, 2002), (Elston & Yang, 2010) as well (Elston & Yang, 2010).In this case, the measurement of the board of this study follows Darmadi and Gunawan (2013) namely the Board size is the Natural Logarithm of the Board

Control Variable

Company size can be in the form of human resources, the total number of boards, and the total assets of the company. Through total assets, the company can give a signal that companies that have large assets will have good prospects. Total assets or also called assets are economic resources owned by the company and still provide benefits in the future. According to Leone, Rock, and Willenborg (2007), the size of the company (Ln Total assets) has a negative influence on the value of underpricing. Furtermore, Mnif. (2010), that the size of the company at the time of the IPO was negatively related to underpricing. In contrast, in the research, Ahmed S. Alanazi et al. (2011) found that the size of the company had a positive influence on the company's performance but was not significant. Then by Zhou and Lao (2012) using the firm size in Ln total assets has a positive effect on underpricing. Based on previous research on company size, this dissertation research follows, (Zhou & Lao, 2012), (Ahmed S. Alanazi et al., 2011) (Mnif. 2010), which uses Ln total assets for Company Size.

RESULT AND DISCUSSION

Table 2. Operationalization of Research Variables

Variable	Operationalization
Dependent variable	
IPO Premium	Offering price on the first trading day on the primary market minus book value of share divided by Offering price
Underpricing	Closing price on the first trading day on the secondary market minus offer price divided by the offer price
Share ownership	
Ownership retention	
Managerial Ownership	The Proportion of common shares held by the managerial team
Board Size	Number of people serving on the board’s commissioners and Directors
Firm Size	Logarithms natural Total asset of firms IPO

Table 3. Description of Statistical

Variable	Number of observation	Mean	Max	Min	SD
IPO Premium	202	0.43	0.89	0.57	0.34
Underpricing	133	0.33	0.87	0.034	0.25
Ownership retention	202	0.56	0.92	0.30	0.35
Managerial Ownership	201	0.66	0.96	0.23	0.31
Board Size	202	8	28	4	3

Based on the table above it can be seen that the Managerial Ownership Variable in the company during the period after listing in 2008-2017 on average was 0.96, which means 66%, the average for all companies in this study sample was Managerial Ownership. This will mean that management has a shareholding in the company for decision making. The standard deviation of 0.56 in the variable (OM) managerial ownership shows that there is an ownership bias of 56% or the presence of other dominant ownership in the company. A minimum value of 0.23 means that there is still a managerial party that has shares at the company. This is due to the characteristics of companies that are not public but state ownership. The maximum value is 96% indicating that there is managerial ownership in the company that makes the first listing on the capital market.

In the variable OR (ownership retention) an average owner is holding for up to 0.56 or 56% of the shareholding when the company is listing in the Indonesian capital market. It is also known that the standard deviation value is 0.1274, which means that 12.74% of shares occur in the bias that is not owned by the old owner of the average overall shares outstanding when the company makes a listing. The minimum value of shares held is 0.30 or 30% and a maximum of 0.92 or 92% which is the highest percentage of the old owner retains its shares when the company makes initial public offerings.

Based on the table above it can also be seen that the boards in the company during the period after listing in 2008-2017 on average were 8 people in one company with a standard deviation of 3 on the variable boards. The minimum value of 4 which means some companies employ 4 people as a board. The maximum value is 28 indicating that there are companies that employ up to 28 board members in companies that do the initial listing on the capital market.

Correlation Analysis

Table 4. Correlation

Correlation	1	2	3	5	5	6
IPREM	1					
UP	0.314***	1				
OR	0.227***	0.133***	1			
OM	0.169***	0,135***	0.178**	1		
LBOARDS	0.253**	0.060**	0.165***	0.227***	1	
LSIZE	0.179***	0.040***	0.162***	0.169***	0.169***	1
P. value	Notes: significance at :*10,**5, and ***1 Percent levels					

In table 4, it can be seen that the ownership retention variable is positively correlated with the variable IPO, Underpricing with a correlation coefficient of 0.227 ***, and 0.133 *** then Managerial Ownership (OM) is positively correlated with the Variable IPO Value, Underpricing with a correlation coefficient of 0.169 *** and 0.135 ***. The measurement of variable Boards is positively correlated with the variables of IPO Value, and Underpricing with a correlation coefficient of 0.253 ** and 0.060 **

Result of Warp PLS 5.0 Analysis

Table 5. The Goodness of Fit of the Structural Model

Criteria	Parameter
Average path coeffisient (APC)	**0.266****
Average R Squared (ARS)	**0.287****
Average adjusted R Squared (AARS)	**0.252****
Average block VIF (AVIF)	**1.099**
Average Full Collinearity VIF (AFVIF)	**1.175**
Tenenhaus GoF (GoF)	**0.432**
Sympson’s paradox ratio (SPR)	**0.889**
R squared contribution ratio (RSCR)	**0.983**
Statistical suppression ratio (SSR)	**0.836**

*Notes: significance at :*10,**5, and ***1 percent levels of confident*

By looking at the test results of the goodness of fit model in the table above it can be explained that in this research model has a good and acceptable fit/fit where the P-Value APC, ARS <0.005. Whereas in testing the multicollinearity problem between exogenous variables, the AVIF value is 1,099 and the AFVIF value is 1,175 which 30 3.30 in this case, means that there is no multicollinearity among exogenous variables. Furthermore, for the predictive strength of the Tenenhaus GoF (GoF) model, it produces a value of 0.432 (≥ 0.36) which means that the predictive power of this model is very strong and acceptable.

In measuring the causality problem in the research model with Sympson's paradox ratio (SPR), producing a value of 0.889 (≥ 0.7) is still acceptable because the ideal value is 1. Then to find out that the research model is free from the contribution of negative R squared can be seen from the R-value squared contribution ratio (RSCR) which yields a value of 0.983 where ≥ 0.9 with the ideal value is 1.

The next test is the problem of statistical suppression where a path coefficient has a large value when compared to the correlation path that connects two variables. Testing of statistical suppression impacts resulted in a Statistical suppression ratio (SSR) value of 0.836 which was ≥ 0.7. in this case the model is free from the statistical suppression effect problem (Latan and Ghozali 2016). Seeing the results of the testing of goodness of fit this research model has good suitability. These results indicate that the results of the suitability evaluation of this model are in accordance with the support of available observation data.

Table 6. A Result of Structural Model Evaluation

Description path	Path Coefficient	Adj.R^2	Q2	Effect size
OR→ IPREM	**0.218*****	0.167	0.196	0.253
OM→ IPREM	**0.165*****			0.231
LBOARDS→IPR	**-0.089****			0.198
EM	**0.231***			0.765
LSIZE→IPREM	**0.145*****	0.261	0.290	0.289
OR→ UP	**0.121*****			0.180
OM→ UP	**-0.155****			0.167
LBOARDS→UP	**0.177****			0.130
LSIZE→UP				

*Notes: significant at :*10,**5, and ***1 percent levels of confident*

Based on the picture and table 6 shows the path coefficients and p values for each direct effect between variables that have a positive effect. The relationship between Ownership retention variables to Premium and Underpricing IPO values is 0.218 *** and 0.145 ***. This result supports Leland and Pyle (1977) and (Darmadi & Gunawan, 2013) statement, that the ownership of the old owner gives an impression of the quality and prospects of the company in the future. Managerial Ownership (OM) of IPO Value and Underpricing (UP) shows coefficient value, 0.165 *** and 0.145 ***, These results confirm the research Chahine and Goergen (2013) and Mousa et al. (2014) that there is a dual managerial role as Owner will increase Underpricing. while the Board Number has a significant negative coefficient on IPO Value and Underpricing. This confirms the study, Darmadi and Gunawan (2013) that the number of boards in the company does not affect the performance of its shares. This is due to the addition of board members, by investors considered symbolic and not effective in decision making.

To see the variations that affect the Premium IPO value can be seen in the adjusted R squared value of 0.167 which means that the influence of variations in Ownership retention (OR) managerial ownership (OM), and Boards, Company size (LSIZE) on premium IPO value is The remaining 16.7% 83.3% is explained by other variables not included in this research model. If you see the rule of thumb for structural model evaluation in this study it can be categorized as weak, where the adjusted R squared value is 0.167 less than (≤ 0.25 weak category).

Adjusted R squared values for variations in the effect of retention Ownership (OR) Managerial Ownership (OM), boards, and Company size (LSIZE) on underpricing (UP) of 0.261 or 26.1%, the remaining 73.9% are explained by other variables not included in the model this research. If you see the rule of thumb for structural model evaluation in this study it can be categorized as moderate, where the adjusted R squared value of 0.261 is greater than (> 0.25 moderate category).

As a reference for testing whether the Premium IPO Value variable has predictive relevance, it can be seen in the table above that the Q squared value is 0.196 (> 0), which means the model has predictive relevance which, if you see the rule of thumb, structural model evaluation resulting from premium IPO Value variables including in the moderate category where (Q2 ≥ 0.15). While the Q squared value generated underpricing variable (UP) is equal to (0.290> 0), which means the model has predictive relevance. If you look at the rule of thumb, the structural model evaluation resulting from underpricing (UP) variables is in the moderate category where (Q2 ≥ 0.15).

The effect size value is required that the independent variable has a very weak, weak, moderate or strong influence on the practical point of view even though it has a significant p-value. It can be seen that the effect size of Ownership retention on the Premium IPO Value of 0.25 means having an effect size in the medium or moderate category from a practical point of view. It can be seen that for the effect size the Managerial Ownership (OM) of underpricing (UP) is 0.060 (<0.15), which means having an effect size in a small category or a practical point of view. Furthermore, the influence of board variables on Underpricing (UP) results in an effect size value of 0.167 (<0.15) indicating that there is no effect size. This means that the influence of the board on Underpricing (UP) is very weak from a practical point of view (practical point of view even though it has a significant p-value value. The effect size value influences the Company Size variable or total assets (LSIZE) against underpricing (UP) 0.130 (<0.15) gives a variable meaning it has a weak or small effect size category from a practical point of view even though it has a significant p-value.

CONCLUSION

This study utilizes ownership retention, managerial ownership, and Boards variables that affect the value of premium IPOs in listing companies in the Indonesian capital market. the more ownership retention increases will increase the value of the company along with the increase in stock prices at the close of the first trading day. The dual role of the management has the effect of increasing the level of Premium and Underpricing IPO values. Ownership retention makes investors place perceptions of the commitment and quality of IPO companies. This appreciation can be seen from the increase in the stock price from its expectations.

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BRAND IMAGE AS A MEDIATION OF ELECTRONIC WORD OF MOUTH ON PURCHASING INTENTION OF LANEIGE

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ABSTRACT

The purpose of the study was to know and analyze the role of brand image as a mediator of the impact of the Electronic Word of Mouth on purchasing intention of Laneige's product. A sample of 100 respondents used a purposive sampling technique. The type of test used to analyze the data was the validity and reliability test. The data analysis technique used is path analysis. The results of the Electronic Word of Mouth study have a significant and positive effect on brand image and purchasing intention. The Brand image also has a significant and positive impact on purchasing intention and directly has a role as a mediator on the impact of Electronic Word of Mouth on purchasing intention of Laneige's Product.

