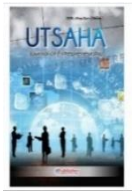

ISSN 2809-8501 (Online)
UTSAHA: Journal of Entrepreneurship
https://journal.jfpublisher.com/index.php/joe
Vol. 1, Issue 2, April 2022
doi.org/10.56943/joe.v1i2.57

BOPO Analysis, Non-Performing Loan (NPL), and Loan to Deposit Ratio (LDR) to Profitability

A 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 is a financial institution that collects public funds while empowering the community through credit provision. In granting credit to customers, the management of Bank Maluku–Malut implements various lending policies, which sometimes encounter challenges, particularly in loan repayment by customers.

Therefore, Bank Maluku–Malut must manage its products and operations efficiently and conduct its business carefully to achieve high profitability. One efficiency measurement tool used is the BOPO ratio (Operating Expenses to Operating Income). The BOPO ratio compares operating costs to operating income to measure a bank's efficiency. The lower the BOPO ratio, the more efficient the bank's operational costs.

Credit management through supervision and guidance is essential to achieving the right targets, minimizing risks, and preventing undesirable issues. The objectives of credit supervision include ensuring that credit disbursement aligns with the established requirements, that credit utilization matches its intended purpose, that customers' surpluses and cash flows are used to repay loans, and that customers' business development is monitored. Additionally, supervision aims to resolve problems, secure credit collateral, and prevent a decline in collateral value.

Failure in credit management can result in non-performing loans (NPL) or an increase in the NPL ratio. According to Maseke & Swartz (2021), NPL refers to loans where interest and principal payments are overdue by more than 90 days, or where more than 90 days' worth of interest has been restructured, capitalized, or delayed by agreement. Loans that are less than 90 days overdue but are no longer expected to be repaid are also categorized as NPLs.

A higher NPL ratio indicates poorer credit quality, leading to a larger number of non-performing loans and potential losses. Conversely, a lower NPL ratio contributes to increased bank profitability.

When the amount of credit disbursed decreases, it can indirectly impact a bank's liquidity, as reflected by the Loan to Deposit Ratio (LDR). The LDR measures a bank's ability to fulfill withdrawal requests from depositors by relying on loans disbursed as a source of liquidity. This ratio is calculated by dividing the total credit extended to third parties by the bank's total deposits.

A high LDR indicates limited liquidity management ability and a low health level, increasing the risk of financial distress. According to signaling theory, banks with high liquidity send positive signals to external parties, demonstrating strong financial health and reducing the likelihood of financial distress (Sarwo Kuncoro, 2017).

Profitability, as defined by Munawir (2010), is the company's ability to generate profit over a specific period. For banks, profitability is crucial for

shareholders, depositors, the government, and society. Maintaining profitability is essential to ensure stability or growth, as it reflects the management's efficiency in operating the bank (Kasmir, 2012). Below is a table showing the development of BOPO, NPL, and LDR at PT. Bank Maluku–Malut over the past five years.

Table 1. The Development of BOPO, NPL, and LDR at PT. Bank Maluku-Malut During 2015-2019

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, the BOPO (Operating Costs to Operating Income) values fluctuated but showed a general decreasing trend, indicating efficiency within the limits set by Bank Indonesia, which caps BOPO at 90%. In 2015, the BOPO was 73.45%, increased to 78.84% in 2016, and decreased to 71.05% in both 2017 and 2018 before falling further to 66.88% in 2019. Similarly, the Non-Performing Loan (NPL) ratio also fluctuated. In 2015, the NPL was 2.30%, but between 2016 and 2018, it averaged 0.43%, before slightly increasing to 0.42% in 2019. These values remained well within the maximum NPL threshold of 5% set by Bank Indonesia, which highlights that higher NPLs indicate poor credit management that can lead to bank losses. Meanwhile, the Loan to Deposit Ratio (LDR) of PT. Bank Maluku–Malut showed consistent growth. In 2015, the LDR was 63.70%, rising to 63.82% in 2016, and further increasing to 64.13%, 71.50%, and 72.86% from 2017 to 2019. According to Bank Indonesia Regulation No.15/7/PBI/2013, the optimal LDR range is 78%–92%, with values below 78% suggesting underutilization of raised funds and values above 92% indicating excessive credit disbursement.

