Determinant of Profitability: Evidence of Government Bank in Indonesia

K.M. Husni Thamrin, Mohamad Adam, Mukhlis Mukhlis, Anisa Melinda
Faculty of Economics, Universitas Sriwijaya, Palembang, Indonesia

Keywords: CAMEL, Profitability, Bank

Abstract: The purpose of this study was to analyze the effect of profitability determinant factors on state-owned banks in Indonesia. The sample in this study were four state-owned banks. This study uses secondary data obtained from the documentation in the form of annual financial statements of State-Owned Enterprises listed on the Indonesia Stock Exchange for the period 2007-2016. Data is quantitatively. Methodology using multiple linear regression analysis. Hypothesis testing that has been done using the t-test shows that the Capital Adequacy Ratio and Loan Deposit Ratio have a positive and insignificant effect on Return on Assets. Non-Performing Loans and Operational Income Operating income has a negative and significant effect on Return On Assets. Net Interest Margin has a positive and significant effect on Return on Assets.

1 INTRODUCTION

Banks are known as financial institutions that have a very important role for the economy in Indonesia. Based on the Republic of Indonesia Act No. 10 of 1998, the Bank is a business entity, where the bank must raise funds from the public in the form of credit and other forms in order to improve the standard of living of many people. The presence of banks in Indonesia has a very significant role. It happens because the need for capital and the storage of money by the community has become commonplace.

Banks operate more using funds from the public than using their capital from shareholders. The condition of financial performance is very influential on public trust in banking. Therefore, banks must always maintain and maintain the health of the bank, because if the condition of the bank's healthy financial performance will lead to public confidence in the bank and vice versa if the condition of the bank's financial performance decreases it will reduce public confidence in the bank itself. (Lin & Smith, 2007). This trust is needed to expedite the activities carried out by the bank. The smooth activities carried out by banks will be very supportive in achieving the welfare of stockholders and will increase the value of the company (Sukarno & Syaichu, 2006; Yuliani, Fuadah, & Thamrin, 2018).

The banking sector has an important role as a major driver of economic growth in Indonesia. Economic growth will affect the level of profitability of a company. Some research shows that profitability is the most important thing for the company because profitability is the result of some policies and decisions made by the company. A healthy and stable bank (1) is a need for an economy that wants to grow and develop well. If a bank can grow and develop well, the bank is able to compete (2) in collecting funds from the community and redistributing it in the form of credit and banks can maintain public trust (3) because in its operations banks use more funds from the public compared to their capital from the owner or shareholder.

There are still many rules that are violated in the banking world, one of which is the precautionary principle in providing credit which will affect the profitability of a bank. The occurrence of a monetary crisis in Indonesia since mid-1997 also had an impact on the banking sector (4). It is very important for us and the company to find out the negative impact on the profitability of the company, one of which is bad credit, and this negative impact is the impact of the weak quality of the banking system.

The bank's financial statements are one of the main sources of indicators as the basis for evaluating the bank's financial performance because the bank's financial statements show the overall financial condition of the bank. (S. Nanik, 2013). The role of

Thamrin, K., Adam, M., Mukhlis, . and Melinda, A.
Determinant of Profitability (Evidence of Government Bank in Indonesia).
DOI: 10.5220/0008442205330539
In *Proceedings of the 4th Sriwijaya Economics, Accounting, and Business Conference (SEABC 2018)*, pages 533-539
ISBN: 978-989-758-387-2

financial statements is very important in the decision-making process, especially decisions that will have an impact on companies in the coming period. Based on the bank's existing financial statements, some financial ratios calculated as the basis for research on corporate performance (Purbaningsih, (2013); Thamrin, Syamsurijal, Sulastri, & Isnurhadi, (2018).

The making of financial statements aims to fulfill the interests of various parties, in addition to the management and the owner of the company itself. The interested parties are shareholders, government, management, employees and the wider community. (Baert, 2009). Financial reports issued by banks will provide various benefits to various parties. Each party has its interests and objectives for the financial statements provided by the bank. The financial statements presented contain several different information needs. One important information in financial statements is information about profits. This information was important because profit shows how the company is performing during a period. The bank's financial ratio reflecting bank's performance, such as the Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), BOPO, Net Interest Margin (NIM) and Loan to Deposit Ratio (LDR).

