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THE EFFECT OF NON-PERFORMING LOAN LEVEL, CREDIT DISTRIBUTION AND OPERATING EXPENSES ON THE RETURN ON CAPITAL RATE IN BANKING SUB-SECTOR COMPANIES IN KBMI CATEGORY 3 LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE PERIOD 2020-2024

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Abstract:
This study aims to analyze the effect of non-performing loans, credit distribution rates, and operational expenses on the return on equity of KBMI 3 category banking sub-sector companies listed on the Indonesia Stock Exchange (IDX). The approach used is quantitative with an explanatory research type. The sample was determined using purposive sampling and consisted of 9 companies. Secondary data were obtained from the 2020-2024 financial reports through the IDX official website and analyzed using multiple linear regression with SPSS version 25. The results show that partially, non-performing loans (NPL) do not have a significant effect on return on equity (ROE), while loan-to-deposit ratio (LDR) and operating expenses (BOPO) have a significant effect. These findings contribute to the development of literature and provide practical benefits for management, investors, and regulators. This study has limitations in the number of variables studied, and the scope of the sector is still narrow, so the results cannot be generalized widely.

Keywords: Size, Growth, Profitability, Quality, Profit

INTRODUCTION

The quality of NPLs can be used to measure a bank's management ability to manage non-performing loans. Therefore, the higher this ratio, the worse the bank's credit quality, thus increasing the likelihood of the bank being in trouble (Suyatno, 2018). Conversely, a lower this ratio indicates good earning asset quality. A high NPL level indicates the presence of non-performing loans at the bank. A higher non-performing loan ratio indicates the bank's inability to recoup funds provided by debtors, resulting in reduced profits. It is shown in the following Figure:

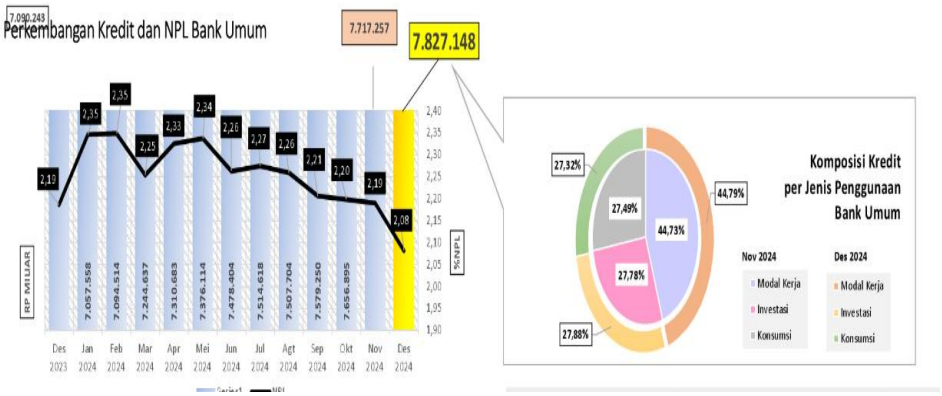

Figure 1. Liquidity Chart

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Liquidity, in general, is a bank's ability to meet customer requests for cash withdrawals when needed. A bank should have sufficient liquidity; both too low and too high liquidity can affect the bank's condition. Banks with low liquidity will have difficulty meeting obligations to creditors, while banks with excessive liquidity may indicate inefficient fund management. The Loan to Deposit Ratio (LDR) formula is often used to measure liquidity. According to Latumaerissa (2014), the LDR is a formula that describes how much third-party funds are used to fulfill customer loan requests. A high LDR percentage indicates that the bank is able to utilize the funds entrusted by the public by converting them into credit. Thus, the bank will profit from the repayment of these loans; the more credit granted, the higher the bank's profitability.

BOPO (Operating Costs to Operating Income) is a ratio used to measure the operational efficiency of a bank. This ratio shows how much the bank spends to generate operational income. BOPO is an important indicator in assessing a bank's financial performance, because high operational efficiency can contribute to better profitability. BOPO is also called the efficiency ratio, which is a ratio used to measure the ability of bank management to control operational costs against operational income (Kasmir, 2018). The BOPO ratio has a strong influence on banks in measuring the level of efficiency and also the bank's ability to carry out its operational activities. Every increase in operational costs will result in reduced profit before tax, which will ultimately reduce profit or profitability. Conversely, if operational costs can be reduced, income will increase, thereby increasing profits and affecting ROE profitability (Hendrawati, 2018).

