ISSN 2809-8501 (Online)
UTSAHA (Journal of Entrepreneurship)
Vol 1. Issue 2, April 2022
https://journal.jfpublisher.com/index.php/joe

BOPO Analysis, Non-Performing Loan (NPL), and Loan to Deposit Ratio (LDR) to Profitability (Case Study at PT Bank Maluku, Ambon)

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ABSTRACT

Bank is the financial institution with the main business in collecting public money and funds it back in form of credit. Also, provide services in payment traffic and money circulation. Therefore, in doing its daily business activities, banks need to have money in order to provide the credit. In providing credit to customers, Bank management implements various policies in lending process. This study aims to determine and analyze whether BOPO, Non Performing Loan (NPL), and Loan to Deposit Ratio (LDR) have a significant effect on the profitability of PT. Maluku–Malut Bank in Ambon City or not with the research data from 2015–2019 periods. The analytical method used is multiple linear regressions using t-test to examine the hypothesis. Based on the research, the results show that: BOPO has a positive effect on profitability; NPL has a negative effect on profitability; furthermore, LDR has a negative effect on the profitability of PT. Maluku–Malut Bank in Ambon City.

Keywords: *BOPO, NPL, LDR, Profitability.*

INTRODUCTION

PT. Bank Maluku–Malut as a financial institution that collects public funds and also empowers community through providing the credit. In providing credit to customers, Bank Maluku–Malut management implement various policies in lending process, which sometimes had several problems when customers returning their loans.

Therefore, PT. Bank Maluku–Malut needs to pay attention in managing its products efficiently and in doing the business carefully for generating high profitability by using BOPO to measure its efficiency. The operating Expenses and Operating Income (BOPO) is a comparison between operational costs and operating income in measuring the efficiency level of a bank in its operations. The smaller BOPO ratio means the more efficient operational costs incurred by bank concerned.

Credit management through supervision and guidance is very much needed by the bank for achieving the right targets and result and also able to minimize the unwanted things. The purpose of credit coaching is to ensure that the implementation of credit disbursement is in accordance with the stipulated requirements, the use of credit is in accordance with the credit plan or purpose, the customers' surplus and cash flow is actually used to repay the loan, and to follow up the customers' business development and help to solve the problem and to secure the credit collateral in avoiding thedecline in value. The failure to develop credit will result in non-performing loans or a decrease in the NPL (Non-Performing Loan) ratio.

The NPL (Non-Performing Loan) is an any loans in wich interest and principal payments are more than 90 days overdue or more than 90 days' worth of interest has been refinanced, capitalized, or delayed by agreement; or payment are less than 90 days overdue but are no longer anticipated (Maseke & Swartz, 2021). The higher this ratio, the worse the bank credit quality and it cause bigger number of non-performing which ultimately the reason of losses. On the contrary, when the NPL is lower, the bank profitability will increase.

When the amount of credit disbursed decreases, it can indirectly affect the bank's liquidity which is indicated by the LDR (Loan to Deposit Ratio) ratio. Loan Deposit Ratio states how far the ability of bank to repay funds withdrawal done by depositor by relying on the credit given as a source of liquidity. LDR has a function to measure bank liquidity by dividing the amount of credit granted by banks to third parties. A high LDR ratio indicates the ability of banks to manage low liquidity and low level of health, which can lead to the possibility of banks experiencing financial distress increased. According to the perspective of signal theory proposes about how banks should signal to users of financial statements, with high corporate liquidity then the company gives good signal to the external party because the bank in good condition, thus, it minimize the state of financial distress (Sarwo Kuncoro, 2017)

Profitability is the company's ability to earn the profit during certain period (Munawir, 2010) Profitability in banking is very important for owners, depositors, government and society. Therefore, banks need to maintain its profitability in order to remain stable or increase. Profitability describes a measure of the efficiency level of bank company management (Kasmir, 2012).

The following is a table of the development of BOPO, NPL and LDR of PT. Bank Maluku–Malut for 5 years.

Table 1. The development of BOPO, NPL, and LDR at PT. Bank Maluku–Malut during 2015–2019 periods.