Keywords: Electronic Word of Mouth; Brand Image; Purchasing Intention

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INTRODUCTION

As the development of information and communication technology is increasingly qualified, Korean Wave (K-Wave) or known as Hallyu, began to enter various countries around the world (Kuwara, 2014). The Korean wave is a term given to the spread of the Korean wave globally in various countries, including Indonesia, judging from the above understanding, the Korean Wave can be categorized as a phenomenon. Some of them even made K-Wave or Hallyu the center of fashion and beauty, which was considered as a trend.

Korean trend or Hallyu adorns digital media so much that Korean things are attractive for consumption. One of them has clean and flawless skin like artists in South Korea become everyone's dream. That is the reason why beauty or skincare products from South Korea are booming among teenagers and adults. Therefore, in this decade, Korean beauty (K-beauty) has taken over the global beauty industry with a wide variety of products, attractive packaging, and natural product composition.

Starting from Korean Pop (K-Pop) to the present K-beauty, Korea has mastered global appeal. By targeting the millennium segment, which is currently pleased with something compelling, comfortable, and practical, K-beauty is ready to launch various skincare variants that are considered suitable for Asian skin, including Indonesia. Research on beauty products being done on new products in South Korea than in other countries because there are so many competing brands, and they are trying to be the best.

However, this year the media discussed Japanese beauty (J-beauty), which was back to compete with K-beauty products. The media said that J-beauty has returned to overcome the current "trend" buzzy. In this case, Amorepacific Corporation, which is a beauty and cosmetic company in South Korea, suffered a loss of up to 76% in the fourth quarter of 2017 due to a decrease in product sales. In this case, beauty and cosmetic companies in South Korea experienced much decline in purchasing intention. Tight purchasing intention competition causes companies to have to think about a suitable strategy in dealing with competition.

The existence of intense sales competition causes companies to think about the right strategy in the face of competition. This competition consists of several forms, such as price cuts, variety and quality, packaging, design, market segmentation, and advertising/promotion (Marbun, 2003). This opinion is justified by Martins (2018), who said that the sales promotion of a product could increase consumer purchasing intention.

In line with the development of existing technology, marketing has now been done with internet technology or so-called digital marketing. Digital marketing is assisted by digital influencers as third parties to provide a review of a product online. Prospective customers can look for reviews on several platforms on social media online before buying a product. Online consumer review (OCR) or can be referred to as Electronic Word of Mouth, is one feature that has attracted much attention from academics and the public as one of the most influential factors in determining consumer purchasing interest (Hu et al., 2006).

Social media can also be used as an early-warning system or monitor trends in the market (Stelzner, 2016). Stelzner (2016) also conducted a survey that showed that 90% of marketers agreed that social media was an essential part of their business, and 68% of marketing analyzed the social media activities of their business. The survey is reinforced by the opinion of e-marketers, who explain that 61% of consumers are affected by blog reviews and sharing reviews on various social media platforms (Hatane & Liana, 2004).

Laneige products are one of Korea's skincare and cosmetic brands that intentionally or unintentionally carry out digital marketing through Electronic Word of Mouth on social media such as Youtube, Twitter, Femaledialy, and other platforms. The existence of reviews or reviews given by other consumers, for example in a sharing review on a platform or community, can influence other potential consumers on their purchasing intention (Jalilvand & Samiei, 2012) for example the reviews from consumers of cosmetics products "Laneige" on social media (Youtube, Twitter, Femaledialy, Instagram and other platforms).

In addition to "Laneige" cosmetic products, other cosmetic products that are widely given reviews on social media as a form of Electronic Word of Mouth are cosmetics products "Some by Mi." "Some by Mi" cosmetics attracts a lot of consumers' attention because of positive comments on social media that make the brand image of a product positive so that consumers' purchasing intention increases.

Jalilvand and Samiei (2012) argue that Electronic Word of Mouth is one of the practical factors that influence brand image and purchasing intention in the consumer market. This opinion was also proven by Semuel and Lianto (2014), which stated that Electronic Word of Mouth had a positive effect on brand image, brand trust, and purchasing intention. However, a different opinion was expressed by Reza M and Retno (2018), who said that Electronic Word of Mouth had no positive and significant influence on purchasing intention either through or not through brand image. However, Electronic Word of Mouth will have a positive and significant effect on purchasing intention if through brand trust as its medium.

Based on this background, the following problem formulations can be obtained: 1) Is there any influence between Electronic Word of Mouth and brand image on Laneige products? 2) Is there any influence between Electronic Word of Mouth on purchasing intention in Laneige products? 3) Is there any influence between brand image and purchasing intention in Laneige products?

LITERATURE REVIEW

Electronic Word of Mouth

Electronic Word of Mouth is a form of marketing communication that contains positive or negative statements made by potential customers, customers, or former customers or companies, which are willing for many people or institutions through the internet (Hennig-Thurau et al., 2004). Goldsmith (2008) defines Electronic Word of Mouth as any internet-based communication about the use or characteristics of a product. The expansion of the internet has given more access to consumer comments posted on the internet and allows consumers to offer advice regarding their consumption by involving Electronic Word of Mouth. The dimension of Electronic Word of Mouth: Intensity (frequency of accessing information from social media, frequency of interaction with social media users, and the reviews written by social media users), Valence of Opinion (positive or negative comments from social network users and recommendations from social networks), Content (information about variations of a product, information about leather, and information about prices offered).

Factors of Electronic Word of Mouth are platform assistance, venting negative feelings, concern for other consumers, extraversion or positive self-enhancement, social benefit, economic incentives, helping the company, advice seeking. Schiffman and Kanuk (2008) said, indicators of consumer’s purchasing intention 1) An interest in seeking more information about products consumers are aroused by the need to be driven to looking for more information , 2) consider buying, through information gathering, consumers learn about competing brands and heir strengths, 3) The desire to know the product, consumers have a desire to know products because they view the product has different abilities in providing benefits that are used to utilize wholeness, 4) interest in trying products, after the consumer has fulfilled the needs, studying the competing brands and the strengths of these brands, consumers will look for certain benefits from solutions and will evaluate these products, 5) the desire to have a product, consumers will pay great attention to attributes that provide the benefits they are looking for so that they will take stand (decisions preferences) towards the product through the evaluation of attributes and form an intention to buy or have a preferred product.

Purchasing Intention

Purchasing intention is a model of a person's preferences towards products, which is very suitable in measuring attitudes toward a specific class of products, services, or brands (Schiffman and Kanuk, 2008). Purchasing intention shows the possibility that consumers will plan or want to buy certain products or services in the future (Wu et al., 2011). According to Venkatesh and Davis (2000), purchasing intention is proven to be a valid predictor of actual behavior with the indicator of interest looking for more information about the product, considering buying, the desire to know the product of interest to try the product, the desire to have a product. Several factors that influence purchasing intention 1) Stimulation, is a condition intended to encourage or cause someone to act. 2) Awareness is something that enters the product, and service itself influences a person's thinking. 3) Search for information, can be divided into private information, sourced from consumers' memories to choose goods or services that satisfy them, external information, information originating from advertisements, through friends, or from mass media, ensuring the unique nature of each choice, at this stage the consumer collects information related to the characteristics of each choice, alternative selection, after information relating to the desired product has been obtained.

The consumer collecting information, namely: the nature of the product (color, size, and packaging) for example if a consumer buys clothes, then he will pay attention to materials, models, colors, and prices, the important factor of the product depends on the characteristics of products that are memorable and enter the minds of consumers, trust in the brand, is a tool that used by consumers to distinguish each brand with their respective characteristics. This trust is the result of the experience and perception of consumers, the function of product which consumers who expect satisfaction with the desired product, the product valuation process can be done by using specific assessment procedures to choose from the many alternatives. Place of purchasing is one of the considerations in stores where consumers will buy products or services. Finally, purchasing is the last stage where the consumer has made a choice and is ready to exchange money for the goods/services. Two factors also determine the consumer's decision, namely the attitude of others and unexpected situational factors.

Brand Image

Brand image is the way people think about a brand abstractly in their thinking, even when they think about it, they do not deal directly with the product (Kotler and Keller, 2012). A good brand image, to some extent, shapes how we decide to buy products or services from certain brands (He and Li, 2012). Underlining that brand image is seen by consumers' perceptions and beliefs that reflect relationships in consumers' memories (Afriani et al., 2019). With indicators: consumer perception of product introduction, consumer perception of product quality, consumer perception of size, consumer perception of durability, consumer perception of product color, consumer perception of price, consumer perception of location.

According to Shimp (2003: 592), there are three parts contained in measuring brand image, namely: 1) Attributes are the characteristics or various aspects of the brand being advertised. Attributes are divided into two things that are not related to the product (example: price, packaging, usage and image usage), and things related to the product (example: color, size, design). 2) Benefits, divided into three parts: Functional, i.e., benefits that seek to provide solutions to consumption problems or potential problems that can be experienced by consumers, symbolic, which is directed at the desires of consumers to improve themselves, valued as members of a group, affiliation, and a sense of belonging, experience, which is the consumer is a representation of their desire for products that can provide a sense of pleasure, diversity, and cognitive stimulation. 3) Overall Evaluation, is a subjective value or importance which the customer adds to the consumption result.

Brand image has benefits for the company, as stated in Rangkuti (2004: 17): 1) Brand image is made as a goal in the company's strategy. 2) Brand image can be used as a basis for competing with other brands of similar products. 3) Brand image can also help renew sales of a product. 4) Brand image can be used to evaluate the quality effects of marketing strategies. 5) Brand image can be generated from other factors outside the company's strategic efforts.

According to Kotler and Keller (2012: 261) some indicators influence brand image, namely: 1) Consumer perception of product introduction, 2) Consumer perception of product quality, 3) Consumer perception of size, 4) Consumer perception of endurance, 5) Consumer perception of the color of the product, 6) Consumer perception of prices, 7) Consumer perception of the location. The dimension of brand image (Keller, 2013): 1) Brand Identity is a physical identity associated with a brand or product so that it is easy to consider and adapt to other brands or products, such as logos, colors, packaging, location, corporate identity, slogans and other, 2) Brand Personality is a typical character a brand that forms a certain personality, makes it easy for customers to distinguish from other brands in the same category, 3) Brand Asociation is always specific meeting a brand, as a unique product offering. Examples include sponsorship or social responsibility activities, very strong issues, certain symbols, and meanings attached to brands, 4) Brand Attitude and Behavior are attitude or special offers and added value offered. Attitudes and behavior, activities and attributes attached to the brand when dealing with customers, including employee relations and brand owners, 5) Brand Benefit and Competence are values and the advantages offered by a brand for customers who make customers can feel the benefits, desires, dreams, and obsessions manifested by what is offered.