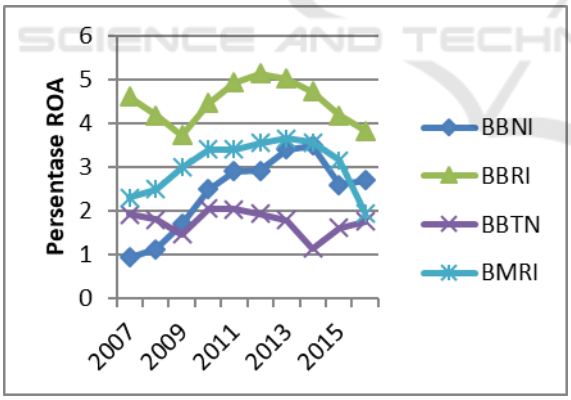

Figure 1: Movement of Return on Assets (ROA) of BUMN Banks in Indonesia Period 2007-2016

Based on graph 1.1, BRI banks in 2007 to 2016 have a decrease in ROA value each year. When compared to other banks, BRI has the highest ROA rate. Bank BNI in 2007 to 2016 had an average ROA value that increased every year, only experiencing a decline in 2015. Bank Mandiri also had an average ROA value that increased from 2007 to 2013 but decreased in 2013 to 2016. At Bank, BTN shows the average value of fluctuating ROA. The four banks have an average ROA value that exceeds the standard size of banks in Indonesia, which is 1.5%. Some banks have ROA below standard, namely BNI Bank in 2007 and 2008 with ROA values of 0.93% and 0.96% and Bank BTN in 2014 with an ROA value of 1.14%. It shows that there are factors that affect the size of the ROA of a bank.

Based on the description and some of the previous studies above, there is a research gap for the variables CAR, NPL, BOPO, NIM, and LDR studied. By these reasons, the researchers are interested in re-researching and analyzing how the research variables influence ROA. In this study, researchers analyzed by taking a sample of research on government banks in Indonesia in the period 2007-2016 with the title "Determinant Of Profitability: Evidence Of State-Owned Enterprise Bank In Indonesia."

2 LITERATURE REVIEW

2.1 Return On Assets

Return on Assets (ROA) as a proxy of financial performance. ROA shows the company's ability to use all assets owned to generate profit before tax. This ratio is important for management to evaluate the effectiveness and efficiency of company management in managing all company assets. The greater the ROA means, the more efficient use of company assets, or in other words, the same amount of assets can generate greater profits or vice versa.

The formula of ROA:

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

2.2 Capital Adequacy Ratio (CAR)

The CAR ratio is used to measure the adequacy of bank capital and shows the bank's ability to provide funds for business development needs and to accommodate the possible risk of losses caused by bank operations. The higher the CAR, the stronger the bank's ability to run the risk. If the high CAR value by Bank Indonesia regulations (at 8%) means that the bank can finance bank operations, and can make a large contribution to the bank's profitability (ROA) (Raharjo, Dwi Priyanto Agung; Setiaji, 2014).

$$CAR = \frac{Equity}{Risk\ Adjusted\ Capital} \times 100\%$$

2.3 Non-Performing Loan (NPL)

The NPL ratio is used to measure how bank management's ability to overcome and manage problem loans. The higher the NPL or, the greater the number of non-performing loans, the worse the quality of bank credit because it will cause losses, on the contrary, if the lower the NPL, the bank's profit or profitability (ROA) will increase (Ayuningrum, 2011). By Bank Indonesia Regulation No. 17/11 / PBI / 2015, Bank Indonesia sets the NPL ratio criteria below 5% so that the value of the bank remains good.

$$NPL = \frac{Non\ Performing\ Loan}{Total\ Loan} \times 100\%$$

2.4 Operating Expenditures and Operating Revenues (BOPO)

The BOPO ratio is used to measure the level of efficiency and the ability of a bank to control operational costs for its operating income. The smaller the value of BOPO means the more efficient the bank operates.

$$BOPO = \frac{Total\ Operation\ Cost}{Total\ Operation\ Income}$$

2.5 Net Interest Margin (NIM)

The NIM ratio is used to measure the bank's ability to generate income from interest, by looking at bank activities in channeling credit. Bank income comes from the difference in interest on loans disbursed with deposits received (Ayuningrum, 2011).

$$NIM = \frac{Net\ Interest\ Income}{Averange\ of\ Product\ Asset} \times 100\%$$

2.6 Loan to Deposit (LDR)

Loan to Deposit Ratio is a ratio to measure the composition of the amount of credit given compared to the amount of public funds and own capital used. Bank Indonesia Regulation No. 17/11 / PBI / 2015 states that the LDR ratio is between 78% and 92%. The higher the LDR the bank's profit will increase, this is due to the amount of loans channeled and it is assumed that the bank can channel its credit effectively.