No	**Year**	**BOPO**	***Non Performing Loan* (NPL)**	***Loan to Deposit Ratio* (LDR)**
1	2015	73,45%	2,30%	63,70%
2	2016	78,84%	0,54%	63,82%
3	2017	72,95%	0,48%	64,13%
4	2018	71,05%	0,28%	71,50%
5	2019	66,88%	0,42%	72,86%

Source: Annual Report of PT. Bank Maluku–Malut

Based on table 1 above, it shows that operating costs and operating income (BOPO) fluctuate which tends to decrease, where in 2015 the BOPO was 73.45%, in 2016 the BOPO was 78.84%, and in 2017 the BOPO raised to 71.05%, in 2018 the BOPO increased to 71.05%, then in 2019 it inflated to 66.88%. This is concluded as efficient since the maximum value of BOPO provision from Bank Indonesia is 90%.

Non-Performing Loans (NPLs) fluctuated with downward, where in 2015 the NPL generated was 2.30%, and from 2016 to 2018 with an average of 0.43, in 2019 it increased to 0, 42%. Based on Bank Indonesia regulations, the maximum allowable NPL is 5%. The higher the NPL level, it indicates that the bank is unable to manage its credit which will cause the bank's losses.

While the Loan to Deposit Ratio (LDR) of PT. Bank Maluku–Malut increased from 2015 to 2019, where the LDR in 2015 was 63.70%, in 2016 it escalated to 63.82%, in 2017 to 2019 it inflated to 64.13%, 71.50%, and 72.86% respectively. Based on Bank Indonesia Regulation No.15/7/PBI/2013 the LDR standard is 78% – 92%. When the LDR ratio is below 78%, it showed that bank cannot properly provide all the raised funds. When the bank's LDR ratio reaches more than 92%, the total credit disbursed by bank has exceeded the funds raised.

The size of bank LDR will affect the profitability of the bank. Therefore, based on table 1, it can conclude that PT. Bank Maluku–Malut has not been able to properly distribute all the collected funds.

To increase its profitability, PT. Bank Maluku–Malut needs to manage the liquidity properly and correctly while paying attention to credit quality that provided to customers. Loan to Deposit Ratio (LDR) is a ratio used to measure the bank liquidity risk.

Many previous studies have been conducted, where one of it is research by, (Luh Eprima Dewi ., Nyoman Trisna Herawati, SE.AK, M.Pd. ., Ni Luh Gede Erni Sulindawati, SE. Ak, 2015) partially shows that the Loan To Deposit Ratio (LDR) has a significant positive effect on Profitability. Meanwhile, the research from (Pinasti & Mustikawati, 2018) states that the Loan to Deposit Ratio (LDR) has a negative but not significant effect on profitability. This research will examine the effect of BOPO, NPL, and LDR on PT. Bank Maluku-Malut Ambon profitability.

Thus the ratio of BOPO, NPL and LDR serves to assess the efficiency of PT. Bank Maluku–Malut Ambon in managing its business activities. Based on that, a careful, effective and accurate management is urgently needed. Through the description of the background above, there are still has some differences in bank ratios measurement. In this research, the author wants to conduct in-depth testing regarding bank ratios "Analysis of BOPO, Non Performing Loan (NPL), and Loan to Deposit Ratio (LDR) to increase Profitability (case study at PT. Bank Maluku-Malut in Ambon".

The research problem in this research is how the effect of BOPO, NPL and LDR partially on the profitability of PT. Bank Maluku–Malut Ambon Branch. The purpose of this research is to analyze and determine the partial effect of BOPO, NPL and LDR on the profitability of PT. Bank Maluku–Malut Ambon.

LITERATURE REVIEW

Bank

Bank is a type of financial institution that conducted various services, such as providing loans, circulating and controlling the currency, a place to keep valuable objects, and financing the companies' business. (A., 2014) meanwhile, according to According to (Indonesia, 2012), a bank is an institution that acts as a financial intermediary between parties who have excess funds and those who need funds, as well as an institution to facilitate the payment traffic.

