Analysis Internal Factors Of Bank Performance On Bank's Profitability in Indonesia

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Abstract

This research aims to analyze internal factor n bank performance was influenced by using macroeconomic factor as control variable. The determinants used for internal factor of bank consist of size, liquidity, capital and credit risk with control variable such as GDP and inflation. Quantitative method is used and for the sample suddenly stand up from 15 banks with specific criteria that include in Indonesia Stock Exchange. Based on the multiple regression conclude that concluded size, capital, credit risk and inflation have significant positive effect on Return on Asset, while liquidity and GDP have a significant negative effect on Return on Asset.

Keywords: ROA, Size, Liquidity, Capital, Credit Risk, Macroeconomic

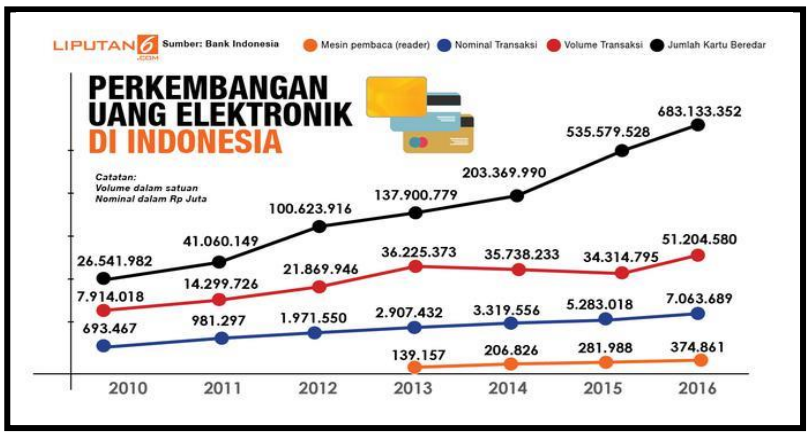
1. Introduction

Nowadays, technology is currently experiencing rapid development. Over time, majority companies also following the growth of technologies. This condition occurs because technology continues to develop every decade. Implementation from using technology is practiced by various companies because it can bring various benefits and advantages. During development period, technology works with various sectors that can sustain in fulfilling aspects of life. Nowadays, the-banking industry is a much needed because the functions to store, collect, lend money to individuals or companies and to issue banknotes or promissory notes.

Afterwards seen increase in the value of electronic money transactions using

internet banking. Initially, the bank was used in 2001 which was first implemented by one of the banks, namely PT Bank Asia Tbk such as ***Klik BCA*** that was introduced by Bank Indonesia. Subsequently, government make a policy that connects banks and the internet. At beginning seen implementation of internet banking had no effect on bank performance but in the several period there has been increase (Marezco, 2014)

Figure 1.1: Volume Transaction in Indonesia



Source: Bank Indonesia, 2018

Based figure 1.1, it can be seen annual increase caused by the internet. The main reason is using internet will be more efficient, productive and easier in various activities similar to those offered by banks. The function of e-banking is not focused on one point but also marked by the facilities offered to support the needs of the people now (Kamalina, 2018). E-banking is usually known as EFT which helps every transaction process including online banks, ATMs, debit / credit cards, other payment using internet role. On this condition, E-banking makes it easier with using card to connected with internet as an electronic transaction.

Therefore, E-banking will be used as a tool to replace physical money because it is simpler to conduct transactions via internet (Bankrate, 2018). According to Bill Gates (2008); "Banking is important, banks are not". This means that the role of banks in general will disappear over time but for banks if using electronic devices will slightly increase because there are always new users who will use internet technology to do various activities (UKEssays, 2016).

Figure 1.2: Growth Transaction Using E-Banking in Indonesia

Source: Bank Indonesia, 2018

Based figure 1.2, e-banking users in Indonesia have increased every year marked by the number of transactions carried out. This data was taken from Bank Indonesia. In general, many users use cash as the main choice for payment. However, now there are various alternative payment methods according to the graph that can be use.