$$LDR = \frac{Total\ Loan}{Total\ Deposit} \times 100\%$$

2.7 Framework

Based on the explanation above, a conceptual mindset can be prepared as described below:

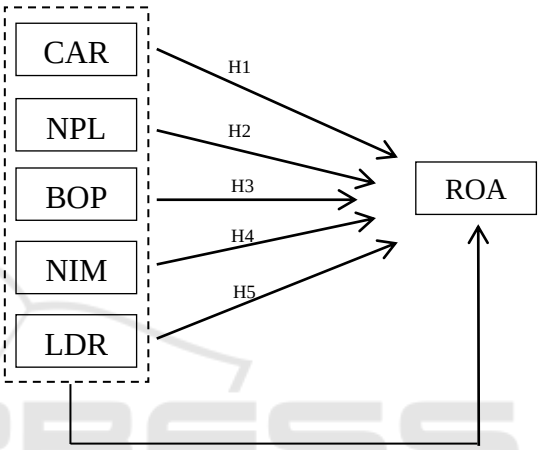

Figure 2: Framework

2.8 HYPOTHESIS

The hypothesis is a temporary conclusion that reflects the relationship between the variables being studied and formulates a hypothesis in the form of a flow that equipped with a qualitative explanation. The hypothesis is a statement that describes or predicts relationships between two or more variables (Sanusi, 2016). Based on the conceptual framework above, the writer formulates the following hypothesis:

H1 = CAR has a significant effect on ROA
H2 = NPL has a significant effect on ROA
H3 = BOPO has a significant effect on ROA
H4 = NIM has a significant effect on ROA
H5 = LDR has a significant effect on ROA

3 RESEARCH METHOD

3.1 Source Data

The data used in this study are secondary data in the form of bank financial statements which include

data on Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), BOPO, Net Interest Margin (NIM) and Loan To Deposit Ratio (LDR) and Return on Assets (ROA). The data used in this study obtained from the Indonesia Stock Exchange in 2007-2016

3.2 Analysis Method

The purpose of the analysis of this method is to interpret and draw a conclusion from the data collected. Researchers used SPSS version 23 software to process and analyze research data. Data analysis techniques used in this study are:

3.2.1 Normality Test

This normality test is conducted to see whether the research data is normal distribution or not. Research with a good regression model is research that has a normal or near normal data distribution (Ayuningrum, 2011).

3.2.2 Classical Assumption Test

This study uses secondary data. To get the accuracy of the model to be analyzed, it is necessary to test some of the classical assumption requirements that underlie the regression model. The classical assumption test divided into multicollinearity test, heteroscedasticity test, and autocorrelation test.

3.2.3 Multiple Regression Test

This study uses multiple regression models in analyzing data. This model is used to determine how much influence the independent variable on the dependent variable is the influence of working capital turnover, current ratio and debt ratio on return on assets. This test aims to determine whether the independent variables simultaneously or partially affect the dependent variable significantly.

4 RESULT

4.1 Regression Test

This study consists of dependent variables namely return on assets and independent variables which include Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Operating Expenditures and Operating Revenues (BOPO), Net Interest Margin (NIM), and Loan to Deposit (LDR). This test is used to create regression equations that are useful for drawing research conclusions. In this study regression test was used in its completion. The following is the result of the parameter coefficient significance test that has been carried out by the researcher:

4.2 Partial Test

Table 1: Partial T-Test Result

Model	*Unstandardized Coefficients* Beta	T	Sig.
Constant		5,952	0,000
CAR	0,018	0,850	0,401
NPL	-0,345	-5,988	0,000
BOPO	-0,028	-4,577	0,000
NIM	0,404	11,329	0,000
LDR	-0,010	-1,516	0,139

a. Dependent Variable: ROA

4.3 Effect of Capital Adequacy Ratio on Return on Assets

The t-test results obtained by the CAR regression coefficient of 0.018 indicating that if the CAR experiences a one-unit change assuming other variables remain, then the ROA will increase by 0.018. The significance level of the CAR variable has a value of 0.401 greater than the 0.05 level of significance (= 5%), so it can concluded that the CAR used in this study has no positive influence on the ROA of state-owned banks in Indonesia, so H1, rejected.

The CAR is insignificant on ROA; this is likely due to BI regulations which require each bank to maintain CAR with a minimum requirement of 8%, resulting in banks trying to maintain their CAR by BI regulations. Banks tend to invest their funds carefully and put more emphasis on bank survival so that CAR does not have much effect on bank profitability.