BOPO

BOPO ratio is the ratio between operating costs and operating income. The BOPO ratio is used to measure the efficiency level and bank ability in its operations. (Luh Eprima Dewi ., Nyoman Trisna Herawati, SE.AK, M.Pd. ., Ni Luh Gede Erni Sulindawati, SE. Ak, 2015) The bigger the BOPO value, the lower of banks financial performance and vice versa, when the BOPO is getting smaller, it can be seen that the financial performance of banks is increasing or improving. The formula for the BOPO ratio is:

$$\text{BOPO} = \frac{Operating\ Expenses}{Operating\ Income}\ x\ 100\ \%$$

Bank Operational Expenses, consisting of: (a) interest costs, namely: interest costs for funds owned by bank; (b) foreign exchange costs, or costs coming from foreign exchange losses; (c) Overhead costs are costs incurred by banks that do not have benefits for the future. The types of costs include costs related to employees, depreciation costs for fixed assets, office operational costs and costs incurred or related to the financial reporting period; (d) Employee Costs, called all costs incurred by bank to finance its employees; (e) Depreciation Cost, which is the allocation of costs charged to the income statement according to criteria or based on time; (f) Non-operating costs is the costs that are not related to banks' main activities, for example losses from the sale of fixed assets of extraordinary expenses, or costs that occur abnormally or are not related to company activities and do not occur frequently or are not repeated in the future; (h) Past Corrections, when there has been a miscalculation, incorrect accounting principle error, failure to record a transaction; and (i) Income Tax Income Bank operations consist of: (a) Interest income, which is interest income from loans and investments made by banks: (b) Fees and Commissions, or bank income that will be received and recognized as income when the loan is approved by bank; (c) Income from Foreign Exchange Transactions, is income derived from foreign exchange differences; (d) Other Operating Income, called other income and is a direct result of other activities which are bank operational activities that are not included in the income account above, for example dividends received from stock; (e) Non-Operational Income, is various types of income originating from activities outside the bank's business; (f) Extraordinary Income, is profits received suddenly or never predicted before; (g) Past Corrections, namely corrections to errors in the financial statements of previous period resulting from miscalculations or incorrect application of accounting principles, failure to record a transaction and errors of mathematical nature; (h) The cumulative effect of changes in accounting principles is the difference between the amount of retained earnings at the beginning of the period of change and the amount of retained earnings that would have been reported when the new accounting principles had been applied for affected entire period.

Non Performing Loan (NPL)

NPL is one of health indicator of the bank's asset quality. These indicators are basic financial ratios and can provide the assessment information on capital conditions, profitability, credit risk, market risk and liquidation. NPL is also known as non-performing loans which will have an impact on reducing bank capital. In short, the formula for the NPL ratio is:

$$\text{NPL} = \frac{Total\ Non\text{-}performing\ Loans}{Total\ Credits\ Granted}\ x\ 100\ \%$$

The factors for the occurrence of NPLs are: (1) Debtor's willingness or intention, or debtor's ability to pay off principal and loan interest; (2) Government and Bank Indonesia policies, are: policies that can affect the high and low banks' NPL, for example the government's policy on rising fuel prices which causes debtors to have difficulty paying debts to banks. Likewise, the BI rate regulation will cause credit interest rates to also increase; (3) Economic conditions, for example: (a) Inflation is an overall and continuous increase in prices. High inflation can cause debtors' ability to pay off their debts to decrease; (b) Rupiah exchange rate, which affects the debtors' activities which are not only national but also international and require the rupiah exchange rate to conduct the transactions.

To minimize the conditions faced by debtors and maximize the efficiency and profitability at the same time, the banks must create a good management system for various aspects and involved parties.

Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio (LDR) is the ratio between the amount of funds distributed to public (credit) and the amount of public funds and own capital used. This ratio describes the ability of banks to repay depositors withdrawals by relying on loans as a source of liquidity. The higher this ratio, it means the lower of bank's liquidity ability. The LDR formula is as follows:

$$\text{LDR} = \frac{Total\ Credits\ Granted}{Total\ Third\ Party\ Funds + Paid\text{-}in\ Capital + Retained\ Earnings}\ x\ 100\ \%$$

Profitability

According to (Purwanto et al., 2020) Profitability is the company's ability to earn profits in relation to sales, total assets and own capital. High profitability of the company will increase the competitiveness between companies. The companies that get the high level of profit will open new lines or branches and increase its investment or open new investments related to their main company.

