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Analysis of the Effect of LDR growth, Credit Interest Rates, and Bank Efficiency on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk.

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Abstract: *This study aims to obtain empirical evidence of the effect of Loan to Deposit Ratio - Growth, Credit Interest Rate, Operating Costs on Operating Income (BOPO) on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk. In this study, the observation period was used starting from 2006 - 2017. The type of data used is secondary data obtained from quarterly financial statements of PT. Bank Tabungan Negara (Persero) Tbk. To test the hypothesis, a multiple linear regression model is used by looking at the value of the t-test statistic.*

Based on the results of hypothesis testing it was found that LDR growth partially had a significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk., While credit interest rates and BOPO have no significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk.

Key Words: *Non Performing Loans, LDR Growth, Loan Interest Rates, BOPO.*

1. INTRODUCTION:

The role of banks greatly influences the economic activities of a country. The progress of a bank becomes a measure of the country's progress, where the more advanced a country means the greater the role of banks in controlling the country's economy. According to Anwar Nasution in Tarmidi (1999), the weakness of the national banking system is the root of the crisis. Many community funds that enter the banking system are managed in a non-prudent manner, which is channeled to the group's own activities and to projects of development of real estate and condomium so that it exceeds the purchasing power of the people, then stalls and there is no return.

Banking has an important role in the smooth running of the economy and the achievement of national development goals. The bank works on the basis of trust in the community which in its operational system funds are collected from the community in the form of deposits that are the source of bank funds. Furthermore, funds are channeled back to the community in the form of loans or loans. In this case, banks should pay attention to the quality of credit by implementing a credit granting policy that contains elements of the principle of prudence and uses 5C analysis (Kasmir, 2016).

Business competition in the banking world that appears lately is competition in lending, especially in housing loan financing. Bank BTN is one of the BUMNs that has a business focus on housing finance, both subsidized and non-subsidized. The business focus has made Bank BTN play an important role in helping the government to improve the living standards of the Indonesian people, namely by providing housing loans that offer relatively low interest rates.

Every loan is not separated from credit risk in the future. Many factors cause credit to be problematic such as internal bank factors, internal customer factors, external factors, business failure factors and management incapacity factors. When credit is found to be problematic, the likelihood that the credit will be repaid by the debtor is considered much lower. However, if the debtor begins to make payments again for the defaulted credit, it can provide a return for the bank. The income received will increase profits which have an impact on improving the image of banks in the community.

At the time of lending, the bank must also be more careful to take into account the debtor's ability to pay for long-term installments. Changes in loan interest rates that have increased will have an impact on the difficulty of returning liabilities by the debtor. The more debtors are in arrears, the greater the costs the bank has to pay for credit settlement.

For this reason, banks should control the operational costs that will be incurred by management in high-risk lending activities. High-risk loans can cause the possibility of low revenues from bank operating income, so that it automatically has an impact on increasing NPL. Thus, Bank BTN needs to make an appropriate and effective credit policy to minimize the impact of non-performing loans. Not only that, there is also a need for policies in terms of handling non-performing loans to avoid major losses to banks.

2. LITERATURE REVIEW:

Non Performing Loan (NPL)

In general, non-performing loans are loans that contain high risk and do not meet the quality standards set by the bank (Arthesa et al., 2006). Risks that arise allow losses to the bank due to the non-repayment of credit by the debtor. Non Performing Loans (NPL) are financial ratios related to credit risk. High bank NPLs are triggered by more problem loans than the amount of loans disbursed. This has an impact on the amount of costs incurred by the bank, both the provision of productive assets and other costs as well as disrupting the performance of the bank.

According to the Bank Indonesia Circular Letter, the ratio of Non Performing Loans (NPL) is obtained by comparing the number of non-performing loans with collectibility 3, 4 and 5 (substandard, doubtful and loss) on total loans issued by banks. The amount set by Bank Indonesia regarding the ratio of Non Performing Loans (NPL) is a maximum of 5%. If the bank has an NPL value of more than 5%, it will affect the bank's soundness and be put in the status of "In Intensive Supervision".

Loan to Deposit Ratio (LDR)

Dendawijaya (2009) explains that granting credit to debtors can help banks to offset their obligations to immediately meet the demands of customers who plan to withdraw funds that have been rotated by banks in the form of credit. In this case, the indicator of lending can be seen from the percentage of Loan to Deposit Ratio (LDR), which compares the amount of credit given with the amount of public funds and own capital used (Kasmir, 2016). The higher the LDR ratio, the higher the company's profit, with the assumption that banks are able to channel effective and quality loans so that the possibility of problem loans is getting smaller.

Bank Indonesia has set a safe limit for banking LDR at around 80% with a standard tolerance ranging between 80% and 100%. The loan to deposit ratio can also be used to assess a bank's management strategy. Conservative bank management usually tends to have a relatively low LDR value, while aggressive bank management has a high LDR value or exceeds the tolerance limit.