4.4 Effect of Non-Performing Loans on Return On Assets

The result of the t-test obtained by the NPL regression coefficient of -0.345 shows that if the NPL experiences a one-unit change assuming the other variables remain, then the ROA will decrease by 0.345. The level of significance, the NPL variable has a value of 0.000 smaller than the significance level of 0.05 (= 5%) it can concluded that the NPL used in this study has a significant effect on

ROA of state-owned banks in Indonesia, so H2 is accepted.

It shows that the more the number of non-performing loans makes banks do not dare to increase lending. Moreover, the total third-party funds received by banks are not optimal, thus causing bank liquidity to disrupted. NPL is a ratio that describes the comparison between non-performing loans and the total credit provided by the bank. The provision of credit to the public can create risks that can cause losses to the bank, one of which is non-performing loans.

4.5 Effect of Operating Expenditures and Operating Revenues on Return On Assets

T-test results obtained by the BOPO regression coefficient of -0.028 indicates that if BOPO experiences a one-unit change with the assumption that the other variables remain, then ROA will decrease by 0.028. The level of significance, BOPO variable has a value of 0.000 smaller than the significance level of 0.05 (= 5%), it can concluded that BOPO used in this study has a significant effect on ROA of state-owned banks in Indonesia, so that H3, accepted.

The high operating expenses (BOPO) will reduce bank income (ROA) because they have to spend more money to pay for the operating expenses. It is because the level of bank efficiency in running its operations affects the income generated by the bank. If operational activities are carried out efficiently (in this case the value of the BOPO ratio is low), then the income generated by the bank will increase, or the more efficient the operational performance of a bank, the greater the profit gained by the bank (Raharjo, Dwi Priyanto Agung; Setiaji, 2014)

4.6 Effect of Net Interest Margin on Return on Assets

T-test results obtained by the NIM regression coefficient of 0.404 indicates that if the NIM experiences a one-unit change assuming the other variables remain, then ROA will increase by 0.404. The level of significance, the NIM variable has a value of 0.000 smaller than the significance level of 0.05 (= 5%), it can concluded that the NIM used in this study has a significant effect on ROA of state-owned banks in Indonesia, so that H4 is accepted.

It explains that any increase in NIM will increase ROA. Every increase in net interest income, which is the difference between the total interest cost and total interest income, results in an increase in profit before tax, which in turn increases ROA. It means that the ability of the bank's management to generate net interest affects the level of bank income for its total assets.

4.7 Effect of Loan to Deposit Ratio on Return on Assets

The results of the t-test obtained by the LDR regression coefficient of -0.010 shows that if the LDR undergoes a one-unit change assuming the other variables remain, then the ROA will decrease by 0.010. The level of significance, the LDR variable has a value of 0.139 greater than the significance level of 0.05 (= 5%), so it can concluded that the LDR used in this study has no significant effect on ROA of state-owned banks in Indonesia, so H5, rejected.

The higher LDR, which means that lower liquidity causes low profitability. It is due to the presence of Non-Performing Loans which causes disbursed loans not to produce results, which in turn reduces profitability. Loan to deposit ratio (LDR) does not have a significant effect on profitability due to a lack of optimal credit distribution from the bank so that banks must be more aggressive in increasing their credit in order to increase profitability (Suyitno, 2017).

4.8 F-test Result

Table 2: F-test Result

Model	*Sig.*
Regression	0,000

a. Dependent Variable: ROA

b. Predictors: (Constant), CAR, NPL, BOPO, NIM, LDR

Based on the results of regression analysis it can be seen that the linear regression model is feasible to be used to explain the effect of independent variables on variables. It is significant value 0,000 smaller than the significance level of 0.05 (= 5%). Regression models with independent variables namely CAR, NPL, BOPO, NIM, and LDR can be used to predict the dependent variable, ROA.

4.9 Determinant Coefficient Result (R2)

R square explains how much variation Y is caused by X, from the calculation results obtained R2 value of 0.922% or 92.2% means that 93.2% ROA strongly influenced by the five independent variables CAR, NPL, BOPO, NIM, and LDR. Moreover, 7.8% is explained by other causes outside the model.

5 CONCLUSION

The Capital Adequacy Ratio has no positive influence and direction on Return on Assets on state-owned banks in Indonesia for the period 2007-2016. Non Performing Loans have a negative influence and direction on Return on Assets on state-owned banks in Indonesia for the period 2007-2016. Operational Costs Operating income has a negative influence on the return on assets of state-owned banks in Indonesia for the period 2007-2016. Net Interest Margin has a positive influence and direction on Return on Assets in state-owned banks in Indonesia for the period 2007-2016.