The profitability calculation can be measured by using ROA (Return On Assets) ratio approach, which is a ratio that measures management's ability to manage the company's productive assets to achieve the maximum profit, where the bigger the percentage indicated by ROA ratio of a bank, will indicate the more optimal in increasing the bank productivity. According to bank Indonesia regulations, the minimum of ROA requirement is 1.5 for healthy profitability. In short, the ROA ratio formula is as follows:

$$\text{ROA} = \frac{Profit\ After\ Tax\ (EAT)}{Total\ assets}\ x\ 100\ \%$$

The research conducted by (Luh Eprima Dewi ., Nyoman Trisna Herawati, SE.AK, M.Pd. ., Ni Luh Gede Erni Sulindawati, SE. Ak, 2015) states: (1) that Net Interest Margin (NIM) has a significant positive effect on ROA partially. The bigger the bank's NIM, the bigger the Return on Assets obtained by bank; (2) it can be seen that Operational Cost/Operational Income (BOPO) has a significant negative effect on ROA partially. The results of this research indicate when BOPO increases, which means that the efficiency is decreases, the Return on Assets obtained by bank will decrease; (3) it can be seen that the Loan to Deposit Ratio (LDR) has a significant positive effect on ROA partially. The results of this research indicate when the bank's ability to transfer the credit funds to third party is high, the higher the credit provided by bank and it will increase the bank's profit, in other words an increase in LDR will increase ROA, and the bank's financial performance will get better with the assumption that the bank is able to conduct the credit effectively, then the number of bad loans will be small; (4) Partially, it can be seen that Non-Performing Loans (NPL) and Good Corporate Governance (GCG) have a significant negative effect on ROA. The low NPL can indicate that the bank's financial performance is getting better; (5) it can be seen that Net Interest Margin (NIM), BOPO, LDR, and NPL have a significant effect on ROA simultaneously. This means that management able to pay attention to the financial ratios of NIM, BOPO, LDR, and NPL with the aim of improving bank's financial performance for become in healthy bank category. By that, the bank is able to attract public and investors to conduct the banking transactions and invest in it.

Based on previous research and the phenomena faced by PT. Bank Maluku–Malut Ambon Branch, it can be hypothesized as follows: (1) BOPO has a positive effect on the profitability of PT. Bank Maluku–Malut Ambon City; (2) NPL has a negative effect on the profitability of PT. Bank Maluku–Malut Ambon City; (3)

Liquidity Ratio (LDR) has a positive effect on the profitability of PT. Bank Maluku–Malut, Ambon.

RESEARCH METHODOLOGY

The type of research used is quantitative research. a quantitative research method deals with quantifying and analysis variables in order to get results. It involves the utilization and analysis of numerical data using specific statistical techniques to answer questions like who, how much, what, where, when, how many, and how (Apuke, 2017). Furthermore, the researcher tried to find the relationship and influence between one variable and another in the 5-year observation period (2015–2019). The specified population and sample are financial statements in the form of balance sheets and income statements at PT. Bank Maluku–Malut from 2015–2019 as many as 60 samples.

The analytical techniques used in this research are:

(1) Ratio Analysis, including:

a. BOPO

$$\text{BOPO} = \frac{Operating\ Expenses}{Operating\ Income}\ x\ 100\ \%$$

b. *Non Performing Loan* (NPL)

$$\text{NPL} = \frac{Total\ Non\text{-}performing\ Loans}{Total\ Credits\ Granted}\ x\ 100\ \%$$

c. *Loan to Deposit Ratio* (LDR)

$$\text{LDR} = \frac{Total\ Credits\ Granted}{Total\ TPF + Paid\text{-}in\ Capital + Retained\ Earnings}\ x\ 100\ \%$$

d. *Return On Asset* (ROA)

$$\text{ROA} = \frac{Profit\ After\ Tax\ (EAT)}{Total\ assets}\ x\ 100\ \%$$

(2) Statistical analysis, including:

a. Classic assumption test

- Normality test, this test aims to examine whether in the regression model, the confounding or residual variables have a normal distribution or not. As it is known the t and F tests assume that the residual value follows a normal distribution. The residual is normally distributed when it has a significance value > 0.05 (Imam Ghozali, 2011: 160–165).
- Heteroscedasticity test, this test is aims to examine whether there is an inequality in model regression of variance from the residuals of one observation to another observation or not. There is no heteroscedasticity

when there is no clear pattern and the points are spread above and below the number 0 on the Y axis (Imam Ghozali, 2011: 139–143).

- Autocorrelation test, this test is aims to examine whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous) in the linear regression model or not. When there is a correlation, it is called an autocorrelation problem (Imam Ghozali, 2011: 110).

b. Hypothesis testing

- Partial Test (t-test) is a test to find out how far the influence of the independent variable (X) on the dependent variable (Y) partially. Hypothesis testing will be examined using a significance level of 0.05 (α = 5%) or a confidence level of 0.95.