Figure 1.3: Performance ROA

Source: Financial Report OJK, 2018

According to the figure 1.3, performance ROA sustain fluctuation. It indicates ROA bank still in shock position which influenced by the slowing down of third party funds and capital. In fact, the growth ROA despite experiencing good conditions in 2018. Based on the Indonesian banking statistics (SPI) released by the Financial Services Authority (OJK,2018), ROA has increased by 11.5 basis points (bps), leading to a 2.50% rate as of March 2018 which supported by efficiency and enhancement credit which stimulate to get higher profits . In other words, the current condition of the bank's performance has met the expectation but indeed, it must be encouraged by several efforts to make the bank healthier which will ultimately make the economy better. There are several ratios used in this research to know whether the ratio does or doesn't give significant influence to the ROA. The ratios use in this research to measure the profitability of banks are size, liquidity, capital, credit risk, GDP and inflation.

2. Literature Review

2.1. E-Banking

According to Hasal et al. (2002), banks using e-banking concluded to have better performance than non-internet banks. Through the relationship between internet banking and profitability found a significant negative effect on the internet caused by diversification. Based on journals, Hernando and Nieto (2005), the performance of banks has high profitability due to increase income from reduced costs incurred by banks for staff. Hernando and Nieto (2007) also analyzed and found the impact of e-banking implementation on banks with positive results from data taken over three years using ROE and ROA. On the other hand, Sathye (2005) has an opinion similar to Sullivan (2000) that internet banking does not have a significant effect on bank performance. As a result, the implementation of internet banking does not support the effectiveness of bank performance.

2.2. Banks

Banks are institutions that act as financial controllers by providing loans in the form of credit, savings and provide financial services that will help in getting a profit (Thidi, 2008). According to the Law of the Republic of Indonesia Number 10 of 1998 revised, banks are business entities that obtain funds from the public in the form of savings and distribute to the community in the form of credit and or other forms in order to improve the standard of living of the community (Ferdinanwisnu, 2013). According to the Encyclopedia of Financial Economics and Trade, Bank is a financial institution that performs various ways such as lending, channeling currency, supervising currency circulation, storage of money or valuables, and can be used as a guarantee to finance the company's business.

2.3. Financial Statement

Financial statements are part of the financial reporting process covering several components such as balance sheet, income statement, and statement of cash flow (Amanda, 2017). According to Siegel who was reiterated by Kurds (1999), that "Financial Statement include balance sheet, income statement, and statement of financial position. All three can be combined with complementary reports to describe the financial status or performance in the organization (Ramadhan, 2013)".

2.4. Financial Ratios

1. Return on Asset

According to Hanafi and Halim (2003), "ROA is company's financial ratios related to the profit potential measure the strength of the company resulting in profits or earnings at the level of income, assets and also specific stock capital (Winata, 2013)". The formula is:

$$\text{ROA} = \frac{Net\ Income}{Total\ Asset} \quad (1)$$

2. Size

Size of bank is useful to get conceivable economies of scale. Banks can spare their cost especially the settled cost which might be research & development, banks whose size is substantial can pay less for their sources inputs (Kutum, 2017). The formula is:

Size = log (Total Asset)

(2)

3. Liquidity

According to Rambe (2015), "Liquidity is the ratio that measures the company's capacity to meet its short-term monetary commitments or current liabilities by connecting the amount of cash and other current assets with short-term liabilities can provide a measure that is easy and fast to use in measuring liquidity". In general, a company categories quite liquid if it has a current ratio of at least one (Oyewole, 2013). The formula is:

$$\text{Liquidity} = \frac{Total\ Debt}{Total\ Assets}$$

(3)

4. Capital

Capital demonstrates how much value investment in all out resources. The increase in the capital ratio used to measure available funds to support the bank's business. Subsequently, the bank's capital acts as a safety net in terms of adverse development. The higher bank capital ratios can take advantage of higher profitability (Al-Smadi, 2011). The formula is:

$$\text{Tier 1 Capital} = \frac{Core\ Equity\ Capital}{Risk\ Weighted\ Assets}$$

(4)

5. Credit Risk

BASEL is one-way indicator to reduce the level of risk that occurs in banks. In principle, it is used to overcome problems by reducing the risk of losses from financial and economic crises, improve the health of banks, and become a means of information in the event of a boom and boost period. BASEL propose bank various steps that can reduce the occurrence of credit risk so that banks can find out things that cause various risks (Oracle, 2013) (Indonesia B. , 2012)

$$\text{Credit Risk} = \frac{Capital\ Measure}{Exposure\ Measure}$$

(5)

2.5. Macroeconomic

Along macroeconomic growth, researcher used 2 variables indicator in order to determine economic condition such as inflation and GDP. Flamini et al. (2009) said inflation movements affect bank profitability. Therefore, the bank seeks to overcome the inflation where it will be able to adjust to the interest rate which can cover a larger opinion. Athanasoglou, Brissimis, and Delis (2008) said that an economic become slowdown then the effect will reduce credit loan. Automatically will have an adverse

effect on the company, namely a decrease in the level of profit. Therefore to measure growth can be used GDP as a determination of the economy (Al-Smadi, 2011).