Factors of Brand Image (Schiffman and Kanuk, 2008): 1) Quality related to the quality of the product goods or services offered by producers with certain brands can be trusted or relied on, related to opinion or agreements formed by the public about a product consumed, 2) Service, relating to the duties of producers in serving, 3) Risk, related to the magnitude of the consequences or benefits and losses that may be experienced consumption, 4) Price, related to the high or low the amount of money spent by consumers affect a product, also affects the long-term image.

Electronic Word of Mouth and Brand Image

Semuel and Liana (2004) state that Electronic Word of Mouth has a significant effect on brand image. Electronic Word of Mouth as one of the marketing tools in order to convince consumers and immediately be clear and understand about a product. Previous research was also conducted by Jalilvand and Samiei (2012), state that Electronic Word of Mouth was one of the most effective factors to influence the brand image. Kala and Chaubey (2018) state that there was a significant and positive influence of Electronic Word of Mouth and brand image so that the emphasis on Electronic Word of Mouth would maximize brand image. In 2019, Arif conducted a study on Citilink customers with results that support previous studies that Electronic Word of Mouth significantly and positively influences brand image. Electronic Word of Mouth can create a brand image for a company and build trust among buyers (Rahman, 2020)

H_1: Electronic Word of Mouth has a significant positive effect on Brand Image

Electronic Word of Mouth and Purchasing Intention

Research conducted by Jalilvand and Samiei (2012) on the observation of virtual communities on Facebook as a place for consumers to share experiences about the products and services provided. The result is Jalilvand and Samiei (2012) say that positive electronic word of mouth has a vital function to increase purchasing intention by creating an image that benefits the company and the brand itself. Litvin et al. (2008) research results show that Electronic Word of Mouth based on facts and quantity about products can have a positive impact on purchasing intention. According to Alharbi et al. (2019), Electronic Word of Mouth has a vital role in helping companies understand consumer's demands and purchasing intention in their various products because Electronic Word of Mouth has a significant and positive influence on purchasing intention.

H_2: Electronic Word of Mouth has a significant positive effect on Purchasing Intention

Brand Image and Purchasing Intention

According to Jalilvand and Samiei (2012), there is a positive influence of brand image on purchasing intention. Empirical evidence indicates that Brand Equity influences consumer purchasing intention in a variety of contexts (Chang & Liu, 2009). Wang and Yang (2010: 177) say that the influence of brand credibility on purchasing intention makes brand awareness and brand image a moderating variable, with the results of the brand image having a positive effect on purchasing intention. However, a different opinion was expressed by Reza M and Retno (2018), who stated that brand image had no positive and significant effect on product purchasing intention.

H_3: Brand Image has a significant positive effect on Purchasing Intention

Electronic Word of Mouth and Purchasing Intention on Brand Image

Jalilvand and Samiei (2012) state that brand image has a direct influence on purchasing intention and also the indirect effect of Electronic Word of Mouth on purchasing intention itself. Wang and Yang (2010: 177) state that the influence of brand credibility on purchasing intention makes brand awareness and brand image a moderating variable, with the results of the brand image having a positive effect on purchasing intention. An empirical study was also conducted by Samuel and Lianto (2014: 53), which showed that there was a significant relationship between Electronic Word of Mouth and purchasing intention. However, a different opinion was expressed by Reza M and Retno (2018), who stated that Electronic Word of Mouth had no positive and significant effect on purchasing intention through brand image.

H_4: Electronic Word of Mouth has a significant positive effect on Purchasing Intention with Brand Image as an intervening variable

RESEARCH METHODS

This research was conducted in Sleman Regency. The population used is the entire community in Sleman Regency, who have an interest in buying Laniege products through social media (Youtube, Twitter, Femaledaily, and other platforms). The sample of this research is some people in Sleman Regency who have an interest in buying Laniege products after accessing social media (Youtube, Twitter, Femaledialy, and other platforms). In determining the sample size in this study is based on several statisticians who suggest that if the population number unknown, then the sample size used in this study is at least 100 respondents (Sigit, 1999). The sampling technique uses a purposive sampling technique, namely the determination of respondents from specific criteria. Respondent criteria included 100 respondents who were part of the community in Sleman Regency who knew and had an interest in buying Laniege products because they accessed social media (Youtube, Twitter, Femaledialy, and other platforms).

The study discusses the influence of brand image as a mediation of Electronic Word of Mouth on purchasing intention in "Laneige" products relating to concepts or theories into marketing. This research starts with a theory and a hypothesis, which then raises a problem or assumption. Therefore, the approach used in research is quantitative. The data used are primary data obtained through questionnaires distributed by researchers. The data analysis technique used in this study is path analysis. Path analysis aims to identify the pathway that causes a particular variable to other variables that influence it (Sarwono, 2012). The t-test shows how far the influence of one independent variable individually / partially in explaining the variation of the dependent variable (Ghozali, 2018). The results of the t-test SPSS output can be seen in the coefficients table in the Sig. (significance). In the table, it can be explained that: if the significant value of $t \leq 0.05$, it can be said that the independent variable has a partial effect on the dependent variable, if the significant value of $t > 0.05$, it can be said that the independent variable partially does not affect the dependent variable.

Intervening hypothesis testing on path analysis can be done using the Sobel test. The Sobel test was conducted to determine the effect of intervening variables, namely, brand image. The Sobel test is done by testing the strength of the indirect effect of independent variables on the dependent variable through intervening variables (mediation).

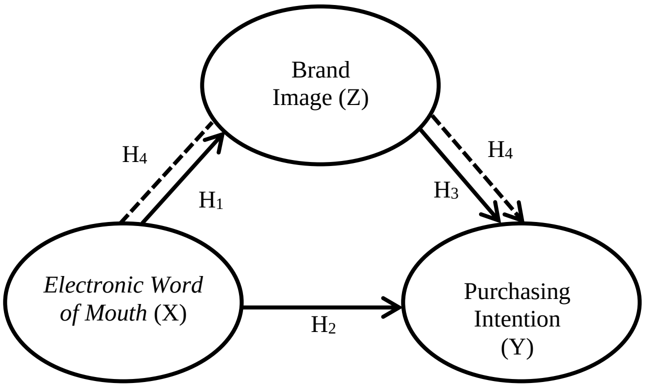

Figure 1. Path Analysis Conseptual
Source: Jalilvand & Samiei, 2012

RESULT AND DISCUSSION

Respondent Description and Analysis

Characteristics of respondents in this study are presented in the following table:

Table 1. Respondent Characteristics

Characteristics	Inf	Total	Percentage
Age	< 20 years	12	12%
	20 years	21	21%
	21 years	50	50%
	22 years	13	13%
	≥23 years	4	4%
Total		100	100%
Profession	Students	86	86%
	Employee	6	6%
	Entrepreneur	5	5%
	Other	3	3%
Total		100	100%
Income	< Rp. 1.5 million	73	73%
	>Rp. 1.5 million – Rp. 3 million	21	21%
	>Rp. 3 million – Rp. 4.5 million	2	2%
	> Rp. 4.500.001	4	4%
Total		100	100%

Based on table 1, it can be seen that the majority of respondents are 21 years old namely as many as 50 people (50%), respondents aged less than 20 years are 12 people (12%), 22 years old are 13 people (13%), and ages are over 23 4 years (4%).

The majority of respondents were known to be 86 students (86%). Other respondents who have jobs as Employees are six people (6%), Entrepreneurs are five people (5%), and other jobs are three people (3%).

The majority of respondents' income is less than Rp. 1,500,000 as many as 73 people (73%). Other respondents who have an income of between Rp. 1,500,001 - Rp. 3,000,000 as many as 21 people (21%), between Rp. 3,000,001 - Rp. 4,500,000 as many as two people (2%), and respondents who have an income of more than Rp. 4,500,001 as many as 4 people (4%).

Validity and Reliability Test Results

The validity test aims to measure the validity instrument is used to obtain data in a study. The minimum requirement for a valid instrument is its validity index value of ≥0.3. In this study, what will be tested is the validity of the Electronic Word of Mouth variable as an instrument variable X and Purchasing Intention as an instrument variable Y and Brand Image as an instrument variable Z. Based on Table 2, it can be seen that all statements have a correlation coefficient with $t_{value} > t_{table}$.

Table 2. Validity Test Results

Item	R value	R table	Sig.	Inf.
X.1	0,717	0,361	0,000	Valid
X.2	0,634	0,361	0,000	Valid
X.3	0,819	0,361	0,000	Valid
X.4	0,752	0,361	0,000	Valid
X.5	0,886	0,361	0,000	Valid
X.6	0,595	0,361	0,001	Valid
X.7	0,710	0,361	0,000	Valid
X.8	0,665	0,361	0,000	Valid
Y.1	0,859	0,361	0,000	Valid
Y.2	0,931	0,361	0,000	Valid
Y.3	0,802	0,361	0,000	Valid
Y.4	0,825	0,361	0,000	Valid
Y.5	0,873	0,361	0,000	Valid
Z.1	0,587	0,361	0,000	Valid
Z.2	0,787	0,361	0,000	Valid
Z.3	0,687	0,361	0,000	Valid
Z.4	0,740	0,361	0,000	Valid
Z.5	0,603	0,361	0,000	Valid
Z.6	0,494	0,361	0,006	Valid
Z.7	0,723	0,361	0,000	Valid

Source: Processed Primary Data, 2019

The reliability test is done to check whether the instrument used is reliable or not. The purpose of reliable is if the instrument is tested repeatedly, then the results will be the same. Reliability testing with Cronbach's Alpha can be seen from the Alpha value; if Alpha > r_{table} is 0.6, then it can be said to be reliable. Reliability testing with Cronbach's Alpha can be seen from the Alpha value, and if Alpha > r_{table} is 0.6, then it can be said to be reliable. Based on Table 3 it can be seen that all variables meet the instrument reliability requirements and can be declared reliable.

Table 3. Reliability Test Results

Variable	*CA*	Requiment Min *CA*	Ket
Electronic Word of Mouth (X)	0,860	0,600	Reliabel
Purchasing Intention (Y)	0,908	0,600	Reliabel
Brand Image (Z)	0,770	0,600	Reliabel

The Results of Linear Regression Analysis

Table 4 shows R Square of 0.318, which is 32% of brand image can be explained by variations of Electronic Word of Mouth while the remaining 68% is explained by other variables.

Electronic Word of Mouth variable has t_{value} of 6,766 with t_{table} of 1,660 and a significant value of 0,000, which shows Electronic Word of Mouth has a significant and positive effect on purchasing intention and $t_{value} > t_{table}$ which means that Electronic Word of Mouth has a significant positive effect.

From the results of research and discussion that have been done, it can be concluded if Electronic Word of Mouth has a significant positive effect on brand image and purchasing intention. If Electronic Word of Mouth is conducted by a company, it will create a good brand image in the minds of the public, a positive Electronic Word of Mouth will also have an impact on increasing consumer purchasing intention. A good brand image has a significant positive effect on purchasing intention, which can be interpreted if the brand image of a product is good; it will increase consumer purchasing intention. From the results of the research, it can also be concluded that the Electronic Word of Mouth has a significant positive effect on purchasing intention with the brand image as its medium. If the Electronic Word of Mouth about a product is positive and done occasionally, it will create a good brand image so that the impact is increasing consumer purchasing intention.