  The hypothesis is formulated as follows:

$$\text{Ho: bi} = 0$$
$$\text{HA: bi} \neq$$

The provisions in this test as follows:
1) When the significance level is 5%, Ho is rejected and Ha is accepted
2) When the significance level is 5%, Ho is accepted and Ha is rejected

c. Coefficient of determination test (R2)

This test is measures how far the model's ability to explain the variation of dependent variable. The value of coefficient of determination is between zero and one. The small value of R2 means that the ability of independent variable in explaining the variation of dependent variable is very limited. The value which close to one means that the independent variable provides almost all the information needed to predict the variation of dependent variable (Imam Ghozali, 2011: 97).

d. Multiple Linear Regression Analysis

Multiple linear regression analysis is an analysis to measure the relationship between two or more independent variables linearly (X1, X2, …. Xn) and the dependent variable (Y). This analysis is to determine the direction relationship between independent variable and dependent variable whether each variable independent is positively or negatively related. This analysis also able to predict the value of dependent variable is increases or decreases. The multiple linear regression equation is as follows:

$$Y = \alpha + \beta 1.X1 + \beta 2.X2 + \beta 3.X3$$

Description:
Y = Profitability
α = Constant
$\beta 1, \beta 2, \beta 3$ = Independent variable regression coefficient
X1 = BOPO
X2 = NPL
X3 = LDR

RESULT AND DISCUSSION

Result

PT. Bank Maluku and North Maluku Regional Development Bank (Perseroan) was established on October 25th, 1961 under PT. Maluku Regional Development Bank, based on the Deed of Establishment of PT. Maluku Regional Development Bank No. 3 dated October 25, 1961 as amended by Deed No. 8 dated June 23, 1962, both were made in front of Mr. chr. Soplanit, the notary in Ambon. In connection with the issuance of Law no. 13 of 1962 regarding the main provisions of Regional Development Bank (State Gazette of Republic Indonesia, 1962 No. 59, based on the Regional Regulation of the Maluku Province No. 01/DPRGR//1966 concerning the Maluku Regional Development Bank, the operational activities of PT. Bank Maluku Regional Development Bank as March 1, 1966 was terminated and all assets and liabilities of PT Bank Pembangunan Daerah Maluku were transferred to Maluku Regional Development Bank Based on the Minister of Home Affairs Regulation No. 1 of 1998 dated February 4, 1998 concerning the Legal Form of the Regional Development Bank, the Company re-change the form of legal entity from the original Regional Company into a Limited Liability Company. The change in the legal entity of the Company is stipulated in Regional Regulation No. 02 of 1999 dated May 25, 1999 concerning the Change of Legal Entity of the Maluku Regional Development Bank from a Regional Company (PD) to a Limited Liability Company (PT) Maluku Regional Development Bank as announced in Regional Gazette of the Province of Maluku, dated July 2, 1999 Series D No. 07, ratified by the Minister of Home Affairs with Decree No. 584.71-719 dated June 29, 1999, the legal entity status of the Company changed from a Regional Company (PD) to a Limited Liability Company (PT).

PT. Maluku Utara Regional Development Bank has a vision: "To become a leading commercial bank with strong capital, competitive products and services and contributive to regional and community development"

Descriptive Analysis

Descriptive analysis is an analysis conducted to assess the data characteristics. Descriptive statistics is the process of collecting, presenting, and summarizing various data characteristics in an effort to adequately describe the data. These data must be summarized properly and regularly, either in tabular form or graphical presentation, as a basis for various decisions making.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Operating Costs and Operating Income	60	62.64	97.45	72.6340	5.63246
Non Performing Loan	60	.08	2.42	.8048	.77900
Loan to Deposit Ratio	60	51.77	91.90	67.2035	8.64010
Return on Asset	60	36	4.80	3.2690	.70330
Valid N (listwise)	60				

Source: data processed with SPSS, 2020

Based on table 4 above, it shows that the variable Operating Costs and Operating Income (BOPO) from 60 research samples from 2015–2019 obtained an average value (mean) of 72.6340, while the highest value is 97.45 and the lowest value is 62.64 with a standard deviation of 5,63246. For Non-Performing Loans (NPL) from 60 samples (2015-2019) the average value (mean) is 0.8048 while the highest value is 2.42 and the lowest value is 0.08 with a standard deviation of 0.77900.