The banking industry, a sub-sector of KBM 3, plays a crucial role in the Indonesian economy. Companies in this sector contribute to economic growth and employment. A company's return on equity (ROE) is crucial in analyzing its financial performance. A high-quality ROE can be an indicator of a company's success and sustainability in the medium and long term. Various factors, including non-performing loans, credit disbursement rates, and operating expenses, influence return on equity. The banking industry is a significant contributor to the Indonesian economy, primarily due to fluctuating demand for credit. The 2020-2024 period is a time of uncertainty for this sector, particularly with the COVID-19 pandemic affecting the global economy. The pandemic has caused economic uncertainty, impacting corporate profits, potentially affecting the quality of their financial reports (Nurul Ismail Hasan et al., 2019).

Therefore, this study aims to fill this gap by providing the latest empirical evidence based on data from 2020 to 2024. Literature Review: Non-performing loans are often associated with information asymmetry and the ability to manage the rate of return on capital. Banking companies in the KBMI 3 sector tend to have a more stable rate of return on capital. The growth of credit distribution and the efficiency of banking companies reflect operational dynamics and prospects that can encourage management to adjust the rate of return on capital to meet investor expectations, the rate of return on capital that measures how much return the business owner (shareholder) gets on the capital invested in the business (Kasmir, 2018).

Theoretical Framework And Hypothesis Development. According to Ross (1977), the rate of return on equity signals inform investors or owners about the company's status. This model explains the company's capital structure based on the problem of asymmetric information between well-informed managers and poorly informed outside investors. This model is based on the idea that managers with good information about the company will attempt to convey this information to outside investors to increase the company's stock price. However, due to this asymmetric information, managers cannot simply announce this good information, as other company managers

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may also announce the same information, thus discouraging outside investors from trusting them. Investors must wait a while to verify the manager's claims.

Companies with bright prospects will send positive signals to the market, for example, by increasing dividends or openly providing clear financial information. Conversely, companies with unfavorable prospects tend to withhold information or display negative signals. Investors will then rely on these signals when making investment decisions. The implementation of signaling theory in the banking sector can be seen in how banks prepare and manage their financial ratios, such as ROE, NPL, LDR, and BOPO. Banks that demonstrate high ROE and low NPL send a positive signal to investors and customers that the bank is efficiently managed and has solid profitability performance.

Based on the theoretical foundation and previous research examining the influence of company size, growth, profitability, and earnings quality, the following is a framework that illustrates the relationship between the dependent and independent variables in this study.

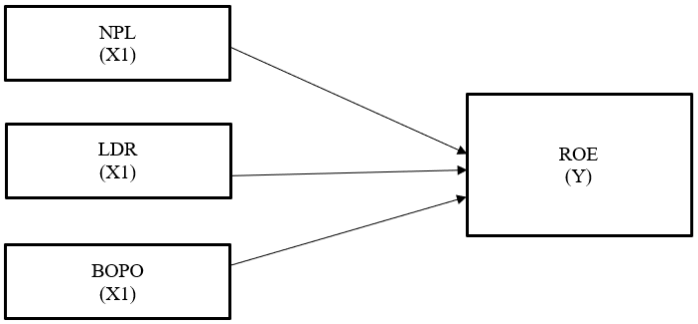

Figure 2. Conceptual Framework

According to Sugiyono (2020: 64), a hypothesis is a temporary answer to a research problem formulation. Therefore, the research problem formulation is usually structured in the form of a question. Hypothesis formulation is the third step in research, after the researcher has presented the theoretical basis and framework.

H1: Non-performing loans have a significant effect on the return on equity of KBMI 3 category banking sub-sector companies listed on the Indonesia Stock Exchange during the 2020-2024 period.

H2: Credit distribution has a significant effect on the return on equity of KBMI 3 category banking sub-sector companies listed on the Indonesia Stock Exchange during the 2020-2024 period.

H3: Operating expenses have a significant effect on the return on equity of KBMI 3 category banking sub-sector companies listed on the Indonesia Stock Exchange during the 2020-2024 period.

In theory, the interrelated factors of bad debt, credit distribution, and operating expenses influence the return on capital. All three reflect the health of banking operations and business prospects, thus influencing management.

METHODS

This research method uses a quantitative approach with an explanatory research design. The population in this study includes all consumer goods manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the 2020-2024 period. The sampling technique used was purposive sampling, resulting in nine companies meeting criteria such as complete financial reports and data availability throughout the study period. Secondary data was obtained from annual

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financial reports published on the official IDX website. Data analysis was performed using multiple linear regression with the help of SPSS software.