Table 4. The Results of Linear Regression Analysis

Variable	Reg Coeficient		t	Sig
	B	Std. Error		
Constant	12.830	2.027	6.331	0.000
X	0.446	0.066	6.766	0.000
R Square		0.318		

Electronic Word of Mouth can be used as a strategy to improve a brand image if there are many positive consumer reviews about a product as performed by Indonesia "Laneige" cosmetics products in collaboration with several digital influencers in the field of beauty, which are familiarly known as beauty influencers or beauty bloggers. Beauty Influencer or beauty blogger is asked to try and review cosmetic products "Laneige" in their social media accounts; the activity is called endorse. Endorse on beauty influencers or beauty bloggers is considered capable of convincing consumers and enhancing the brand image of "Laneige" cosmetics products. In this case, the company can influence consumers with an approach in the form of Electronic Word of Mouth to create a good brand in the minds of consumers.

Based on the discussion, the advice given to companies to pay attention to Electronic Word of Mouth is done on social media. Companies can also work with various influencers

who are experts in the world of beauty or called beauty influencers or beauty bloggers to provide product reviews on social media, especially to beauty influencers or beauty bloggers who are judged in terms of expertise, attractiveness, and quality of promotions as well as reliable reviews so that consumers can have consideration for buying a product. The Laneige product's positive reviews through Electronic Word of Mouth will form a good brand image in the minds of consumers, thus causing high purchasing intention towards Laneige products.
H_1: Electronic Word of Mouth has significant positive effects.

The Results of Multiple Linear Regression Analysis

Multiple linear regression is used to analyze the effect of Electronic Word of Mouth and interest in buying "Laneige" products. The level of confidence used in this analysis is α = 5%. The results of the multiple regression analysis are shown in Table 5.

Table 5. The Results of Multiple Linear Regression Analysis

Variable	Reg Coeficient		t	Sig
	B	Std. Eror		
Constant	0.180	2.419	0.074	0.941
X	0.411	0.080	5.118	0.000
Z	0.274	0.102	2.702	0.008
R Square		0.426		

Table 5 the coefficient of determination shown by R Square of 0.426, which is 43% of purchasing intention can be explained by variations of Electronic Word of Mouth and brand image. In contrast, the remaining 57% is explained by other variables.

Based on Table 5, it can be seen that the Electronic Word of Mouth variable has t_{value} 5.118 with t_{table} 1.660 and significant value of 0.000. The significance value of 0,000 < 0.05 and t_{value} (5,118) > t_{table} (1,660) which shows that Electronic Word of Mouth has a significant and positive effect on purchasing intention.

It can be concluded that if Electronic Word of Mouth successfully affects consumers; the purchasing intention in the product will be even higher. This is indicated if cosmetics products "Laneige" do a lot of Electronic Word of Mouth on social media, then consumers will be interested and look for more information about the product. Information received by consumers can be a consideration for buying cosmetic products "Laneige". Electronic Word of Mouth is conducted in the form of reviews from beauty influencers or beauty bloggers who are honest reviews given after using the cosmetic product "Laneige". The potential consumers would have an interest in buying products and put their trust in the product because beauty influencers or beauty bloggers are considered to have experience of beauty products. Therefore, Electronic Word of Mouth is crucial because it can influence consumer purchasing intention.
H_2: Electronic Word of Mouth has a significant positive effect on accepted purchasing interest.

The brand image variable has a t_{value} 2.702 with a t_{table} 1.660 and significance value of 0.008. Significance value 0.008 < 0.05 and t_{value} (2.702) > t_{table} (1.660) which shows that brand image has a significant and positive influence on purchasing intention. This shows that the brand image has a significant positive effect on purchasing intention received.

It can be interpreted that the better the brand image, the higher the consumer purchasing intention. Companies can create positive perceptions from consumers about products in the form of good quality, attractive packaging, and affordable prices. As done by "Laneige", to enhance their brand image, they offer elegant packaging on their products. "Laneige" provides travel size measurements on skincare products, making it easier for consumers when traveling. There are also sample sizes on some of his products, so consumers can consider buying a full size of "Laneige" cosmetic products to avoid dissonance after purchasing a product. "Laneige" already has a good brand image because it is understood to understand the needs of consumers by providing various sizes of its products. A good brand image on Laneige will increase consumer purchasing intention, they will feel the cosmetic product "Laneige" is worth to buy even though the price given is not cheap, but in accordance with the quality of the product.
H_3: Brand Image has a significant positive effect on Purchasing Interest received.

Intervening variable testing uses path analysis. Path analysis is used to determine the pattern of relationships between three or more of the variables. Path analysis in this study is used to determine whether the brand image can be a mediation between Electronic Word of Mouth of purchasing intention.

Based on the results of the coefficient of determination of equation I Table 4 obtained R square value of 0.318, then the value is

$$e_1 = \sqrt{1 - R^2} \tag{1}$$
$$e_1 = \sqrt{0.682} = 0.825.$$

On Table 5, the R square value is 0.426, the value is

$$e_2 = \sqrt{1 - R^2} \tag{2}$$
$$e_2 = \sqrt{0.574} = 0.757.$$

Sobel Test is used to determine the significance of the indirect effect of Electronic Word of Mouth on purchasing intention.

P_1P_3 = (0.446) × (0.274) = 0.122204

The total influence of Electronic Word of Mouth on Purchasing Intention is

0.411 + 0.122 = 0.533.

$$SP_1P_3 = \sqrt{{P_3}^2{SP_1}^2 + {P_1}^2{SP_3}^2 + {SP_1}^2{SP_3}^2}.(3)$$
$$SP_1P_3 = 0.04931$$

We can calculate the t statistic the effects of mediation with the following formula:

$$t_{value} = \frac{P_1P_3}{SP_1P_3}..........(4)$$

$t_{value} = 2.4782$

The result of t-value is 2.478 and from the table with a significance level of 0.05 is 1.660; therefore, it can be known that $t_{value} > t_{table}$ is 2.478> 1.660. From these statements, it can be concluded that the medium coefficient is significant, which means there is a medium effect.

It can be seen that Electronic Word of Mouth has better effectiveness on purchasing intention if Laneige cosmetics products have a good brand image. Electronic Word of Mouth conducted by beauty influencers or beauty bloggers will be more convincing because consumers have understood and are familiar with Laneige cosmetics products. Consumers will be interested and have an interest in finding information about "Laneige" cosmetic products from various reviews given by beauty influencers or beauty bloggers. The availability of positive information obtained by consumers about a product will be a consideration for buying a product. Therefore, the more Electronic Word of Mouth will create a good brand image and increase purchasing intention in consumers.

H_4: Electronic Word of Mouth has a significant positive effect on Purchasing Intention with Brand Image as an acceptable intervening variable.

CONCLUSION

From the results of research and discussion that have been done, it can be concluded if Electronic Word of Mouth has a significant positive effect on brand image and purchasing intention. It happened if Electronic Word of Mouth conducted by a company will create a good brand image in the minds of the public, a positive Electronic Word of Mouth will also have an impact on increasing consumer purchasing intention. A good brand image has a significant positive effect on purchasing intention, which can be interpreted if the brand image of a product is good; it will increase consumer purchasing intention. From the results of the research conducted, it can also be concluded if the Electronic Word of Mouth has a significant positive effect on purchasing intention with the brand image as its medium. If the Electronic Word of Mouth has a positive impact and is done on several platforms, it will create a good brand image so that the impact is increasing consumer purchasing intention.

The results of this study can provide input to companies to pay attention to the Electronic Word of Mouth conducted on social media. Companies can also work with various influencers who are experts in the world of beauty or called beauty influencers or beauty bloggers to provide product reviews on social media, especially to beauty influencers or beauty bloggers who are judged in terms of their expertise, attractiveness, and quality of promotions as well as reliable reviews so that consumers can have consideration for buying a product. If a positive review or review of cosmetic products "Laneige" through Electronic Word of Mouth will form a good brand image in the minds of consumers, thus causing high purchasing intention in cosmetic products "Laneige".

It is expected that the results of this study can be a reference to increase knowledge in the field of marketing management. The results of this study indicate that brand image can act as a medium of the influence of Electronic Word of Mouth on purchasing intention. Future studies are suggested to add one or more other independent variables that can influence purchasing intention. The addition of independent variables can be useful to complete this study because it is considered that there are still other independent variables outside the research that can influence purchasing intention so that further research will provide more extensive knowledge.

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DO CAPITAL STRUCTURE, PROFITABILITY, AND FIRM SIZE AFFECT FIRM VALUE?

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ABSTRACT

The purpose of the research is to analyze whether there is an influence between capital structure, profitability, and firm size on firm value. The population used in this study is the LQ 45 company listed on the Indonesia Stock Exchange (IDX). A sampling of research using a purposive sampling method of determining the certain criteria with a total samples of 31 LQ 45 companies during 2014-2018. The research uses multiple linear regression to analyze the data. The results show that capital structure and profitability evaluate the value of the company. While the size of the company does not oppose the value of the company. The results of this research are expected to provide benefits for the parties, investors, and further researchers.

Keywords: Firm Value; Capital Structure; Profitability Firm Size

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INTRODUCTION

The current tight business competition requires companies to pay attention to their quality. These qualities describe the good or bad condition of the company. The main goal of the company is to increase the value of the company by increasing shareholder prosperity. Company managers, especially financial managers hold the responsibility of investing and funding decisions. In terms of funding, capital expenditures for company operations must be considered. Good management will support the operation, thereby increasing the value of the company in the eyes of investors (Ang, 2007).

Firm value is influenced by several factors, namely capital structure, profitability, and company size (Dewi & Wirajaya, 2013). Capital, funding, and investment are factors that bring great influence on the ongoing company. Therefore, company managers are more careful in making decisions related to the capital structure which is expected to increase the value of the company.

Permanent spending, which is indicated by the balance between own capital and long-term debt, the term of capital structure in the opinion of Riyanto (2010). The balance between the two things will affect the level of risk and the rate of return expected by the company. Through the right capital structure, the company's goal to increase the value of the company can be achieved.

Profitability is the ability of a company to get profits in a certain period or the result of some company management policies and decisions. One measure of profitability is Return On Assets (ROA) (Rahmawati, et al, 2007). According to Manopo & Arie (2016) the higher the profitability, the higher the value of the company, and vice versa. Companies that have high profitability will give a good signal to investors that companies with high profitability values have good prospects in the future.

Another factor that influences company value is firm size. The average company size of total net sales for the year in question for the next several years. In this case, the greater the sale, the company will benefit, if the sales decrease, the company will experience a loss. In this case, the size of the company may not be an influence on the firm value. It can be said whether or not the firm value based on profitability and capital structure (Sartono, 2010).