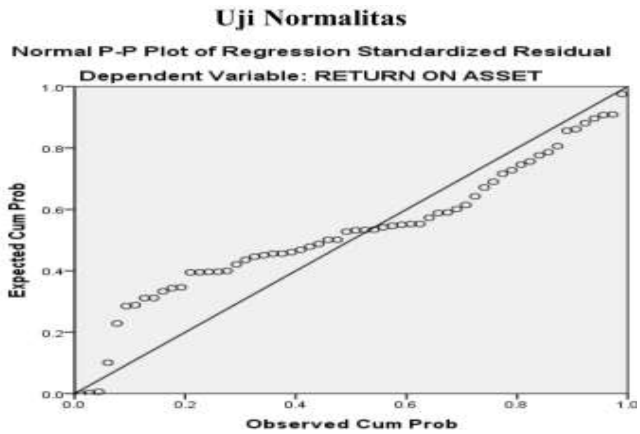
While the Loan to Deposit Ratio (LDR) of 60 research samples (2015–2019) obtained an average value (mean) of 67.2035, while the highest value was 91.90 and the lowest value were 51.77 with a standard deviation of 8.64010. Furthermore, for Return on Assets (ROA), from 60 research samples (2015-2019) the average value (mean) is 3.2690 while the highest value is 4.80 and the lowest value is 0.36 with a standard deviation of 0.70330.

Classical Assumption Testing Analysis

Normality test

The normality test aims to examine whether in the regression model, the confounding or residual variables have a normal distribution or not. The following is a picture that shows the results of the normality test in this research:

Figure 1. Normality Test

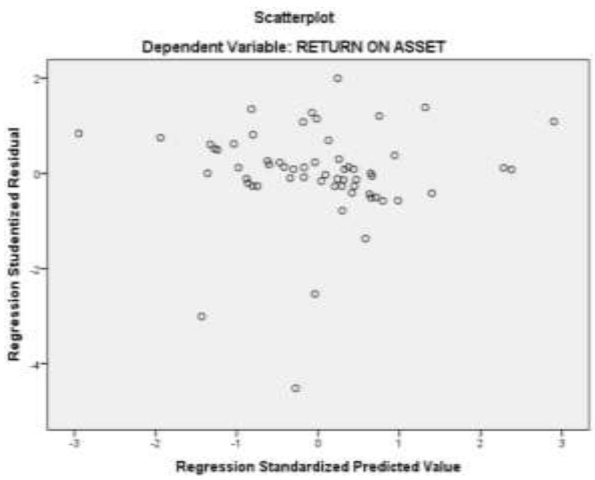


From the graph above, it can be seen that the PP plot value is located around the diagonal line. When we look further at the PP plot, it can be seen that the PP Plot value does not deviate much from the diagonal line, then it can be interpreted that the distribution of decision data is normal.

Heteroscedasticity Test

Heteroscedasticity test aims to examine whether there is an inequality of variance from the residuals of one observation to another observation in the regression model or not. There is no heteroscedasticity when there is no clear pattern, and the points spread above and below the number 0 on the Y axis. (Imam Ghozali, 2011: 139–143).

Figure 1. Heteroscedasticity Test



Source: data processed with SPSS, 2020

From the scatter plot, it can be stated that there is no heteroscedasticity where the points spread randomly and spread above and below the number 0 on the Y axis.

Autocorrelation Test

The autocorrelation test aims to examine whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous) in the linear regression model or not. When there is a correlation, it is called an autocorrelation problem (Ghozali, 2011).

Table 3. Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.482[a]	.233	.192	.63233	2.123

a. Predictors: (Constant), LOAN TO DEPOSIT RATIO, BIAYA OPERASIONAL DAN PENDAPATAN OPERASIONAL, NON PERFORMING LOAN

b. Dependent Variable: RETURN ON ASSET

Source

From the table above, it can be seen that the Durbin Watson (DW) value is 2.123, then compared with the du and 4-du values taken from the Durbin Watson table at K=4 and t=60 so that du is 1.7274. Then it can be concluded that the results of du < dw < 4-du (1.7274 < 2.123 < 4-1.7274 = 2.2726). Thus it concluded no autocorrelation, then the regression model is feasible to use.

Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constan)	2.136	1.145		1.509	.137		
BOPO	.039	.015	.314	2.612	.012	.946	1.057
NPL	-.029	.110	-.032	-.262	.794	.923	1.084
LDR	-.025	.010	-.130	-.2844	.016	.844	1.131

Dependent Variable: RETURN ON ASSET

Source: data processed with SPSS, 2020

From the table above, it can be concluded that:

Profitability (ROA) = 2,136 + 0,039 BOPO - 0,029NPL - 0,025LDR

Based on the results of multiple linear regressions above, it can be seen that the constant value is 2.136. This means that the Operating Costs and Operating Income (BOPO), Non Performing Loans (NPL), and Loan To Deposit Ratio (LDR) are equal to zero (no effect), then the level of Return on Assets (ROA) of PT. Bank Maluku-Malut for 2015–2019 period was 2.136%. BOPO = 0.039, meaning that if X2 (NPL) and X3 (LDR) are equal to zero (no effect), then the Return on Assets (ROA) of PT. Bank Maluku-Malut for 2015-2019 period of 0.039 = 3.9% NPL = - 0.029, meaning that if X1 (BOPO), and X3 (LDR) are equal to zero (no effect), then the level of Return on Assets (ROA) at PT. Bank Maluku-Malut for 2015-2019 period is minus 0.029 = - 2.9%. LDR = – 0.025, meaning that when X1 (BOPO), and X2 (NPL) are equal to zero (no effect), then the level of Return on Assets (ROA) at PT. Bank Maluku-Malut Bank for 2015-2019 period is minus 0.025 = - 2.5%.

Hypothesis Test (Partial Test – t test)

The purpose of the partial test is to find out how far the influence of the independent variable (X) on the dependent variable (Y) partially. Hypothesis testing will be examined using a significance level of 0.05 (α = 5%) or a confidence level of 0.95. The hypothesis is formulated as follows:

Ho : bi = 0

HA : bi ≠

The provisions in this test are as follows:

1) If the significance level is 5%, Ho is rejected and Ha is accepted

2) If the significance level is 5%, Ho is accepted and Ha is rejected.

Table 5. Partial Test (t- test)

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.136	1.415		1.509	.137		
Operating costs and Operating Income	.039	.015	.314	2.612	.012	.946	1.057
NON PERFORMING LOAN	-.029	.110	-.032	-.262	.794	.923	1.084
LOAN TO DEPOSIT RATIO	-.025	.010	-.130	-2.844	.016	.844	1.131

a. Dependent Variable: RETURN ON ASSET

Source: data processed with SPSS, 2020

Based on table 7 above, it can be seen that the coefficient value on Operating Costs and Operating Income is 0.039 and the significance value is 0.012 which is smaller than 0.05 of significance level. This means that Operational Costs and Operating Income (BOPO) have a positive and significant impact on the profitability (ROA) of PT. Bank Maluku–Malut for 2015–2019 periods.

The significance value of Non-Performing Loan (NPL) coefficient value is 0.029 and the significance value is 0.794 which is bigger than 0.05 of significance level. This means that NPL has a negative and insignificant effect on the profitability (ROA) of PT. Bank Maluku–Malut for the 2015–2019 periods.

The significance value of Loan to Deposit Ratio (LDR) coefficient value is 0.025 and the significance value is 0.016 which is smaller than 0.05 of significance level. This means that LDR has a negative and significant effect on the profitability (ROA) of PT. Bank Maluku–Malut for 2015–2019 periods.

Coefficient of Determination Test

The coefficient of determination (R2) measures how far the model's ability to explain variations in dependent variable. The value of the coefficient of determination is between zero and one. The small value of R2 means that the ability of the independent variables in explaining the variation of dependent variable is very limited.

The value close to one means that the independent variables provide almost all the information needed to predict the dependent variable variation (Ghozali, 2011)

Table 6. Coefficient of Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.482[a]	.233	.192	.63233	2.123

a. Predictors: Constant, Loan to Deposit Ratio, Operational Cost and Operational Income, Non performing Loan.
b. Dependent Variable: Return on Asset

Source: data processed with SPSS, 2020

From the results of coefficient of determination test in table 8, it shows that the Adjusted R Square value is 0.192. Thus it can be seen that the independent variables (BOPO, NPL, and LDR) affect the dependent variable (Profitability) by 19.2%, while the remaining 80.8% is explained by other factors outside this research.