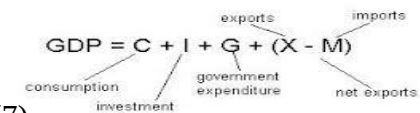
2.5.1 Inflation

According to Laidler and Parkin, 1975, inflation can be indicated by increasing prices marked by decreasing in exchange rate of money but different with Bronfenbrenner and Holzman, 1963, Inflation can make the money exchange rate increase because inflation will be related to price fluctuations that occur with increasing costs but does not influence on employment therefore only focused on the side of money but also from the value of government subsidies and taxes (Frisch, 1983). The formula is:

$$Rate\ of\ Inflation = \frac{CPI_{x+1} - CPI_x}{CPI_x} \quad (6)$$

2.5.2 GDP

According to Imamul Arifin & Gina Hadi W, 2009), the function of GDP as determinant of the country's economic growth. (Sukirno, 2004) assumes that GDP is usually used as means of measuring the value of goods and services in a certain period of time. The formula is:



(7)

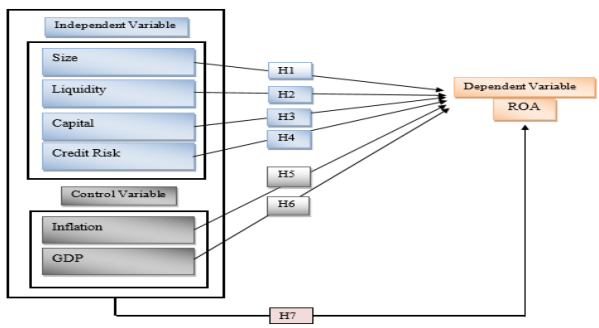
2.6. Research Gap

Based on the previous research, mostly researcher use liquidity, credit risk, capital, size, e-banking as independent variable. Singh (2009) use size, internet and inflation as independent variable. The other researcher, Oyewole (2013) use liquidity, credit risk, capital, size, e-banking, inflation and GDP and using some ratio that has correlation with profitability. Meanwhile, researcher state using only ROA because widely best indicator to measure profitability and related to the asset. Besides that, researcher prefered to choose variable which have big role in bank field with combining the journals. Eventually will support researcher to get the best variable that have different result from other researcher. In the end, shows each variable has significant impact in ROA which are size, liquidity, credit risk and capital will be independent variables and inflation and growth as control variable that indicate factor that influencing performance of bank. The differences between the research with other researchers is researcher not only searching based on interest but concern in economic condition bank especially in Indonesia by using technology e-banking.

3. Research Methodology

This section will briefly explain about the research framework and the hypothesis conducted to explain the temporary answer of this research. The next part will be followed by research instrument, sample and method of data analysis. ***Research Framework***

The research framework can be seen in figure 3.1
Figure 3.1:
Research Framework



Source: Adjusted by Researcher for research purpose, 2018

3.1 Hypotheses

Based on the figure 3.1 research framework, the hypotheses of this research are formulated as follows:

1. H_{01} : $\beta_1 = 0$ or if probability t-statistics > α then there is no significant partial influence of size towards ROA of banks listed in IDX.
   H_{a1} : $\beta_1 \neq 0$ or if probability t-statistics < α then there is a significant partial influence of size towards ROA of banks listed in IDX.

2. H_{02} : $\beta_2 = 0$ or if probability t-statistics > α then there is no significant partial influence of liquidity towards ROA of banks listed in IDX.
   H_{a2} : $\beta_2 \neq 0$ or if probability t-statistics < α then there is a significant partial influence of liquidity towards ROA of banks listed in IDX.

3. H_{03} : $\beta_3 = 0$ or if probability t-statistics > α then there is no significant partial influence of capital towards ROA of banks listed in IDX.
   H_{a3} : $\beta_3 \neq 0$ or if probability t-statistics < α then there is a significant partial influence of capital towards ROA of banks listed in IDX.