Companies listed on the Indonesia Stock Exchange (IDX) which are classified as LQ 45 are companies with an issuer index on the IDX with high liquidity (LiQuid). LQ 45 totals 45 issuers. The selection of 45 companies is based on several selection criteria that also consider market capitalization. The criteria that have been determined are not just any stock can enter LQ 45, the existing shares must have large capitalization and very high liquidity, so it is easy to trade. Many suggest alternative ways of trading shares in LQ 45 compared to other shares. The reason for choosing LQ 45 group companies is because LQ 45 is a leading stock group of 45 companies and is updated every six months.

Based on the background, this research contains the following problem formulations:

1) Does the capital structure affect firm value?
2) Does the profitability affect firm value?
3) Does the size of the company affect the firm value?

LITERATURE REVIEW

a. Signaling Theory

Signaling theory illustrates that a company can provide signals in the form of information to all stakeholders. The information can be in the form of all information that can be used by various parties to make decisions, for example, investors use that information for investment decisions. Signals can resemble promotions or other useful information to state that the company's condition is far better than the condition of other companies (Moniaga, 2013).

According to Jogiyanto (2014), when companies provide information, market participants will analyze the information as good news or bad news. According to Brigham and Houston (2011), in theory, a company's signal has an impulse to provide information in financial statements to external parties.

Signaling theory explains why companies have the urge to provide information to outsiders. This information is contained in the financial statements. The reason companies are compelled to provide information is because usually management and parties within the company know more information about the company's prospects than outsiders (Brigham and Houston, 2011). If investors get insufficient information about a company, they are less likely to be interested in investing, so it will not support the increase in the value of the company. Efforts that can be made by a company to increase its value in the eyes of investors are by reducing information asymmetry, namely by providing signals to outsiders. As a result, when the company's financial condition occurs and it is conveyed to investors, it can result in changes in company value. The company's financial management department should be able to produce good financial performance so that it can be a positive signal for outsiders.

b. Firm Value

The company's financial manager needs to determine the objectives to be achieved in making a financial decision. The firm value is the price that potential buyers are willing to pay if the company is sold. The higher the stock price, the higher the shareholder prosperity. The better the quality of the firm value, the investors or shareholders will be more interested in working together and investing their capital. Firm value can reflect the company's performance and level of success that can affect investor perceptions of the company. Furthermore, Kusumajaya (2011) states that the firm value is the market value of a company's equity plus the market value of the debt. Thus, the addition of the company's equity to company debt can reflect the firm value.

c. Capital Structure

Riyanto (2010) states that capital structure is a comparison between the amount of long-term debt with its capital. Capital structure will have an impact on the company. The use of own capital can affect the financial condition which will then affect the quality of the company's value. One measure used is the Debt to Equity Ratio (DER).

DER describes the ratio of total debt and total equity owned by a company, where this ratio is used to measure the level of use of the company's debt to its total equity. The DER formula is as follows:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total equity}} \times 100\%$$

d. Profitability

Profitability is the ability of a company to get profits in a certain period or the result of some company management policies and decisions. Based on the opinion of some experts, it can be concluded that profitability is a measure of the company's success in obtaining after-tax profits that are greater than their capital with a greater number of sales as well. The ability of capital invested in all company assets to generate profits can be shown by the measure of profitability, namely Return on Assets (ROA).

e. Firm Size

The size of the company is considered able to provide influence and insight into the company's progress. Because the larger the size or scale of the company, the easier it will be for companies to obtain funding sources both internal and external (Hargiansyah, 2015). The size of the company is seen from the total assets owned by the company that can be used for company operations. Companies that have large total assets, then the management will be easier to use the assets in the company.

Hyphothesis Development

a. The Effect of Capital Structure on Firm Value

Signaling theory shows the existence of information asymmetry between the company's management and those who have an interest in the information (investors and creditors). Capital structure also has a way to optimize the value of the company that aims in the company's funding policy to determine the capital structure (a mix between debt and equity). Every decision taken by company management tries to be conveyed to investors, one of which is the company's capital structure (Safrida, 2008)

If the company's debt increases, it is likely to go bankrupt and put a huge risk to the company. And if the use of debt is low, it will minimize the risk of the company. A company with a good capital structure can attract investors to invest. This will increase the company's stock price, thereby increasing the firm value.

H1: Capital structure affects the firm value

b. The Effect of Profitability on Firm Value

Profitability is the ability of a company to get profits in a certain period or the result of some company management policies and decisions. Based on the opinion of experts, it can be concluded that profitability is a measure of the company's success in obtaining after-tax profits that are greater than their capital with a greater number of sales as well. Management seeks so that the company can earn profits following the ability of the company itself. While investors want the company to provide capital as much as possible through the profits obtained. The profitability measure used is Return on Assets (ROA).

H2: Profitability affects the firm value

c. The Effect of Firm Size on Firm Value

Firm size is an important factor in determining a company's value. The size of the company is seen from the total assets, total net sales, the average level of sales, and the average total assets owned by the company that can be used for company operations. If the total assets the bigger the meal, the greater the capital that will be invested by the company. So it can be said that the size of the company is the size or size of the assets of wealth owned by a company. Investors will be more interested in investing in or cooperating with large companies compared to smaller companies.

H3: Firm size affects the firm value

RESEARCH METHODS

a. Population and Sample

The population in this study was all LQ 45 companies on the Stock Exchange. While the sample was obtained by a purposive sampling method with several criteria (Sugiyono, 2010), namely:

1. LQ 45 companies for the 2014-2018 period in a row
2. Companies that meet the variables needed in research

According to the criteria, there are some 31 companies that will be sampled in this study. The data used are quantitative data collected by the documentation method. The data used in this study are the annual financial statements of the company LQ 45 in 2014-2018. Data obtained through the website or the official website of the Indonesia Stock Exchange at www.idx.co.id.

b. Data Analysis Method

Multiple Linear Regression Analysis

The analytical method used is a multiple linear regression with the following equation (Ghozali, 2016):

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

$$\text{Firm Value} = a + \beta_1\ (\text{Capital structure}) + \beta_2(\text{Profitability}) + \beta_3(\text{Firm Size}) + e$$

RESULT AND DISCUSSION

Classic assumption test

Before testing the models and hypotheses, the linear regression test holds the classic assumption testing requirements. The classical assumption tests include tests for normality, multicollinearity, heteroscedasticity, and autocorrelation. In all four of these tests, the research data was stated to be able to meet the tests of normality, multicollinearity, heteroscedasticity, and autocorrelation. The following tables are the results of the classic assumption test:

Table 1. Normality Test

	Unstandardized Residual
Test Statistic	.071
Asymp. Sig. (2-tailed)	.066c

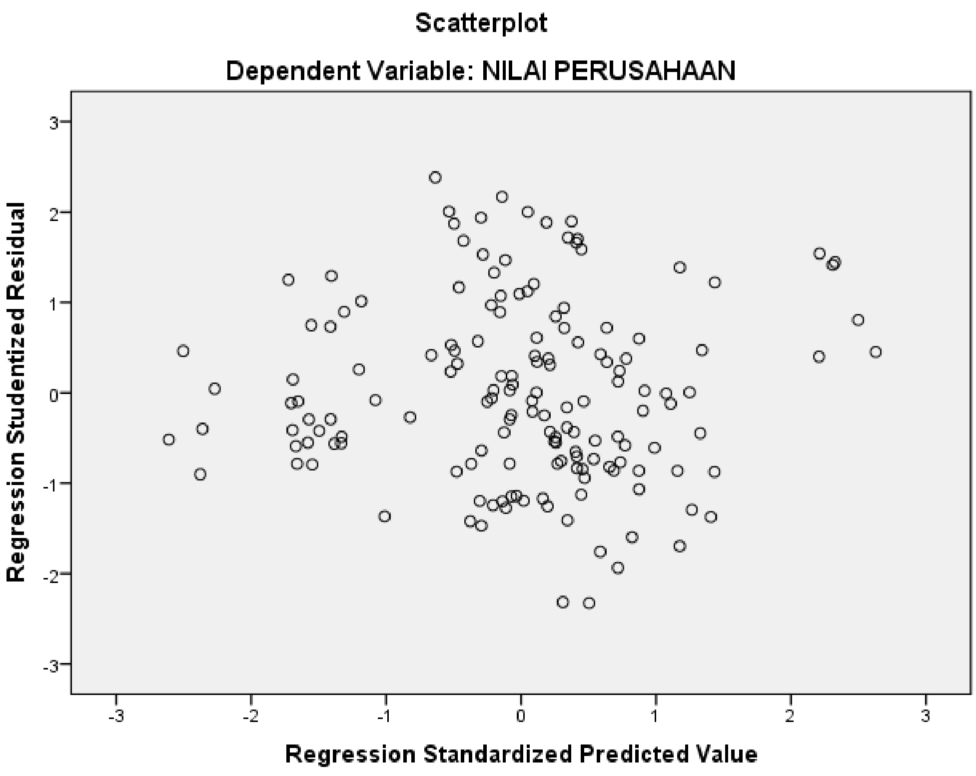

Figure 1. Uji Heteroskedastisitas

Table 2. Multicollinearity Test

Model		Collinearity Tolerance	Statistics VIF
1	(Constant)		
	CAPITAL STRUCTURE	.553	1.818
	PROFITABILITY	.724	1.387
	LnX3	.629	1.583

a. Dependent Variable: FIRM VALUE

Model test

Table 3. F-test

Model		F	Sig.
1	Regression	10.689	.000[b]
	Residual		
	Total		

a. Dependent Variable: FIRM VALUE
b. Predictors: (Constant), FIRM SIZE, PROFITABILITY, CAPITAL STRUCTURE

Based on table 3, this research has a good model. This can be seen from the significance value of less than 0.05. All independent variables, namely capital structure, profitability, and firm size affect the firm value.

This research uses a sample of 31 companies with the following analysis and discussion:

Table 4. T-test

Model		Unstandardized Coefficients B	Std. Error	t	Sig.
1	(Constant)	17.180	6.718	2.564	.012
	Capital Structure (X1)	-.510	.234	-2.194	.032
	Profitability (X2)	.199	.070	2.861	.006
	Firm Size (X3)	-.087	.390	-.223	.828

Based on Table 4 above can be explained as follows:

1. Effect of Capital Structure on Firm Value
   The capital structure variable has a value of t = -2,194 and a significance value of 0.032 (<0.05). Thus, it can be concluded that the capital structure influences the firm value variable.
2. Effect of Profitability on Firm Value
   The profitability variable has a value of t = 2.861 and a significance of 0.006 (<0.05). Thus the variable profitability affects the firm value.
3. Effect of Company Size on Firm Value
   The company size variable has a value of t = -0.223 and a significance of 0.828 (> 0.05). Thus the size of the company does not affect the firm value.