The LDR level impacts the bank's profitability, and based on the data in Table 1, PT. Bank Maluku–Malut has not fully optimized its fund distribution. To improve profitability, the bank must manage liquidity effectively while maintaining the quality of credit provided to customers. Loan to Deposit Ratio (LDR) is an important measure of liquidity risk, and previous studies have shown varying results regarding its impact. Research by Luh Eprima Dewi et al. (2015) found that LDR positively and significantly influences profitability, while a study by Pinasti & Mustikawati (2018) suggested that LDR negatively affects

profitability, though not significantly. This research aims to explore the effects of BOPO, NPL, and LDR on the profitability of PT. Bank Maluku–Malut Ambon. These ratios are crucial for evaluating the bank's operational efficiency, and their careful, effective, and precise management is essential. The research problem focuses on analyzing the partial effects of BOPO, NPL, and LDR on the profitability of PT. Bank Maluku–Malut Ambon Branch, with the objective of identifying and understanding their influence to optimize profitability.

LITERATURE REVIEW

Bank

A bank is a type of financial institution that offers various services, including providing loans, managing and controlling currency circulation, safeguarding valuable assets, and financing business activities (Abdurrachman, 2014). Meanwhile, according to Indonesia (2012), a bank serves as a financial intermediary between parties with surplus funds and those in need of funds, as well as an institution that facilitates payment transactions.

BOPO

The BOPO ratio measures the relationship between operating costs and operating income. It is used to assess the efficiency and operational capability of a bank. According to Luh Eprima Dewi, Nyoman Trisna Herawati, and Ni Luh Gede Erni Sulindawati (2015), a higher BOPO ratio indicates lower financial performance, while a lower BOPO ratio reflects improved financial performance. The formula for calculating the BOPO ratio is:

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

Bank operational expenses consist of several components. First, interest costs refer to expenses incurred for funds owned by the bank. Foreign exchange costs arise from losses in foreign currency transactions. Overhead costs are expenses that do not provide future benefits, including employee-related costs, depreciation of fixed assets, office operational costs, and expenses linked to the financial reporting period. Employee costs represent all expenditures incurred to finance the bank's workforce, while depreciation costs are allocations charged to the income statement based on specific criteria or time periods. Non-operating costs include expenses unrelated to the bank's core activities, such as losses from the sale of fixed assets, extraordinary expenses, or abnormal and infrequent costs that are not associated with regular operations. Past corrections are adjustments made for miscalculations, errors in accounting principles, or unrecorded transactions. Lastly, income tax expenses refer to taxes incurred on the bank's operations.

On the other hand, bank operational income encompasses various sources of revenue. Interest income is generated from loans and investments. Fees and commissions represent income recognized when a loan is approved by the bank. Income from foreign exchange transactions is derived from differences in currency exchange rates. Other operating income includes revenue from additional operational activities, such as dividends received from shares. Non-operational income comprises revenue from activities outside the bank's core business. Extraordinary income refers to unexpected or unpredicted profits. Past corrections are adjustments for errors in prior financial statements, caused by miscalculations or incorrect application of accounting principles. Finally, the cumulative effect of changes in accounting principles reflects the difference in retained earnings due to changes in accounting practices applied retrospectively.