4. H_{04} : $\beta_4 = 0$ or if probability t-statistics > α then there is no significant partial influence of credit risk towards ROA of banks listed in IDX.
   H_{a4} : $\beta_4 \neq 0$ or if probability t-statistics < α then there is a significant partial influence of credit risk towards ROA of banks listed in IDX.

5. H_{05} : $\beta_5 = 0$ or if probability t-statistics > α then there is no significant partial influence of inflation towards ROA of banks listed in IDX.
   H_{a5} : $\beta_5 \neq 0$ or if probability t-statistics < α then there is a significant partial influence

of inflation towards ROA of banks listed in IDX.

6. H_{06} : $\beta_6 = 0$ or if probability t-statistics > α then there is no significant partial influence of GDP towards ROA of banks listed in IDX.
   H_{a6} : $\beta_6 \neq 0$ or if probability t-statistics < α then there is a significant partial influence of GDP towards ROA of banks listed in IDX.
7. H_{06} : $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = 0$ or if probability f-statistics > α then there is no significant simultaneous influence of size, liquidity, capital, credit risk, inflation and GDP towards ROA of banks listed in IDX
   H_{a6} : at least there is one $\beta_i \neq 0$ or if probability f-statistics < α then there is significant simultaneous influence of size, liquidity, capital, credit risk, inflation and GDP towards ROA of banks listed in IDX.

3.2 Research Instrument

This research is using quantitative method and the researcher collected the data from secondary sources. The researcher collect the data from annual report of bank in Indonesia Stock Exchange. Eviews 10 used in this research to generate the regression model.

3.3 Sample

According to Arikunto (2002), "Sample is part or representative of population studied". This research uses probability sample with purposive sampling. There are several criteria to choose specific sample in this research which are:

1.Company listed in Indonesia Stock Exchange.
2.Bank should have positive assets, liability and equity.
3.Already implemented e-banking.

Therefore, there are 15 banks chosen as sample in this research using the several criteria that determined by researcher.

3.4 Method of Data Analysis

This research uses parametric statistical approach such as:

1. Descriptive statistics provide information to describe a set of factors by transforming the raw data. It used to measure frequency, central tendency and dispersion (Sekaran, 2003). It will result in outcomes such as mean, median, maximum and minimum, and standard deviation.
2. Classical linear regression models can be called good models if met several assumptions which are then called classical assumptions. The assumption has required to show technique, ordinary least square, so that hypothesis can be determined validly. Those assumptions are normality test, heteroscedasticity test, autocorrelation test, and multicollinearity test.
3. Multiple linear regression analysis is a statistical analysis used to determine the effect of some independent variables on dependent variables (Hafidz, 2010). Partial regression coefficients have a meaningful role in measuring the marginal contribution of independent variable to dependent variable, by holding all other variable fixed.
4. T-test in multiple regression is used to test the significance effect of independent

variable to dependent variable partially (Gujarati, 2004). Right parameter means that the parameter able to explain the dependent variable through independent variable.

5. F-test is used to test the significant effect of all independent variables to dependent variable simultaneously (Gujarati, 2004). F-test can be tested using analysis of variance.
6. Coefficient determination identifies the ability of model in explaining the dependent variable. The value of coefficient determination is zero until one. If the value is near to one, it means the ability of model is better in explaining the dependent variable. This study has more than two independent variables, therefore, adjusted R^2 is used.

4. RESULT

4.1 Descriptive Statistic

Descriptive analysis describes the information for each variable that are being observed. Using EViews 10, descriptive analysis mostly explained about mean, maximum, minimum, standard deviation, and sum of observations. According to appendix 1, we can conclude the explanations as below:

1. Size explained the independent variable. It shows mean of 0.720743 along with standard deviation of 0.040498 indicates that the data mostly spread around 0.720743 ± 0.040498.
2. Liquidity explained the independent variable. It shows mean of 8.129249 along with standard deviation of 4.188571 indicates that the data mostly spread around 8.129249 ± 4.188571.
3. Capital explained the independent variable. It shows mean of 18.71127 along with standard deviation of 4.066224 indicates that the data mostly spread around 18.711 ± 4.066224.
4. Credit Risk explained the independent variable. It shows mean of 0.906667 along with standard deviation of 0.774131 indicates that the data mostly spread around 0.906667 ± 0.774131.
5. Inflation explained the independent variable. It shows mean of 0.036900 along with standard deviation of 0.003704 indicates that the data mostly spread around 0.036900 ± 0.003704.
6. GDP explained the independent varable. It shows mean of 0.141420 along with standard deviation of 0.010666 indicates that the data mostly spread around 0.141420 ± 0.010666.