The regression equations obtained based on table 1 are as follows:

Y= 17,180 – 0,510(X1) + 0,199(X2) - 0,087(X3) + e

The results of the multiple linear regression equation can be interpreted as follows:
1. The constant value of 17,180 in the regression equation shows that if the value of the variable capital structure, profitability and firm size is constant, then the value of the company is 17.180.
2. The regression coefficient of the capital structure variable has a value of - 0.510, which means that if the capital structure increases by one unit, the value of the company will decrease by 0.510 assuming that the other independent variables are constant.
3. The profitability variable regression coefficient is 0.199, meaning that if profitability increases by one unit the company value will increase by 0.199 assuming that the other independent variables are constant.
4. The regression coefficient of the firm size variable is -0.087, meaning that if the firm size variable is one unit, then the company value will decrease by 0.087 assuming that the other independent variables are constant.

Hypothesis Test

1. The effect of capital structure on firm value

This study shows the results that capital structure affects firm value. The level of capital structure (DER) will affect the value of a company. The signaling theory states that a company will take action to guide investors about management's views on the company's prospects which will affect the company's value. In this theory, the instructions conveyed by the company to external parties are in the form of financial statement information. This information needs to be conveyed aimed at reducing the asymmetry of information between the company and external parties because internal parties know more about the company's prospects and image than external parties (investors and creditors). According to Hanafi (2013), capital structure is a signal that managers send to the market. An increase in debt owed by a company will increase the risk and threaten bankruptcy. The low corporate debt will minimize risk. This risk illustrates the inability of a company to pay debts so that it will have a negative impact on company value.

The data obtained in this study indicate that most of the samples have above-average capital structures that are in line with firm value. For example, some sample firms have an increase in capital structure followed by an increase in firm value. Likewise, several samples experienced a decline in capital structure followed by a decrease in firm value. From these data conditions, it can be concluded that the capital structure affects firm value. This study obtained results in line with Rumondor et al. (2015), namely that capital structure affects firm value.

2. Effect of profitability on firm value

This study shows that profitability affects firm value. The level of company profitability as measured by ROA has an effect on the level of firm value. Profitability is the ability of a company to generate profits. The higher the profit generated by the company is a good signal for investors to decide to invest in the company. The more demand for shares of a company, the price will increase, so that it will affect the increase in company value.

Signaling theory illustrates that profitability describes the prospects of a company that can be conveyed to potential investors so that it will affect company value. The processed data shows that most companies that experience an increase in profitability are followed by an increase in firm value, as well as those that experience a decrease in the value of profitability, followed by a decrease in firm value. It can be concluded that profitability has a significant effect on firm value. Data conditions like this can also support the signal theory which states that the increase or decrease in the profitability of a company can be a good or a bad signal for investors to judge the company.

This study obtained results that can support the research of Nofrita (2013) which states that profitability has an effect on firm value.

3. The effect of company size on firm value

This study found that company size has no effect on firm value. The results of statistical tests also show that company size has an effect on firm value. In this study, company size describes the size of a company seen from its total assets. The larger the total assets, the bigger the size of the company, on the contrary, the smaller the total assets, the smaller the size of a company. However, the size of the assets owned by a company does not necessarily indicate the effectiveness and efficiency of management in their use, so investors do not use the size of a company in assessing the company.

The results of this study are not in line with the picture of the signaling theory, because investors do not see the value of a company from its size proxied by total assets. Large companies are not necessarily effective and efficient in managing their assets to generate profits that will have an impact on investors. These statistical results are supported by most of the data that shows that investors are interested or not in buying shares of a company not because of the size or size of the company's assets. So that the company size is concluded to not affect the company value. The results of this study support Dewi and Wirajaya (2013) who obtained research results that company size has no effect on firm value.

CONCLUSION

The first hypothesis is accepted, namely capital structure influences firm value. The second hypothesis is accepted, namely, profitability affects the firm value. The third hypothesis is rejected, namely, the size of the company has no effect on firm value.

As for some suggestions that researchers can convey as follows :firm Value is one of the indicators of a company's financial performance. Therefore, investors can see the firm value to make investment decisions. For companies, especially for company managers, it is necessary to review and pay attention to the quality of the firm's value, especially in terms of capital structure and profitability.The next researcher is expected to be able to use other variables to be studied such as managerial ownership, company growth, and so on.

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INTENTION TO USE MOBILE BANKING APPLICATION: GENDER-BASED

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ABSTRACT

This research is aimed to examine the gender difference toward intention to use the mobile banking application in Semarang. Data is collected by self - administered questionnaire, and pass over to bank customer which done their financial transaction by Automatic Teller Machine. The Sample used in this research is 50 respondents, consist of 30 male respondents and 20 female respondents who never have a mobile banking application before. The results of this study indicate that there is a gender difference in the intention to use mobile banking applications. On the other side, even it is easy to be used, female customers are not feeling the benefit offered, thus resistant to use mobile banking applications. This result brings another contradiction toward The Technological Acceptance Model. Data is examined by the SPSS application, and Mann – Whitney statistical model.

Keywords: Mobile application; bank; gender difference

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INTRODUCTION

The development of information technology and communication can be assured to provide a financial benefit for financial and banking industrialists in lowering the customer service operational cost compared with the traditional way. The raise competing situation between bankers also becomes the pushing factor for each banker to maintain their customer loyalty and hunting for new customers.

Before the era of Industry 4.0, bank industrialist already applies the internet-based customer service. According Laukkanen (2007) the very basic difference between internet banking and mobile banking is the access location and the size of the communication tool used.

Besides, from the perspectives of service, customers will gain new experience and feel more comfortable if the banks provide mobile service which can be accessed anywhere and every time. Even the usage of mobile telecommunication is already wide array Riquelme and Rios (2007) said that only half of all internet banking users willing to switch to mobile banking. The skeptical opinion which supported by the unsupported internet network provider, low data security, and the low customer knowledge regarding mobile banking will push harder the barrier of mobile banking application usage.

Several early research by Klejnen *et al.* (2004) only provide information about the factors which increase the usage level of mobile banking such as age, computer usage ability, personal mobile technology availability, and social effect. Wan *et al.* (2005) proved that male customers in Hongkong are easy to adopt mobile banking technology compared with female customers. This research is supported by Yang (2005) which proved that female customers in Singapore are more concern about security matters compared with male customers which concerned with transaction effectivity.

Even the mobile banking application is attractive, Seidel (2009) by his research showed that the majority of US citizens never try to settle up the transaction by their mobile banking application. Further, Faqih and Jaradat (2015) have proven that the gender difference can affect the mobile banking usage level, thus attitude difference between male and female customers in mobile banking application usage is still attractive to be examined. Based on these facts, researchers will continue the research regarding the intention to use mobile banking application in Semarang, based on gender differences.

LITERATURE REVIEW

Mobile Banking

The term of mobile banking that used in this research is an application created by the banking industry through communication tools which connected to the internet and provide the possibility for the customer to acquire financial service form the bank. Sinisalo *et al.* (2007) said that mobile banking application is one of the most popular marketing tools, which bring the potential impact to bank promotion activity. Laukkanen (2007) has proven by using the mobile banking application, service quality is improved because of the customers available to conduct the transaction in everywhere, and anytime. Even though the research conducted by Souanta and Mattila (2004) has proven that only half of Finland citizens use the mobile banking application, based on age differences.

Several constructs have been widely applied to predict the intention to use mobile banking applications. It is perceived risk (Chung and Kwon, 2009), ease of use, perceived benefit, system quality, and self-efficacy (Luarn and Lin, 2005).

Perceived Risk

Generally, society will concern about the risk that should be taken if using the new technology, this is proposed by Laforet and Li (2005) by their research. Further Wu and Wang (2005) have proven the relationship between perceived risk and intention to use mobile banking in Taiwan. The perceived risk will be the most important factor if related to mobile communication tools because it is directly connected by wireless networks which usually have a higher risk of a data security violation.

Perceived Ease of Use and Perceived Benefit

In the basic theory, the easier information technology to be used, then customers will more fell comfortable and trust to adopt it. Davis (1989) has proven the significant effect of perceived ease of use toward the level of IT adoption. A similar result also has been shown by Luarn and Lin (2005), and also Wang and Liao (2007). Besides, Venkatesh and Davis trough their research explained that the bigger perceived benefit, bank customers will adopt the mobile banking application frequently.

Social Norm and Gender

The social norm is a kind of thing that is related to family and friends in technology usage. Pedersen and Ling (2002) explained that external factors and customer social relationships have a significant impact on new technology adoption. The customers will use mobile banking applications if they have positive suggestions from their friends and families. The research conducted by Riquelme and Rios (2010) also proved that social norms affect mobile banking application adoption.

Further, Dong and Zhang (2011), has proven that gender differences have a significant effect on information technology usage level. More specifically, research conducted by Faqih and Jaradat (2015) promoted that gender differences also provide different implications for new technology implementation. Based on the literature review above, thus the researcher proposes this hypothesis to be tested.

H_1 : There is different intention to use mobile banking application between male and female customers in Semarang.

H_0 : There is no different intention to use mobile banking application between male and female customers in Semarang

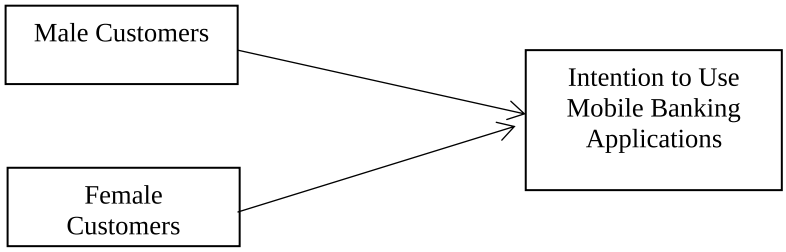

Figure 1. Research Model.

RESEARCH METHODS

Research Sample

Samples used in this research are bank customers in Semarang which not use mobile banking applications yet in their gadgets. The total sample size used are 50 customers, comprised of 30 male respondents, and 20 female respondents. The sampling techniques used in this research are a combination of purposive sampling and convenience sampling.

The data derived from the printed questionnaires which directly handover to the customers after they settle their transaction activity in an automated teller machine. The questionnaired consist of 23 items of statements and respondents are demanded to choose the agree, very agree, disagree, and very disagree option based on Likert – like scale.

Measurement Model Evaluation

The questionnaire used in this research, previously used by Riquelme and Rios (2010). Even has been used before, the validity and reliability test are still commenced in this research.

Table 1. Questionnaire's Statement Item

No	Statements List
1	I think, using a mobile application to transaction settlement is a risky action.
2	I doubt the transaction can be settled smoothly by using a mobile banking application.
3	Conducting a banking transaction using the mobile banking application is full of risk, and the data can be lost easily
4	Sending information regarding transactions using mobile banking application is a dangerous thing.
5	Conducting a banking transaction through a mobile banking application is dependable.
6	Conduction banking transaction through mobile banking applications gives me more benefits than through PC.
7	Conduction banking transaction through mobile banking application is comfortable than through PC.
8	Banking transactions using mobile banking will eliminate the time and place limitations than through PC.
9	Mobile banking application is not a substituted technology for better banking transaction
10	Conducting a banking transaction through a mobile banking application is easy to be done.
11	It is very easy for me to remind the steps of conducting a banking transaction through mobile banking.
12	I believe that mobile banking application is easy to use to settle the banking transaction.
13	Conducting a banking transaction through mobile banking is a simple activity that can be done by me.
14	If the mobile banking facility is provided, I will use it soon.
15	If the mobile banking facility is provided, I will use it regularly.