Non Performing Loan (NPL)

NPL is a key health indicator of a bank's asset quality. It is a basic financial ratio that provides insights into a bank's capital condition, profitability, credit risk, market risk, and liquidity. NPL, or Non-Performing Loans, can negatively impact a bank's capital. In summary, the formula for the NPL ratio is:

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

The factors contributing to the occurrence of NPLs are: (1) The debtor's willingness or intention, as well as the debtor's ability to repay the principal and interest on the loan; (2) Government and Bank Indonesia policies, which include policies that can affect the level of NPLs in banks, such as government policies on fuel price hikes that cause debtors to face difficulties in repaying their debts to banks. Similarly, the BI interest rate regulation can lead to an increase in credit interest rates; (3) Economic conditions, such as: (a) Inflation, which is a continuous and overall increase in prices. High inflation can reduce the debtor's ability to repay debts; (b) The Rupiah exchange rate, which impacts the debtor's activities not only nationally but also internationally, requiring the Rupiah exchange rate for transactions. To minimize the challenges faced by debtors and maximize efficiency and profitability, banks must develop a solid management system for the various aspects and parties involved.

Loan to Deposit Ratio (LDR)

Loan to Deposit Ratio (LDR) is the ratio between the amount of funds lent to the public (credit) and the total public funds along with the bank's own capital. This ratio reflects the bank's ability to meet depositors' withdrawal demands by using loans as a source of liquidity. A higher LDR indicates lower liquidity for the bank. The formula for LDR is as follows:

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

Profitability

According to Purwanto et al. (2020), profitability refers to a company's ability to generate profits in relation to sales, total assets, and equity. A company's high profitability enhances its competitiveness. Companies that achieve high profitability tend to expand by opening new branches or lines of business and increasing investments related to their core operations.

Profitability can be measured using the Return on Assets (ROA) ratio, which assesses a company's management efficiency in utilizing its productive assets to maximize profits. A higher ROA indicates better optimization of a company's productivity. According to Bank Indonesia regulations, a minimum ROA of 1.5 is required for healthy profitability. The formula for calculating the ROA ratio is as follows:

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

The research conducted by Luh Eprima Dewi, Nyoman Trisna Herawati, SE.AK, M.Pd., and Ni Luh Gede Erni Sulindawati, SE.AK (2015) states that Net Interest Margin (NIM) has a significant positive effect on ROA, meaning that the higher the bank's NIM, the higher the Return on Assets (ROA) achieved by the bank. It also indicates that Operational Cost/Operational Income (BOPO) has a significant negative effect on ROA, as an increase in BOPO (indicating lower efficiency) leads to a decrease in ROA. Furthermore, Loan to Deposit Ratio (LDR) has a significant positive effect on ROA, with the research showing that when a bank's ability to allocate credit funds to third parties is high, the bank provides more credit, boosting its profits and improving ROA. This, in turn, enhances the bank's financial performance, assuming that credit is effectively managed with minimal bad loans. Additionally, Non-Performing Loans (NPL) and Good Corporate Governance (GCG) have a significant negative effect on ROA, with a lower NPL indicating better financial performance. The study concludes that NIM, BOPO, LDR, and NPL collectively have a significant effect on ROA, suggesting that management should focus on these financial ratios to improve the bank's performance and attain a healthy bank status, which would attract both public and investor interest. Based on prior research and the situation faced by PT. Bank Maluku–Malut Ambon Branch, the following hypotheses are proposed: BOPO has a positive effect on the profitability of PT. Bank Maluku–Malut Ambon City; NPL has a negative effect on the profitability of PT. Bank Maluku–Malut Ambon City; and Liquidity Ratio (LDR) has a positive effect on the profitability of PT. Bank Maluku–Malut Ambon.