4.2 Classical Assumption Test

Classical assumption test necessary to determine whether the model reach the requirement. The model has to fulfilled the normality test, heteroscedasticity, multicollinearity and autocolleration in order to reach the best result using multiple regression

1. Normality Test

   One of the statistical test used to know whether the data normally distributed or not

using normality test (Fallo, Setiawa, & Susanto, 2013). Normality test generate the statistical and graphic information about distribution each variable. Based appendix 2, probability of this researcher is 0.181817 > 0.05 explained the data is normally distributed.

2. Heteroscedasticity
   Heteroscedasticity occurs when there is a constant distribution of proportion probability in all X observation (Basuki, 2017). According to appendix 3 the result of regression model is homoscedastic explained that there is no heteroscedasticity occurs in this research.
3. Autocorrelation
   Autocorrelation occurs when there is interference of value in certain period to the value of previous certain period (Basuki, 2017). According to appendix 4 Durbin-Watson result on autocorrelation value of 0.468958 indicates that there is autocorrelation occurs in this research because of the Durbin-Watson value less than 2. The result shows the regression model has no tendency of the existence of autocorrelation.
4. Multicollinearity
   Multicollinearity test conducted whether there is a correlation between variable that observed in this research. According to appendix 5 the highest value of correlation between credit risk to size that is 0.436 and it still consider as no correlation between the variable because the value doesn't exceed 0.7.

4.3 ***Multiple Regression***

Multiple regression analysis is a statistic analysis used to determine the value of dependent variable that influenced by independent variable. This research will show the estimated or predicted value of dependent variable. Multiple regression formula conducted based on the coefficient of each variable. According to appendix 6 multiple regression conducted as follows:

ROA = -6.656479 + 10.62454 Size – 0.058920 Liq + 0.048912 Capital + 0.135895 CR + 9.740613 INF – 2.029027 GDP

4.4 Inferential analysis

4.4.1 T-Test

T-test is a parameter that capable to determine or explained for each independent variable's behavior in influencing the dependent variable (Muhammad, 2015). According to appendix 6 all of the variable has significant influence to the dependent variable.

4.4.2 F-Test

F-test used to indicate the regression model whether the estimation or prediction of the model valid or not (Iqbal, 2015). According to appendix 7 probability F-Statistic has value of 0.000000 less than the significant value of 0.05. Therefore, H_a is accepted and H_0 is rejected which means there is significant influence of size, liquidity, capital, credit risk, inflation and GDP towards ROA in IDX.

4.4.3 Coefficient of Determination

Coefficient of Determination explained the influence of independent variable towards dependent variable or the influence proportion for all independent variables towards dependent variable (Iqbal, 2015). According to the appendix 8 0.714311 means that size, liquidity, capital, credit risk, inflation and GDP refer to 71.4311% influence towards ROA and the rest of 28.5689% explained by the other factor. Also, Coefficient of determination categorized as good when the value closer to the 1.

4.5 Interpretation of Result

1. Influence size towards ROA.

Based on the table 4.6, shows the significant value of 0.0000 and H_{a1} is accepted. Thus, the first hypothesis is "there is significant influence of size towards ROA". Coefficient regression value of 10.62454 indicates that size has positive influence towards ROA.

This result supported with theory Flamini et al. (2009) that size has positive correlation to ROA. The result has same finding with researcher (Siddik, 2015) which verify size and ROA has positive correlation which if firm size increase means ROA also increase. Measurement of size using total asset indicates that company has big size automatically get better profit. Logically, there is no company get good profit if they have low size.

2. Influence liquidity towards ROA

Based on the table 4.6, shows the significant value of 0.0000 and H_{a2} is accepted. Thus, the second hypothesis is "there is significant influence of liquidity towards ROA". Coefficient regression value of -0.058920 indicates that liquidity has negative influence towards ROA.

This result supported with the theory (Yasin, 2018) that liquidity has correlation to ROA. Liquidity and ROA has significant and negatively correlated with performance of bank where lower liquidity will make better financial performance. These results strengthened with other researcher (Al-Smadi, 2011) that conclude increasing liquidity generate low profit by implementation theory of Guru et al. (2000). Logically if company has more liquid assets means lower rate of return.