16	If the mobile banking facility is provided, I will use it to seek the information regarding banking product only, but not to use for the transaction.
17	Mobile banking applications will make it easy to conduct a banking transaction.
18	Mobile banking application is very useful when I need to settle a banking transaction.
19	Mobile banking application is useful to eliminate the limitation of time and place to banking transaction
20	Mobile banking application will give me full authority control of all my banking transaction
21	If I use the mobile banking application to conduct a banking transaction, I will earn a higher social status between friends.
22	If I use the mobile banking application to conduct the transaction, I will be considered more prestigious than the others who do not use mobile banking.
23	I will become a trendy person if using a mobile banking application to conduct a banking transaction.

Model Evaluation

Collected data is examined by the SPSS application through the Mann Whitney U Test method. This is one of several non-parametric statistical techniques that testing the difference in constructs based on the 5% significance level.

RESULT AND DISCUSSION

Descriptives

With the amount of 50 respondents which consist of 30 male respondents, and 50 female respondents used in this research. All respondents are bank customers who do not have a mobile banking application and never use it before. Based on their age, we can classify them in 3 categories, 17-30 years old (20 respondents), 31-40 years old (13 respondents), and above 40 years old (17 respondents). Based on their education level, we can classify them in 3 categories, a master’s degree (3 respondents), a bachelor’s degree (43 respondents), and a high school degree (4 respondents).

Validity and Reliability Test

Reliability testing result shows that items which used to measure the difference intention to use mobile banking application between male and female customers in Semarang are reliable to be examined with Cronbach’s Alpha value 0,803. Besides, the validity test which using critical value 0,235 as R table showed that only 14 items of questionnaires can be used for this research. The results of reliability and validity are shown below.

Table 1. Reliability Test

Cronbach's Alpha	Cronbach's Alpha on Standardized Item	*item*
0.803	0.801	23

Table 2. Validity Test

	Scale Variance if Item Deleted	*Corrected Item-Total Correlation*	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item10	255,024	,860	,838	,985
Item11	250,385	,867	,850	,984
Item12	249,634	,913	,853	,984
Item13	245,684	,901	,884	,984
Item14	246,686	,933	,916	,983
Item15	252,449	,912	,900	,984
Item16	251,976	,947	,928	,983
Item17	245,236	,931	,896	,983
Item18	245,592	,939	,916	,983
Item19	249,063	,929	,894	,983
Item20	252,763	,833	,766	,985
Item21	240,891	,948	,917	,983
Item22	250,951	,852	,783	,985
Item23	248,671	,878	,816	,984

Hypothesis Testing

This research is using the Mann Whitney method to examine the different intentions between male and female customers in using mobile banking applications. Based on this method, the researcher will determine the hypotheses tested are accepted if the significance value is below 0,05. The statistical test is shown in table 3.

Table 3. Mann Whitney Test Result.

Metode Analisis	Signifikansi	Kriteria Signifikansi
Mann - Whitney U	0,00	0,05
Wilcoxon W	210,000	
Asymp Sig	0,00	

Based on the statistical test by the Mann Whitney technique, we can conclude that the hypotheses proposed in this research are supported. Thus, this research shows us the different intentions between male and female customers to use mobile banking application in Semarang. To examine the difference, the researcher provides the tabulation which informed us regarding the mean value of each item in questionnaires.

Table 4. Mean Value

Construct	**Item**	**Score**		**Mean**	
		Male	**Female**	**Male**	**Female**
Ease of Use	Item 10	4,26	4,45	4,305	4,4125
	Item11	4,3	4,35		
	Item12	4,26	4,45		

	Item13	4,4	4,4		
Intention to Use	Item14	4,33	1,7		
	Item15	4,06	1,85	4,13	1,76667
	Item16	4	1,75		
Perceived Benefit	Item17	4,33	1,65		
	Item18	4,5	1,85	4,3075	1,8125
	Item19	4,3	1,85		
	Item20	4,1	1,9		
Social Norm	Item21	4,3	4,4		
	Item22	4,16	4,4	4,25333	4,43333
	Item23	4,3	4,5		

Discussion

Table 4 above showed the difference in intention to use. The mean value of male respondents answers agrees to a user the mobile banking application with a mean score of 4,13, while female respondents answer most disagree with a mean score 1,76. Thus this research shows us the consistency to support the previous research that gender brings the effect to technology usage (Wan *et al.,* 2005; Faqih dan Jaradat, 2015).

Another difference as the result of this research is from Perceived Usefulness, which male customers strongly agree that mobile banking application is useful in banking transaction with a mean score of 4.30. On the other side, the opposite answer comes from female customers with a mean score of 1.81. Even previous research conducted by Venkatesh and Davis (2000) has proven when technology is assumed as useful, then customers will have the intention to adopt it, this research provides another result that gender has the significant power to make difference.

Another result showed by table 4 above is the similar perception between male and female customers regarding the ease of use of the mobile banking application. Before the handover, the questionnaire, the researcher do some demonstration on how to use the mobile banking application for a specific purpose like balance checking and transaction settlement. Almost all respondents are savvy to interact with the application, and fast to learn and operate the mobile banking application

Another result of this study is the similarity in perception between male and female customers that the mobile banking application is easy to operate with an average answer of male customers is 4.30 and female customers is 4.41. However, although it is perceived as easy to use, it turns out that female customers do not have the intention to use the mobile banking application further.

Further, a similar matter is also found in the Social Norms, in which mobile banking application users are considered to have a higher social status and keep up with the times when compared to those who do not use mobile banking applications. Hyde-Clarke *et al.* (2014) have succeeded in proving that there are differences in the ability to use communication technology. This is due to the differences in education levels. The higher the level of education, the more social networks one has. By looking at the descriptive statistics of this study, where respondents are predominantly by educated customers, it can be believed that the social networks owned by each respondent also have a contribution in forming customer perceptions of the mobile banking application.

The interesting issue that showed by this research is items from the Perceived Risk construct is not tested, because they are not valid, even though Riquelme and Rios (2010) in their research stated that the statement items were valid. Besides, if we look specifically at female customers, there is a clash of theoretical concepts. The Technological Acceptance Model (TAM) theory developed by Davis (1989) reveals that if a technology is beneficial and easy to use, consumers will tend to accept and use the technology.

Even so, the results of this study indicate that although customers find it easy to use the mobile banking application, female customers have not felt the perceived benefits so they do not need to use the application. Thus, further research is needed to confirm the contradictions that occur in the Technological Acceptance Model concept used in this study.

CONCLUSION

This study proves that there are differences in the intention to use mobile banking applications between male and female customers in Semarang. Particularly the difference lies in the perceived benefit and the intended use, where the female customers do not feel the perceived benefit from using the application so that they do not have the intention to use it. The results of this study are useful for enriching the academic literature in the field of Management.

Some limitations of this study are only 14 items of questionnaires is declared valid. This can be material for improvement for further research, especially in the development of measuring instruments. Also, further research is expected to examine the differences that arise in the use of mobile banking applications by using the generation category as a differentiator. Thus the research carried out can give different results. Besides, it is also hoped that further research can use a larger sample size to get more comprehensive.

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THE LEVEL OF SERVICE QUALITY OF FAST-FOOD RESTAURANTS IN SEMARANG

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ABSTRACT

The purpose of this research is to find out the influence of service quality (tangible, reliability, responsiveness, empathy) on customer loyalty. The object chosen in this research is fast-food restaurant in Semarang. The sample in this research is determined by purposive sampling method which then obtained the number of a sample as many as 100 respondents. The data in this research were obtained by the questionnaire. The data analysis used in this research is multiple linear regression analysis methods. The results of this research prove and give the conclusion that: service quality has a positive and significant influence on customer loyalty. The empathy variable is the highest variable affecting customer loyalty, because during the COVID 19, personal service was needed. Each consumer is unique, so the needs of customer services vary. Customers can use delivery or take away, home delivery, drive-thru, online and KFC box services

Keywords: service quality; customer loyalty; fast-food restaurant

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INTRODUCTION

During the outbreak of the corona outbreak in 2020, now it requires the public to pay attention to the government's affirmation to prevent wider spread. With these conditions, culinary business people, especially fast-food restaurants, cannot close and must continue to operate. Restaurants can remain open, but it is necessary to pay attention to many things including improving services and providing facilities according to the standards for preventing the corona / COVID virus pandemic 19 (https://ekonomi.bisnis.com). To serve customers who want to keep coming to the restaurant, the business owner must provide extra facilities. Namely, washing hands sink, following the government SOP on the prevention of the corona virus. Among them are providing hand sanitizers for guests at the entrance and most importantly maintaining the cleanliness and health of staff or employees. Today's competition between fast-food restaurants is no longer oriented towards increasing sales volume but more oriented on how to create loyalty. Marketing has an important role in the company to create value for customers and build strong relationships with customers. The higher the level of competition, will cause customers to face more alternative choices for products, so that customers will always look for the value that is considered the highest of several products (Kotler 2005). Low service quality will lead to decreased customer loyalty, therefore efforts to improve service quality will be much more effective for business continuity. One of the businesses most concerned with the level of service today is fast-food restaurants. Competition for fast-food restaurants cannot be avoided, because various similar restaurants have sprung up in the city of Semarang. Semarang is one of the cities in the province of Central Java and is the provincial capital. The development and population density make Semarang the 5th largest metropolis in Indonesia. The fast-food restaurant business in 2019 is believed to grow 15%, supported by the sentiment of improving public incomes and the increasing trend of dining outside the home. The performance of the fast-food restaurant business is supported by improvements in public consumption as reflected in the consumer confidence index (CCI) which always increases every year. Based on a Bank Indonesia survey, the CCI reached 110 points in 2016 and continued to rise to the level of 123.5 at the beginning of 2019 (https://jateng.idntimes.com).

KFC fast-food restaurant is an American fast-food restaurant chain headquartered in Louisville, Kentucky, that specializes in fried chicken. It is the second-largest restaurant chain in the world (measured by sales) after McDonald's, with 22,621 locations globally in 150 countries as of December 2019. In Semarang, there are 5 KFC stores namely KFC Candi, KFC Pandanaran, KFC Citraland Mall, KFC Java Supermall, and KFC Youth. The application of social distancing or social distancing to anticipate the spread of the corona virus (COVID 19) has an impact on the culinary industry sector. After the enactment of the appeal, fast-food restaurant entrepreneurs complained about the decline in guest visits or food orders. Helping the government in running the social distancing program, KFC urges its loyal customers to use delivery services, both take away, home delivery, drive-thru, online, and KFC box. Even though it has decreased, but KFC fast-food restaurants are still at the top of the Top Brand until 2019 phase 2 (https://www.topbrand-award.com). Based on the background and competition faced by KFC fast-food restaurants, it is interesting to research on The level of Service Quality of fast-food restaurants in Semarang.