RESEARCH METHODOLOGY

The research employs a quantitative method, which focuses on quantifying and analyzing variables to obtain results. It involves the use of numerical data and specific statistical techniques to answer questions such as who, how much, what, where, when, how many, and how (Apuke, 2017). Additionally, the researcher seeks to explore the relationship and influence between variables over a 5-year observation period (2015–2019). The population and sample consist of financial statements, specifically balance sheets and income statements, from PT. Bank Maluku–Malut for the years 2015–2019, totaling 60 samples. The analytical techniques used in this research are:

1. Ratio Analysis
   a. BOPO

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

   b. Non-Performing Loan (NPL)

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

   c. Loan to Deposit Ratio (LDR)

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

   d. Return on Asset (ROA)

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

2. Statitical Analysis
   a. Classic Assumption Test
      1) Normality Test
         This test aims to determine whether the confounding or residual variables in the regression model follow a normal distribution. As is well known, the t and F tests assume that the residual values are normally distributed. The residuals are considered to be normally distributed if their significance value is greater than 0.05 (Imam Ghozali, 2011: 160–165).
      2) Heteroscedasticity Test
         This test aims to examine whether there is an inequality in the regression model's variance, specifically in the residuals of one observation compared to another. Heteroscedasticity is absent when there is no clear

pattern, and the points are dispersed above and below the zero on the Y-axis (Imam Ghozali, 2011: 139–143).

3) Autocorrelation Test

This 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 period) in the linear regression model. When such a correlation exists, it is referred to as an autocorrelation problem (Imam Ghozali, 2011: 110).

b. Hypothesis Test

1) Partial Test (T-Test)

The Partial Test (t-test) is a test to determine the extent of the influence of the independent variable (X) on the dependent variable (Y) partially. Hypothesis testing will be conducted using a significance level of 0.05 (α = 5%) or a confidence level of 0.95. The hypothesis is formulated as follows:

$$H_0 : bi = 0$$

$$H_a : bi \neq$$

The provisions in this test as follows:

a) When the significance level is 5%, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted.

b) When the significance level is 5%, the null hypothesis (H0) is accepted, and the alternative hypothesis (Ha) is rejected.

c. Coefficient of Determination Test (R^2)

This test measures the extent to which the model can explain the variation in the dependent variable. The coefficient of determination value ranges between zero and one. A small R^2 value indicates that the independent variable has a very limited ability to explain the variation in the dependent variable. A value close to one means that the independent variable provides almost all the information needed to predict the variation in the dependent variable (Imam Ghozali, 2011: 97).

d. Multiple Linear Regression Analysis

Multiple linear regression analysis is used to measure the linear relationship between two or more independent variables (X_1, X_2, …X_n) and a dependent variable (Y). This analysis helps determine the direction of the relationship between the independent and dependent variables, indicating whether each independent variable is positively or negatively related to the

dependent variable. It also predicts whether the dependent variable will increase or decrease. The multiple linear regression equation is as follows:

$$Y = \alpha + \beta_1.X_1 + \beta_2.X_2 + \beta_3.X_3$$

Description:
Y = Profitability
α = Constant
β_1, β_2, β_3 = Independent variable regression coefficient
X_1 = BOPO
X_2 = NPL
X_3 = LDR

RESULT AND DISCUSSION

Research Result

PT. Bank Maluku and North Maluku Regional Development Bank (the Company) was established on October 25, 1961, under the name PT. Maluku Regional Development Bank, based on the Deed of Establishment No. 3 dated October 25, 1961, as amended by Deed No. 8 dated June 23, 1962. Both deeds were made before Mr. Chr. Soplanit, a notary in Ambon. In connection with the issuance of Law No. 13 of 1962 regarding the main provisions of Regional Development Banks (State Gazette of the Republic of Indonesia, 1962 No. 59), and based on the Regional Regulation of Maluku Province No. 01/DPRGR/1966 concerning the Maluku Regional Development Bank, the operational activities of PT. Bank Pembangunan Daerah Maluku were terminated as of March 1, 1966, 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 Regional Development Banks, the Company changed its legal entity form from a Regional Company to a Limited Liability Company. The change in the legal entity was stipulated in Regional Regulation No. 02 of 1999 dated May 25, 1999, regarding the conversion of the Maluku Regional Development Bank from a Regional Company (PD) to a Limited Liability Company (PT). This change was announced in the Regional Gazette of Maluku Province on July 2, 1999, Series D No. 07, and ratified by the Minister of Home Affairs with Decree No. 584.71-719 dated June 29, 1999. PT. Maluku Utara Regional Development Bank envisions: "To become a leading commercial bank with strong capital, competitive products and services, and a contribution to regional and community development."