3. Influence capital towards ROA.

Based on the table 4.6, shows the significant value of 0.0000 and H_{a2} is accepted. Thus, the third hypothesis is "there is significant influence of capital towards ROA". Coefficient regression value of 0.048912 indicates that capital has positive influence towards ROA.

This result supported with the theory (Siddik, 2015) that capital has correlation between capital and ROA. Capital and ROA has significant and positive correlated

with performance of bank where higher capital certainly will make better performance. Indicates bank with higher capital require high cost with decrease excessive cost in order to get higher ROA. This result strengthened with other researcher (Oyewole, 2013) that argue the result compatible with expected sign which is positive and have correlation between capital and ROA.

4. Influence credit risk towards ROA.
Based on the table 4.6, shows the significant value of 0.0088 and H_{a2} is accepted. Thus, the fourth hypothesis is "there is significant influence of credit risk towards ROA". Coefficient regression value of 0.135895 indicates that credit risk has positive influence towards ROA.

This result supported with the theory (Kutum, 2017) that credit risk has correlation to ROA. Credit risk and ROA has positive significant correlated with performance of banks. Based on journal, stated that "credit risk, as measured by BASEL indicator has weak but positive relationship with profitability as measured by return on assets. These finding strengthening with other researcher (Floros Y. A., 2012) that found a weak but positive impact. It indicates higher credit risk will affect the higher profitability of company

5. Influence inflation towards ROA.
Based on the table 4.6, shows the significant value of 0.0000 and H_{a2} is accepted. Thus, the fifth hypothesis is "there is significant influence of liquidity towards ROA". Coefficient regression value of 9.740613 indicates that inflation has positive towards ROA.

This result supported with the theory (Singh, 2009) that inflation has correlation to ROA. Inflation and ROA has significant and positive correlated with performance of bank where the influence of inflation based on economic condition. This finding support with other researcher (Yasin, 2018) that conclude higher inflation will make higher profitability. This condition will depend on economic scale each country if they still cover inflation means the performance can be handle.

6. Influence GDP towards ROA.
Based on the table 4.6, shows the significant value of 0.0008 and H_{a2} is accepted. Thus, the sixth hypothesis is "there is significant influence of GDP towards ROA". Coefficient regression value of -2.029027 indicates that GDP has negative towards ROA.

This result supported with the theory (Floros Y. A., 2012) that GDP has correlation to ROA. GDP and ROA has significant and negative correlated with performance of bank. This finding support with other researcher (Floros Y. A., 2012) which stated

lower GDP will make higher ROA. Therefore, it will focus on economic condition that will be depending on governance action.

7. Simultaneous influence of size, liquidity, capital, credit risk, inflation and GDP towards ROA.
Based on the hypothesis states that "there is significant simultaneous influence size, liquidity, capital, credit risk, inflation and GDP towards ROA" is accepted. F-statistic has proved the hypothesis which is f-statistic value 0.000000 < 0.05. Size, liquidity, capital, credit risk, inflation and GDP towards ROA has explained the variance towards ROA which is 71.4311% meanwhile and the rest of 28.5689% explained by the other factor or variables which doesn't state in this research.

Conclusion

After the researcher passed the classical assumption test and interpret the regression model, the conclusion can be summarizing as follows:

1. Size has positive and significant influence towards ROA. Overall within 2 years in this research, researcher found that size gives the most significant impact and become the best indicator to analyze performance of ROA. Thus, the large amount of size represent higher ROA which means bank performance encounter good condition.
2. Liquidity has negative and significant influence towards ROA. The t-test result indicates the lower liquidity will make higher ROA. Liquidity become one of important indicator to determine how liquid is company. Thus, bank which has lower liquidity refer to good performance.
3. Capital has positive and significant influence towards ROA. The t-test result indicates higher capital create higher ROA. Researcher found that capital encourages small banks to expand probability of survival and market share at all times (during banking crises, market crises, and normal times). Thus, the higher capital means bank is in good performance.
4. Credit Risk has positive and significant influence towards ROA. The t-test result indicates higher credit risk cause higher ROA. Credit risk is indicator to determine how can bank cover the risk by using BASEL. Consequently, higher credit risk will affect higher profitability of bank performance.
5. Inflation has positive and significant influence towards ROA. The t-test result indicates higher inflation cause higher ROA. Researcher use inflation as control variable that consider to seen conversion economy. It means when bank experiencing high economic problem, directly bank has high inflation but it depend on country economy. At this moment, inflation in Indonesia still can be handle by goverment.
6. GDP has negative and significant influence towards ROA. The t-test result represent lower GDP create higher ROA. The cause of GDP movement occurs depend on economic condition which until now Indonesia ranks in 49th which shows a lack of population prosperity in Indonesia. Nevertheless, banking industry still can be handle by goverment.