LITERATURE REVIEW

Service Marketing

The definition of marketing (marketing) according to Kotler (2012:220) is a human activity that is directed to fulfill needs and wants through an exchange process. Meanwhile, services according to Lovelock (2010:15) is a form of leasing that can provide benefits for consumers. So it can be concluded that service marketing is a process that creates and delivers services that consumers need. Where in it there are activities such as attracting consumer attention, retaining consumers which are all done to meet the needs and desires of a company that runs a business.

Service Quality

Service Quality according to Tjiptono and Chandra (2012:74) Service quality reflects the comparison between the level of service delivered by the company and customer expectations. According to Kotler (2012:285), There are five dimensions or determinants of service quality, the five dimensions include: First tangible are tangible aspects that can be seen and felt. Second, reliability is the reliability aspects of the service system provided by the service provider. Third, responsiveness is the desire to help consumers and provide the services needed. Fourth, assurance is a service guarantee that assures security, ability (competence) of resources in providing services. Fifth, empathy (empathy) is related to ease of service, friendliness, communication, and the ability to understand consumer needs.

Customer Loyalty

The definition of customer loyalty according to Tjiptono and Chandra (2013:88) stated that so far, customer loyalty has often been linked to repurchasing behavior.

RESEARCH METHODS

The population in this study were consumers who had consumed or visited KFC fast-food restaurants in Semarang with a total of 100 respondents. Sampling using purposive sampling technique with criteria, among others: aged over 17 years, domiciled in Semarang, have consumed KFC fast-food restaurant products.

RESULT AND DISCUSSION

Respondent Description

Respondents in this study were taken from consumers who had been to KFC fast-food restaurants, aged over 17 years and domiciled in Semarang. The questionnaire was distributed to 100 respondents. The validity and reliability test results for all indicators are valid and reliable. And the classical assumption test has been done, so it is feasible to do a regression analysis model in this study. The analysis used in this study uses multiple linear analysis, with the following conceptual framework:

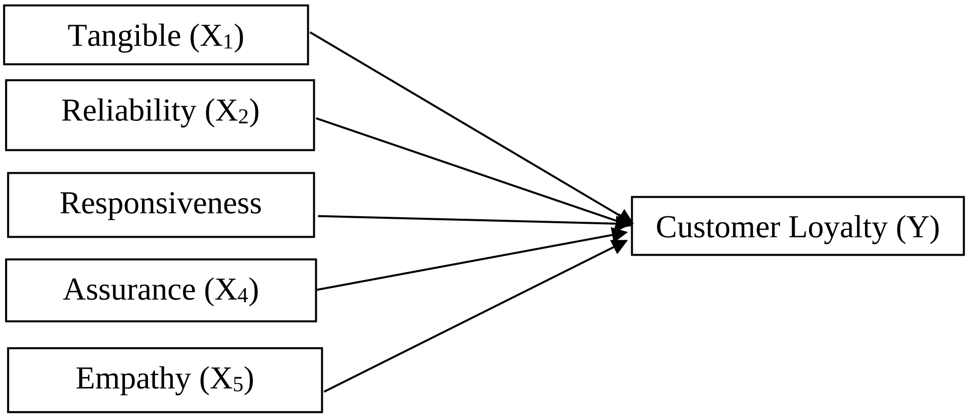

Figure 1. Conceptual Framework

Hypothesis

Based on the conceptual framework and previous research conducted by Darmawati (2016), Sirena and Bobby (2014), Henry (2013), Melysa (2013), Richie (2013), Dulkhatif, et al (2016), Septiadi and Hening (2013), Aberian and Ruzikna (2015), Galib (2013), Ren-Fang (2015), Listien, et al (2012), Novita (2012) and Rinny (2013), then the hypothesis can be determined as follows:

H_1 : Tangible has a significant positive effect on customer loyalty.
H_2 : Reliability has a significant positive effect on customer loyalty.
H_3 : Responsiveness has a significant positive effect on customer loyalty.
H_4 : Assurance has a significant positive effect on customer loyalty.
H_5 : Empathy has a significant positive effect on customer loyalty.

Validity and Reliability Test Results

The results of the validity and reliability tests can be seen in the following table 1:

Table 1. Validity and Reliability

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
x1	19,1883	15,465	,831	,704	,936
x2	19,2283	15,444	,845	,726	,935
x3	19,3250	15,774	,826	,692	,937
x4	19,3058	15,880	,811	,674	,939
x5	19,2158	15,812	,810	,680	,939
y	19,1783	15,416	,888	,790	,930

In the table above, see the value of the Scale Corrected Item-Total Correlation, this value is the value of the validity of the items. While the Cronbach's Alpha if Item Deleted value is the item reliability value.

Table 2. Reliability Test Results Table

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,946	,946	6

In the reliability statistics table, see the value of Cronbach's Alpha Based on Standardized Items, this value is the overall reliability value of the test, the greater the value means the more reliable.

Normality Test Results.

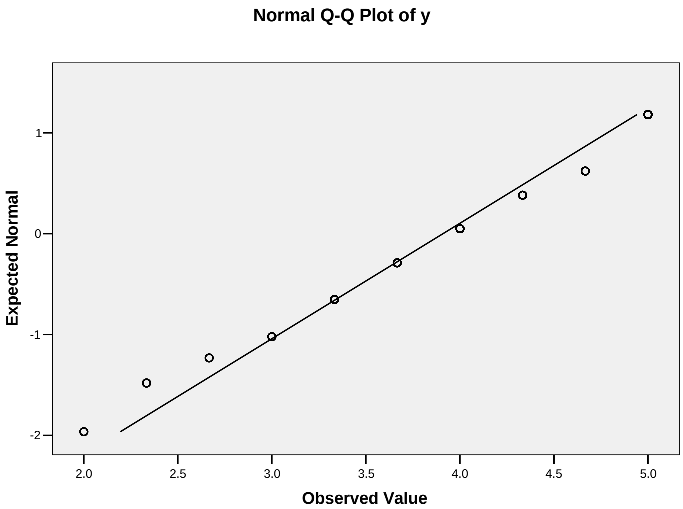

Figure 2. Normality Test Results

Based on the graph in the image above, it can be seen that the points on the graph coincide and follow the direction of the diagonal line, so it can be concluded that the data is normally distributed.

Table 3. Reliability Test Results Table

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59,627	5	11,925	70,518	,000[a]
	Residual	15,896	94	,169		
	Total	75,523	99			

a. Predictors: (Constant), x5, x4, x1, x3, x2

b. Dependent Variable: y

From the table above, the F-number simultaneously is 70.518 and the probability value is 0.000 smaller than the significance level of 5% or 0.05; So it can be concluded that there is a positive and significant influence between tangible, reliability, responsiveness, assurance, and empathy on customer loyalty, simultaneously (together) it means that the regression model is declared fit or feasible as a research model.

Table.4. Reliability Test Results Table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	,118	,207		,569	,571		
	x1	,217	,080	,227	2,713	,008	,319	3,136
	x2	,187	,085	,193	2,191	,031	,288	3,475
	x3	,169	,083	,170	2,031	,045	,321	3,112
	x4	,174	,081	,174	2,148	,034	,342	2,922
	x5	,239	,079	,241	3,023	,003	,351	2,850

a. Dependent Variable: y

The results of the multiple linear regression equation above provide the understanding that :

a. The constant (b0) is 0.118 which means that if tangible, reliability, responsiveness, assurance and empathy remain or do not change, then customer loyalty will be positive.
b. The regression coefficient of tangible variables is 0.217 (positive), reliability is 0.187 (positive), responsiveness is 0.169 (positive), assurance is 0.174 (positive), empathy is 0.239 (positive), which means that the better consumer perceptions in responding to the indicators of the five variables this, it will be followed by an increase in customer loyalty.

Based on the results of the t-test, it can be proven as follows:

It can be seen that there is a positive influence between the tangible variable (X_1) on the customer loyalty variable (Y) with a t value of 2.713 and a significance or probability value of 0.008 <significance level of 5% or 0.05. Then Ha is accepted thus stating that the tangible variable has a significant effect on customer loyalty. This indicates that the better the tangible has a good impact on increasing customer loyalty.

It can be seen that there is a positive influence between the variable reliability (X_2) on the customer loyalty variable (Y) with a t-value of 2.191 and a significance or probability value of 0.031 <5% or 0.05 significance level. Then Ha is accepted, so that the variable reliability has a significant effect on customer loyalty. This indicates that better reliability has a good impact on increasing customer loyalty.

It can be seen that there is a positive influence between the responsiveness variable (X_3) on the customer loyalty variable (Y) with a t value of 2.031 and a significance or probability value of 0.045 <significance level of 5% or 0.05. Then Ha is accepted, thus stating that the responsiveness variable has a significant effect on the customer. This indicates that the better responsiveness has a good impact on increasing customer loyalty.

It can be seen that there is a positive influence between the assurance variable (X_4) on the customer loyalty variable (Y) with a t value of 2.148 and a significance or probability value of 0.034 <significance level of 5% or 0.05. So Ha is accepted so that the assurance variable has

a significant effect on customer loyalty. This indicates that better the assurance has a good impact on increasing customer loyalty.

It can be seen that there is a positive influence between the empathy variable (X5) on the customer loyalty variable (Y) with a t-value of 3.023 and a significance or probability value of 0.003 <5% or 0.05 significance level. Then Ha is accepted, thus stating that the empathy variable has a significant effect on customer loyalty. This indicates that better empathy has a good impact on increasing customer loyalty.

Table 5. Determination Coefficient Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,889[a]	,790	,778	,41123

a. Predictors: (Constant), x5, x4, x1, x3, x2

Based on the results of regression calculations, the adjusted Coefficient of Determination (adjusted R^2) is 0.778, meaning that the variation of all independent variables (tangible, reliability, responsiveness, assurance, and empathy) can explain customer loyalty by 77.8%. While the remaining 22.2% is explained by other variables not proposed in this study.

CONCLUSION

Based on the research results, the following conclusions can be drawn

The empathy variable becomes the first largest variable that affects customer loyalty of fast-food restaurants in the city of Semarang. The tangible variable is the second-largest variable affecting customer loyalty of fast-food restaurants in the city of Semarang. The variable reliability is the third largest variable affecting customer loyalty of fast-food restaurants in the city of Semarang. The assurance variable is the fourth largest variable affecting customer loyalty of fast-food restaurants in the city of Semarang.The responsiveness variable is the fifth largest variable that affecting customer loyalty of fast-food restaurants in the city of Semarang.The empathy variable is the highest variable affecting customer loyalty because, during the COVID 19 pandemic, personal service is needed. Each consumer is unique, so customer service needs vary. Customers can use delivery services, both take away, home delivery, drive-thru, online, and KFC box.Tangible variables, responsiveness, assurance, empathy partially have a positive and significant influence on customer loyalty.

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