Descriptive Analysis

Descriptive analysis is conducted to assess the characteristics of data. 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 properly and regularly summarized, either in tabular form or graphical presentation, as a basis for decision-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: Processed Data by Researcher used SPSS (2020)

Based on Table 2 above, it shows that the Operating Costs and Operating Income (BOPO) variable from 60 research samples between 2015 and 2019 has an average value (mean) of 72.6340, with the highest value being 97.45 and the lowest value at 62.64, resulting in a standard deviation of 5.63246. For Non-Performing Loans (NPL) from the same 60 samples (2015-2019), the average value (mean) is 0.8048, with the highest value at 2.42 and the lowest at 0.08, leading to a standard deviation of 0.77900.

As for the Loan to Deposit Ratio (LDR) from the 60 research samples (2015–2019), the average value (mean) is 67.2035, with the highest value being 91.90 and the lowest at 51.77, resulting in a standard deviation of 8.64010. Finally, for Return on Assets (ROA), the 60 research samples (2015-2019) show an average value (mean) of 3.2690, with the highest value at 4.80 and the lowest at 0.36, and a standard deviation of 0.70330.

Classic Assumption Testing Analysis

Normality Test

The normality test aims to determine whether the confounding or residual variables in the regression model follow a normal distribution. Below is a figure that presents the results of the normality test in this study:

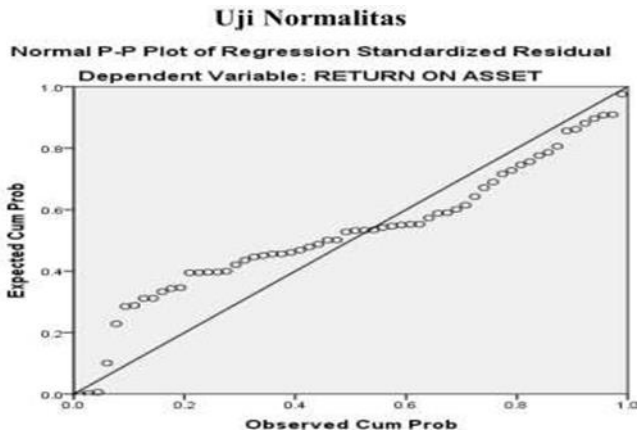

Figure 1. Normality Test
Source: Processed Data by Researcher used SPSS (2020)

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

The heteroscedasticity test aims to determine whether there is a variance inequality in the residuals from one observation to another in the regression model. Heteroscedasticity is absent when there is no distinct pattern, and the points are evenly spread above and below the zero on the Y-axis (Imam Ghozali, 2011: 139–143).

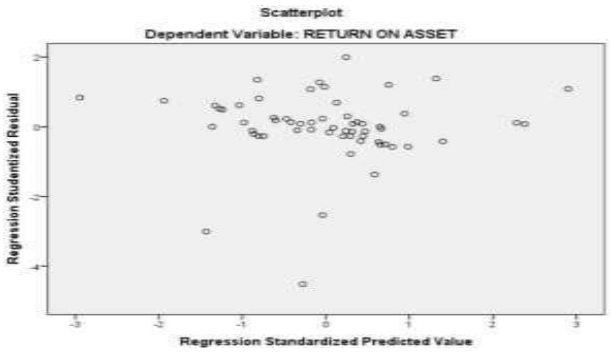

Figure 2. Heteroscedasticity Test
Source: Processed Data by Researcher used SPSS (2020)