Credit Interest Rate

According to Sunariyah (2004), interest rates are the prices of loans. Interest rates are expressed as a percentage of principal per unit of time. Another definition, credit interest rates are the interest given by the bank to the debtor or the price the debtor must pay to the bank (Kasmir, 2008). Bank interest is interpreted as a form of remuneration provided by banks based on conventional principles to debtors who have purchased their products. Through optimal interest rates, banks are expected to increase profits for the continuity of the company's future.

The related banks should understand the calculation of credit interest before recording credit transactions. With the calculation of the loan interest can be sorted between installments of principal and installments of interest from the time of realization of credit until the credit is due. The factors that influence the determination of the size of the loan interest rate in Suyatno et al. (2003) include credit period, quality of credit guarantees, reputation of the company to be disbursed, products with high competitiveness, good relations with the bank and the existence of third party guarantees that can reduce the incidence of credit risk.

Bank Efficiency

Bank operational efficiency is measured by comparing total operational costs with total operating income or often called BOPO. BOPO ratio is a ratio used to measure the ability of bank management to control operational costs against operating income (Dendawijaya, 2009). The lower the level of the ratio of Operational Costs to Operating Income (BOPO) means the better the performance of the bank's management, because it is more efficient in using existing resources in the company (Asri, 2019).

According to Bank Indonesia regulations, the best standard for a bank's BOPO ratio is 92%. A good operating expense should be smaller than operating income, because the bank will be able to cover operating expenses with the operating income it receives. Thus, the BOPO ratio will be even smaller, this means that the operational costs incurred by the bank are more efficient so that the possibility of banks in problematic conditions is getting smaller (Pandia, 2012).

Hypothesis

Based on the basis of the theory and study above, the researcher proposes a hypothesis that will be proven, among others:

- H1 : LDR growth has a positive and significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk.

- H2 : Credit interest rates have a positive and significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk.
- H3 : Bank efficiency has a positive and significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk.

3. METHOD:

The current research is quantitative research with hypothesis testing. The purpose of the research is to test hypotheses between the variables of LDR growth, credit interest rates and bank efficiency on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk. The research sample comes from Bank BTN quarterly financial statements since the period 2006 to 2017, which amounted to 48 samples.

Multiple Linear Regression

Multiple linear regression analysis is used to determine the extent of the influence of LDR growth, credit interest rates and bank efficiency that is proxied by Operating Costs on Operating Income (BOPO) on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk., Using the multiple linear regression formula as follows:

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

where;

Y	:	Non Performing Loans (NPL)
α	:	Constant numbers
X1	:	LDR Growth
X2	:	Credit Interest Rate
X3	:	Operating Costs for Operating Income (BOPO)
e	:	Residual error
β1 β2 β3	:	Regression coefficient

Coefficient of Determination (R^2)

To determine the magnitude of the influence of the independent variables, namely the growth of LDR, interest rates on credit and bank efficiency (BOPO) on the dependent variable in this case Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk., Then the analysis of the coefficient of determination (R^2) is used. The value of R^2 which approaches the number one means that the independent variables used in this study provide almost all the information needed to predict the dependent variable (Sekaran, 2006).

4. ANALYSIS:

Multiple Linear Regression

Based on the results of the analysis of multiple linear regression models, the regression equation is obtained as follows:

NPL = -0,012 + 0.030 LDR Growth + 0.095 Interest Rate + 0.035 BOPO + e

In the equation, it can be seen that the resulting constant value is -0.012, the results obtained show that when the LDR growth, credit interest rate and bank efficiency (BOPO) are considered constant, the dependent variable changes is equal to -0.012, which means Non Performing Loans owned by PT. Bank Tabungan Negara (Persero) Tbk. will decrease by 0.012 units.

Determination Coefficient Analysis

Based on the results of testing the coefficient of determination, the Adjusted R Square value of 0.162 is obtained. This means the magnitude of the influence of independent variables (LDR Growth, Credit Interest Rate and BOPO) on the dependent variable (NPL) which can be explained by this regression model of 16.2%, while the remaining 83.8% is influenced by other variables not used in this research model.

Hypothesis testing

To obtain empirical evidence of the effect of LDR growth, credit interest rates and bank efficiency on an individual basis, t-statistical testing was conducted. The significance level used is 10%, because at 5% significance the independent variable does not have a significant relationship with the dependent variable.

Based on the results of the test, the first hypothesis obtained a regression coefficient value of LDR Growth which is positive, namely 1,787. The probability value or Sig is known. of the LDR Growth variable is 0.081. Because the probability value is smaller than the significance level of 0.10, it can be concluded that LDR growth has a significant positive effect on Non Performing Loans (H1 accepted).