Discussion

BOPO Analysis on Profitability (ROA)

Based on the research result shows that BOPO has a positive effect on profitability (ROA) at PT. Bank Maluku–Malut in 2015–2019 period. This can be seen from the t-test results where the significance value of BOPO is less than 0.05, which is 0.012. These results indicate that the efficiency level of bank in its operations affects the income level generated by PT. Bank Maluku–Malut, then the proposed hypothesis can be proven that BOPO has a positive effect on profitability.

The research conducted by (Yusriani, 2018) who examined the Effect of CAR, NPL, BOPO and LDR on Profitability at State-Owned Commercial Banks Persero on Indonesia Stock Exchange in 2018. The results of his research found that operating costs and operating income (BOPO) have a positive and significant effect on profitability (ROA) simultaneously and partially.

NPL Analysis on Profitability (ROA)

Based on the research result shows that NPL has a negative effect on the profitability (ROA) of PT. Bank Maluku–Malut for 2015–2019 period, where the significance value is bigger (0.794) than the significance (0.05) in the t-test results. Then, the hypothesis which states that NPL has a negative effect on profitability can be accepted.

NPL has a negative effect on profitability (ROA), due to the higher non-performing loans in this case which is associated with the collectability level, called loans with special attention, substandard, doubtful, and bad loans at PT. Bank Maluku–Malut is high, resulting in reduced profits that has a bad effect on the profitability of PT. Maluku–Malut Bank. This shows that the poorer credit quality will lead to bad loans and the high number of bad loans that occur will causes the decrease income.

This resulted that bank need to provide a large enough reserve for writing off the receivables, than the ability to provide credit would be very limited and when it was not payable immediately, it would result bank to its loss.

This study is in line with research conducted by (Luh Eprima Dewi ., Nyoman Trisna Herawati, SE.AK, M.Pd. ., Ni Luh Gede Erni Sulindawati, SE. Ak, 2015) who examined the effect of NIM, BOPO, LDR, and NPL on Profitability, where the results of the study showed that partially NPL had a significant negative effect to profitability (ROA). On the contrary, the research conducted by (Pinasti & Mustikawati, 2018) which states that Non-Performing Loans (NPL) has positive, but not significant effect on profitability.

LDR Analysis of Profitability (ROA)

The results of this research conducted at PT. Bank Maluku–Malut for the period 2015–2019 shows that the Loan to Deposit Ratio (LDR) has a negative effect on profitability (ROA). This can be seen from the results of t-test where the LDR significance value is smaller (0.016) than the predetermined significance value (0.05). The results of the research which show the negative effect of LDR on profitability (ROA) means that the lower the LDR, the smaller the loans disbursed and will reduce profitability at PT. Bank Maluku–Malut in 2015–2019 period.

These results are in line with research conducted by (Pinasti & Mustikawati, 2018) which states that the Loan to Deposit Ratio (LDR) has a negative but not significant effect on profitability. And contrary to the research studied by (Luh Eprima Dewi ., Nyoman Trisna Herawati, SE.AK, M.Pd. ., Ni Luh Gede Erni Sulindawati, SE. Ak, 2015) which states that the Loan To Deposit Ratio (LDR) has a significant positive effect on Profitability partially.

CONCLUSION

Based on research results of BOPO, NPL, and LDR on profitability analysis (ROA) at PT. Bank Maluku–Malut for 2015–2019 periods, it can be concluded that operational costs and operating income (BOPO) have a positive effect on profitability (ROA) at PT. Bank Maluku–Malut in 2015–2019 period. Then, the hypothesis which states that BOPO has a positive effect on profitability (ROA) is acceptable, Non-performing loan (NPL) has a negative effect on profitability (ROA) at PT. Bank Maluku–Malut in 2015–2019 period. The hypothesis which states that Non-Performing Loans (NPL) has a negative effect on profitability (ROA) is acceptable. Loan to deposit ratio (LDR) has a negative effect on profitability (ROA). Then, the hypothesis which states that LDR has a positive effect on profitability (ROA) is rejected.

Suggestions

Based on the conclusions and limitations of the research that has been explained above, the suggestions that can be submitted are as follows:

For PT. Bank Maluku–Malut management needs to pay attention in capital aspects, asset quality, liquidity, and cost efficiency to increase the Bank's profitability (ROA) in the future. Furthermore, banks need to reduce unnecessary operational costs as much as possible, for example in reducing banking products and services that will cause the high costs. For further researchers, it is recommended to use other types of financial ratios as variables since with more variables; it will provide the maximum research results.

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