Loan Deposit Ratio has no positive influence and direction on Return on Assets in state-owned banks in Indonesia for the period 2007-2016. Multiple linear regression models are feasible to be used to measure the effect of Capital Adequacy Ratio, Non Performing Loans, Operational Income Operating Costs, Net Interest Margin, and Loan Deposit Ratio on Return on Assets in BUMN banks in Indonesia for the period 2007-2016.

5.1 Suggestions

Suggestions for research include the following.

1. BUMN companies are expected to anticipate factors that can affect the Capital Adequacy Ratio (CAR), Non Performing Loans (NPL), Operating Income Operating Costs (BOPO), Net Interest Margin (NIM), and Loan Deposit Ratio (LDR), it because become one of the reference criteria for financial health for banks. Banking companies are expected to pay attention to other factors that can affect the Return On Assets (ROA) outside the research variables in order to anticipate things that can affect the growth potential and prospects of the company in the future.
2. For further research using a longer period of observation. The addition of research samples with a wider observation period will provide a greater possibility of obtaining results that are close to actual conditions.
3. It is recommended to use other banking health measurement methods by Bank Indonesia regulations. In order to get the results of various studies on the health assessment of banks in Indonesia.

REFERENCES

Ayuningrum, A. P. (2011). Analisis Pengaruh CAR, NPL, BOPO, NIM, dan LDR Terhadap ROA (Studi pada Bank Umum Go Public yang Listed pada Bursa Efek Indonesia tahun 2005-2009). *Jurnal Ekonomi Manajemen Sumber Daya*.

Baert, L. (2009). Bank ownership , firm value and firm capital structure in Europe. In *Working Paper* (pp. 1–34). the European Commission (7th Framework Programme, Grant Agreement No. 217266).

Lin, C. M., & Smith, S. D. (2007). Hedging, financing and investment decisions: A simultaneous equations framework. *Federal Reserve Bank of Atlanta*, *42*(2), 191–209. https://doi.org/10.1111/j.1540-6288.2007.00167.x

Purbaningsih, Y. P. (2013). The Effect of Liquidity Risk and Non Performing Financing (NPF) Ratio to Commercial Sharia Bank Profitability in Indonesia. *Journal STIE Ekuitas Indonesia*, *73*. https://doi.org/10.7763/IPEDR.

Raharjo, Dwi Priyanto Agung; Setiaji, B. S. (2014). Pengaruh Rasio CAR, NPL, LDR, BOPO, Dan NIM Terhadap Kinerja Bank Umum di Indonesia. *Jurnal Ekonomi Manajemen Sumber Daya*, *15*, *No. 2*(DAYA SAING), 7–12.

S. Nanik. (2013). Analisis Pengaruh Tingkat Kesehatan Bank dan Faktor Fundamental Makro Ekonomi Terhadap Nilai Perusahaan Pada Perusahaan Perbankan Yang Tercatat Di Bursa Efek Indonesia. *Universitas Merdeka Malang*, 1–27.

Sanusi, A. (2016). *Metodologi Penelitian Bisnis*. Jakarta: Salemba Empat.

Sukarno, K. W., & Syaichu, M. (2006). Analisis Faktor-Faktor Yang Mempengaruhi Kinerja Bank Umum Di Indonesia. *Jurnal Studi Manajemen & Organisasi*, *3*(2003), 46–58.

Suyitno, B. Y. (2017). Pengaruh NPL dan LDR melalui Profitabilitas sebagai Variabel Intervening terhadap Nilai Perusahaan. *Jurnal Ilmu Dan Riset Manajemen*, *6*(2).

Thamrin, K. M. H., Syamsurijal, Sulastri, & Isnurhadi. (2018). Dynamic Model of Firm Value : Evidence from Indonesian Manufacturing Companies. *Sriwijaya International Journal of Dynamic Economics and Business (SIJDEB)*, *2*(2), 151–164. https://doi.org/https://doi.org/10.29259/sijdeb.v2i2.151-164

Yuliani, Fuadah, L., & Thamrin, K. M. H. (2018). THe Mediation Effect of Financing Mix on Invesment Opportunity Set and Profitability Relationship. *Ekspektra : Jurnal Bisnis Dan Manajemen*, *2*(1), 56–67. https://doi.org/http://dx.doi.org/10.25139/ekt.v2i1.740