The second hypothesis using the loan interest rate variable is obtained by a positive credit rate regression coefficient, which is 1,554 and the probability value or Sig. amounting to 0.127. Because the probability value is greater than the significance level of 0.10, it can be concluded that the Credit Interest Rate has a positive but not significant effect on the Non Performing Loan (H2 is rejected).

The results of testing the third hypothesis show that the regression coefficient of the bank efficiency level calculated with BOPO is positive, namely 0.945 and the probability value or Sig. amounting to 0.350. Because the probability value is above the significance level of 0.10, it is concluded that the Bank Efficiency Level (BOPO) has a positive but not significant effect on the Non Performing Loan (H3 is rejected).

LDR Growth has a Significant Positive Effect on Non Performing Loans (NPL)

The test results show the coefficient of the LDR variable Growth significantly affects the Non Performing Loan (NPL) and has a sign that is consistent with the initial positive hypothesis. This is confirmed by the results of previous studies conducted by Hadianto et al. (2013) and Rosita (2016) state that the LDR is an indicator that shows the level of credit carried out by banks to measure current or not as an intermediary function of banks. If the bank has a high LDR, then the bank will have the risk of high uncollectible loans that will require a loan and the bank will add to the loss. Efforts that can be made by banks to minimize problem loans are by loosening credit requirements and upholding the principle of prudence when lending. In addition, banks that support this strategy can also increase NPL credit as well as insuring subsidized credit to insurance institutions as a form of credit rescue protection in the event of a problem in the future.

Credit Interest Rates has a Significant Positive Effect on Non Performing Loans (NPL)

Based on the results of the statistical data, it can be seen that the interest rate variable has a positive but not significant effect on Bank BTN bad credit for the period 2006 - 2017. In line with the research of Hadianto et al. (2013) and Dewi et al. (2015), the positive direction obtained means an increase in lending rates will increase the ratio of Non Performing Loans (NPL), where high lending rates are a scourge that can harm debtors. Interest rates that increase after the credit agreement (floating rate reference) have the potential to worsen the quality of credit that has been channeled by the bank, this is because the interest expense borne by the debtor is increasing in number and the debtor is increasingly difficult to pay his debt obligations every month.

Research by Curak et al. (2013) show the results that lower economic growth, higher inflation, and higher interest rates are associated with higher non-performing loans as well. This is different from the results of the current study which shows that the variable coefficient of Bank BTN loan interest rates does not have a significant effect on the risk of bad credit. This is due to the continued high desire of the community to apply for credit to Bank BTN and the bank continues to channel credit to the public even with high interest rates and credit risk. Increased lending rates allow deposit interest rates to be at a high range as well, so many people save their funds in banks and this helps banks to cover high credit risks.

In addition, Bank BTN has also mitigated risks and carried out a number of business strategies to reduce the rate of NPL, one of which was more selective in lending with a tightened risk profile assessment. As a result, the trend of high and low interest rates on specialist bank loans (KPR) will not have a significant effect on future credit risk, namely Non Performing Loans (NPL).

Bank Efficiency has a Significant Positive Effect on Non Performing Loans (NPL)

The test results of the variables show a sign that is in accordance with the initial hypothesis that is positive, but the results of the t-test indicate no significant effect of bank efficiency on Non Performing Loans (NPL). The positive direction obtained is in line with the research of Riyadi et al. (2014) and Kinanti et al. (2017) which shows that the Operational Cost variable on high Operating Income will be followed by an increase in bank NPL, meaning that a high BOPO value indicates a lower level of bank efficiency (inefficiency). Bank inefficiencies are often caused by poor management quality, so that monitoring and control of use is not carried out properly, and has an impact on the poor credit management process and leads to a high level of NPL (Panggabean, 2012).

However, the operational costs incurred by banks are not necessarily just for the credit process. However, it is also used to meet losses related to operational risk and other expenses such as the occurrence of irregularities, so that the bank must be responsible for bearing all these losses. Thus, Operational Costs to Operating Income does not have a significant effect on Non Performing Loans (NPL).

5. CONCLUSION

Based on the research that has been done, the results show that the LDR growth variable partially has a significant positive effect on Non Performing Loans (NPL), while the credit interest rate and bank efficiency level

(BOPO) have no significant effect on Non Performing Loans (NPL) at PT. Bank Tabungan Negara (Persero) Tbk. Taken together, the three independent variables affect the bank's Non Performing Loan (NPL).

6. SUGGESTION:

1. In increasing credit growth, Banks must be more selective and cling to the principle of prudence in lending by not loosening credit requirements, in order to avoid the occurrence of non-performing loans and obtain a low level of NPL in the future.
2. In order to further increase the portion of low-cost funds to reduce interest costs and other operating expenses, so that it has an impact on increasing bank efficiency. In addition, service quality is also one of the main factors so that banks can build and maintain customer loyalty without the lure of high interest.

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