7. Based on F-test, there is simultaneous significant influence of size, liquidity, capital, credit risk, inflation and GDP towards ROA.Therefore, ROA is affected by all the independent variable simultaneously. It describe 71.4311% of the dependent variable, while the rest of 28.5689% explained by the other factor which are not include in this research.
8. Based on the result of Multiple Regression, researcher found that using control variable more suitable in order to get significant variable. Thus, through inflation and GDP can be proving all the variables have significant impact towards ROA even though has different value on coefficient.

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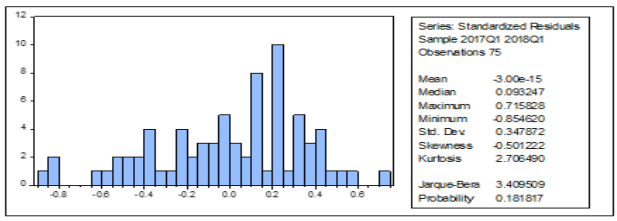
Appendix

A.1. Descriptive Statistic Result

	X1	X2	X3	X4	X5	X6
Mean	0.720743	8.129249	18.71127	0.906667	0.036900	0.141420
Maximum	0.781873	16.67600	25.01000	2.000000	0.043500	0.155500
Minimum	0.646151	1.254200	0.000000	0.000000	0.032500	0.123200
Std. Dev.	0.040498	4.188571	4.066224	0.774131	0.003704	0.010666
Observations	75	75	75	75	75	75

Source: Eviews 10

A.2. Normality Test



Source: Eviews 10

A.3. Heteroscedasticity Result

Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/18/18 Time: 11:43
Sample: 2017Q1 2018Q1
Periods included: 5
Cross-sections included: 15
Total panel (balanced) observations: 75
White cross-section standard errors & covariance (d.f. corrected)

Source: Eviews 10

A.4. Autocorrelation Test

Weighted Statistics	
Durbin-Watson Stat	0.468958

Source: Eviews 10

A.5. Multicollinearity Test

	SIZE	LIQ	CAPITAL	CR	INF	GDP
SIZE	1	0.0735	0.121	0.436	-0.004	-0.023
LIQ	0.0735	1	0.050	0.263	-0.000	-0.077
CAPITAL	0.121	0.050	1	0.418	-0.061	0.016
CR	0.436	0.263	0.418	1	0.018	0.023
INF	-0.004	-0.001	-0.061	0.018	1	0.386
GDP	-0.023	-0.077	0.0156	0.023	0.386	1

Source: Eviews 10

A.6. Multiple Regression Result

Dependent Variable: ROA
Method: Panel Least Squares
Date: 11/18/18 Time: 11:43
Sample: 2017Q1 2018Q1
Periods included: 5
Cross-sections included: 15
Total panel (balanced) observations: 75
White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.656479	0.639837	-10.40339	0.0000
SIZE	10.62454	0.630348	16.85503	0.0000
LIQ	-0.058920	0.006047	-9.742956	0.0000
CAPITAL	0.048912	0.010183	4.803486	0.0000
CR	0.135895	0.050363	2.698326	0.0088
INF	9.740613	0.969749	10.04447	0.0000
GDP	-2.029027	0.575329	-3.526725	0.0008

R-squared	0.737475	Mean dependent var	1.633012
Adjusted R-squared	0.714311	S.D. dependent var	0.678943
S.E. of regression	0.362894	Akaike info criterion	0.899277
Sum squared resid	8.955083	Schwarz criterion	1.115576
Log likelihood	-26.72289	Hannan-Quinn criter.	0.985643
F-statistic	31.83714	Durbin-Watson stat	0.468958
Prob(F-statistic)	0.000000		

Source: Eviews 10

A.7. F-Test Result

Weighted Statistics	
F-Statistic	31.83714
Prob (F-Statistic)	0.000000

Source: Eviews 10

A.8. Coefficient of Determination Result

Weighted Statistic	
R-squared	0.737475
Adjusted R-squared	0.714311

Source: Eviews 10