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[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.482[b]	.233	.192	.63233	.2123

a. Predictors: (Constant), Loan to Deposit Ratio, Operating Expenses and Operating Income, Non Performing Loan

b. Dependent Variable: Return on Asset

Source: Processed Data by Researcher used SPSS (2020)

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	**Unstandardiz ed Coefficients**		**Standardi zed Coefficient s**	**t**	**Sig .**	**Collinearity Statistics**	
	B	**Std. Error**	**Beta**			**Tolerance**	**VIF**
(Cons-tan)	2.13	1.145		1.50	.13		
BOPO	6	.015	.314	9	7	.946	1.057
NPL	.039	.110	-.032	2.61	.01	.923	1.084
LDR	-	.010	-.130	2	2	.844	1.131
	.029			-	.79		
	-			.262	4		
	.025			-	.01		

				.284 4	6		

Dependent Variable: Return on Asset

Source: Processed Data by Researcher used 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 the multiple linear regression analysis above, it can be observed that the constant value is 2.136. This indicates that if the Operating Costs and Operating Income (BOPO), Non-Performing Loans (NPL), and Loan to Deposit Ratio (LDR) are all equal to zero (no effect), the Return on Assets (ROA) of PT. Bank Maluku-Malut for the 2015–2019 period would be 2.136%. BOPO = 0.039 means that if X_2 (NPL) and X_3 (LDR) are equal to zero (no effect), the Return on Assets (ROA) of PT. Bank Maluku-Malut for the 2015–2019 period would be 3.9%. NPL = -0.029 means that if X_1 (BOPO) and X_3 (LDR) are equal to zero (no effect), the Return on Assets (ROA) of PT. Bank Maluku-Malut for the 2015–2019 period would be -2.9%. LDR = -0.025 means that if X_1 (BOPO) and X_2 (NPL) are equal to zero (no effect), the Return on Assets (ROA) of PT. Bank Maluku-Malut for the 2015–2019 period would be -2.5%.

Hypothesis Test (Partial Test/T-Test)

The Partial Test (t-test) is a test to determine the extent of the influence of the independent variable (X) on the dependent variable (Y) partially. Hypothesis testing will be conducted using a significance level of 0.05 (α = 5%) or a confidence level of 0.95. The hypothesis is formulated as follows:

$$H_0 : bi = 0$$
$$H_a : bi \neq$$

The provisions in this test as follows:

1. When the significance level is 5%, the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_a) is accepted.
2. When the significance level is 5%, the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_a) is rejected.

Table 5. Partial Test (T-Test)

Coefficient[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: Processed Data by Researcher used SPSS (2020)

Based on Table 5 above, the coefficient value for Operating Costs and Operating Income is 0.039, with a significance value of 0.012, which is smaller than the 0.05 significance level. This indicates that Operating Costs and Operating Income (BOPO) have a positive and significant impact on profitability (ROA) for PT. Bank Maluku–Malut during the 2015–2019 period.

The coefficient value for Non-Performing Loans (NPL) is 0.029, with a significance value of 0.794, which is greater than the 0.05 significance level. This suggests that NPL has a negative and insignificant effect on profitability (ROA) for PT. Bank Maluku–Malut during the 2015–2019 period.

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

Coeeficient of Determination Test

The coefficient of determination (R^2) measures the extent to which the model can explain variations in the dependent variable. The value of the coefficient of determination ranges from zero to one. A small R^2 value indicates that the ability of the independent variables to explain the variation in the dependent variable is very limited. A value close to one means that the independent variables provide almost all the information needed to predict the

variation in the dependent variable (Ghozali, 2011).

Table 6. Coefficient of Determination Test

Model Summary[a]

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, Operating Expenses and Operating Income, Non Performing Loan

b. Dependent Variable: Return on Asset

Source: Processed Data by Researcher used SPSS (2020)

From the results of coefficient of determination test in Table 6, 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.

Research Discussion

BOPO Analysis on Profitability (ROA)

Based on the research results, it can be concluded that BOPO has a positive effect on profitability (ROA) at PT. Bank Maluku–Malut during the 2015–2019 period. This is evident from the t-test results, where the significance value of BOPO is less than 0.05, at 0.012. These results indicate that the efficiency level of the bank's operations affects the income generated by PT. Bank Maluku–Malut, thus proving the proposed hypothesis that BOPO has a positive effect on profitability.

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

NPL Analysis on Profitability (ROA)

The research results show that NPL (Non-Performing Loans) has a negative effect on the profitability (ROA) of PT. Bank Maluku-Malut during the period from 2015 to 2019. The significance value is 0.794, which is greater than the significance level of 0.05 based on the t-test results. Therefore, the hypothesis stating that NPL negatively affects profitability is accepted.

NPL negatively impacts profitability (ROA) due to the high levels of non-performing loans, which are associated with the collectability status, including loans under special attention, substandard, doubtful, and bad loans at PT. Bank

Maluku-Malut. This results in reduced profits and negatively affects the bank's profitability. Poorer credit quality leads to an increase in bad loans, which in turn causes a decrease in income.

As a result, the bank needs to allocate substantial reserves for loan write-offs. Without sufficient reserves, the bank's ability to provide credit is limited, and if loans are not repaid on time, this could lead to losses.

This study is consistent with research conducted by Luh Eprima Dewi, Nyoman Trisna Herawati, SE.AK, M.Pd., and Ni Luh Gede Erni Sulindawati, SE.AK (2015), which examined the effects of NIM, BOPO, LDR, and NPL on profitability. Their findings indicated that NPL had a significant negative effect on profitability (ROA). However, the study by Pinasti & Mustikawati (2018) found that NPL had a 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 indicate that the Loan to Deposit Ratio (LDR) has a negative effect on profitability (ROA). This is evident from the t-test results, where the significance value of LDR (0.016) is smaller than the predetermined significance level (0.05). The findings suggest that a lower LDR corresponds to smaller loans being disbursed, which subsequently reduces profitability at PT. Bank Maluku–Malut during the 2015–2019 period.

These results align with research by Pinasti & Mustikawati (2018), which also indicates that the Loan to Deposit Ratio (LDR) has a negative but not significant effect on profitability. However, they contrast with the study by Luh Eprima Dewi, Nyoman Trisna Herawati, and Ni Luh Gede Erni Sulindawati (2015), which states that the Loan to Deposit Ratio (LDR) has a significant positive effect on profitability.

CONCLUSION AND SUGGESTION

Conclusion

Based on the research results analyzing BOPO, NPL, and LDR in relation to profitability (ROA) at PT. Bank Maluku–Malut during the 2015–2019 period, the following conclusions can be drawn: Operational Costs to Operating Income (BOPO) positively affect profitability (ROA) at PT. Bank Maluku–Malut during this period. Therefore, the hypothesis stating that BOPO has a positive effect on profitability (ROA) is accepted. Non-Performing Loans (NPL) negatively affect profitability (ROA), and the hypothesis asserting that NPL has a negative effect on profitability (ROA) is also accepted. However, the Loan-to-Deposit Ratio (LDR) negatively impacts profitability (ROA), leading to the rejection of the hypothesis that LDR has a positive effect on profitability (ROA).

Suggestion

Based on the conclusions and limitations of the research explained above, the following suggestions are proposed. For the management of PT. Bank Maluku–Malut, greater attention should be given to aspects of capital, asset quality, liquidity, and cost efficiency to improve the Bank's profitability (ROA) in the future. Additionally, efforts should be made to minimize unnecessary operational costs, such as reducing banking products and services that lead to high expenses. For future researchers, it is recommended to include additional financial ratios as variables in their studies, as a broader range of variables can yield more comprehensive and accurate research results.

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