RESULT AND DISCUSSION

Classical Assumption Test. The test results using a multiple linear regression model in the data analysis discussion; therefore, a classical assumption test was first conducted. The assumptions used were:

1. Normality Test. This normality test aims to determine whether the independent and dependent variables are normally distributed. The normality test is used to assess whether the variables under study are normally distributed or not. The results using SPSS 25 are as follows:

Table 1. Results of the Kolmogorov-Smirnov Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		36
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	23.562113
Most Extreme Differences	Absolute	.201
	Positive	.201
	Negative	-.075
Test Statistic		1.147
Asymp. Sig. (2-tailed)		.0.148

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Source: SPSS Data Processing Results

In this study, based on the normality test results table above, the Kolmogorov-Smirnov Z-value is 1.147 with a significance level (sig) of 0.148. Since α = 0.05, sig > α, Ho is accepted. Therefore, the residuals are normally distributed.

2. Multicollinearity Test. The multicollinearity test aims to determine whether there is a strong correlation between the independent variables in the regression model (Wijaya, 2020:69). The presence or absence of multicollinearity in the regression model can be determined from the Tolerance and Variance Inflation Factor (VIF) values.

Table 2. Results of Multicollinearity Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	82.267	6.168		10.235	.000		
	NPL	1.077	.125	.120	2.237	.003	.896	1.019
	LDR	1.025	.196	.137	2.101	.000	.978	1.002
	BOPO	1.178	.133	.136	2.315	.001	.966	1.027

Source: SPSS Data Processing Results

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Table 2 shows that the VIF is <10. According to the VIF (Variance Inflation Factor) law, when the VIF value is <10, the study is considered to have no multicollinearity. However, if the VIF value is >10, the study is considered to have multicollinearity. The table above shows that three variables, namely the NPL variable, the LDR variable, and the BOPO variable, have values <10. Therefore, it can be concluded that this study does not have multicollinearity.

3. Heteroscedasticity Test. Heteroscedasticity testing can be performed using a scatterplot or the predicted value of the dependent variable, SRESID, with the residual error, ZPRED. If there is no specific pattern and the values are not spread above or below zero on the y-axis, heteroscedasticity is not present. A good model does not exhibit heteroscedasticity, as shown in the following figure:

Table 3. Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	6.365	5.652		1.158	.249
	NPL	.073	.112	.120	.544	.587
	LDR	-.038	.037	.137	-.652	.421
	BOPO	0.28	0.25	.136	0.95	.532

Source: SPSS Data Processing Results

Heteroscedasticity testing indicates that each model has a significance value greater than 0.05. It means that this regression model does not exhibit the same variance in residuals from one observation to another, indicating that heteroscedasticity does not occur.

Multiple Linear Regression Analysis. Data processing using multiple linear regression analysis involves several steps to identify the relationship between the independent and dependent variables. The results of data processing using SPSS 25 are shown in Table 5 below:

Table 4. Results of Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	82.267	6.158		10.235	.000
	NPL	-1.077	.125	.120	2.237	.002
	LDR	1.029	.196	.137	2.101	.000
	BOPO	1.178	.133	.136	2.315	.001

Source: SPSS Data Processing Results

Based on Table IV.4 above, the regression equation in this study is as follows:

$$\mathbf{Y = 82.267 - 1.077(X1) + 1.029\ (X2) + 1.176\ (X3) + e}$$

This equation can be interpreted as follows:

1. The constant (α) is negative, namely 82.267. It means that if non-performing loans, credit distribution, and operating expenses are all 0, then the return on capital is 82.267.

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2. Non-performing loans have a coefficient of -1.107, meaning that if non-performing loans increase, the return on capital is expected to decrease by -1.107. It indicates that capital has the potential to decrease.
3. Credit distribution has a coefficient of 1.029, meaning that an increase in credit distribution increases the return on capital. It indicates that companies with high credit distribution have increased capital.
4. Operating expenses have a coefficient of 1.178, indicating that the higher the operating expenses, the higher the capital.

1. Coefficient of Determination (R2). This coefficient of determination is used to determine the extent to which the independent variables influence the dependent variable.

Table 5. Results of the Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of theEstimate
1	.673[a]	.747	.826	.46372

Source: SPSS Data Processing Results

The results of this study show that, based on the table above, the coefficient of determination indicated by the R Square value is 0.673. It means that 97.3% of the variation in the efficiency variable can be explained by variations in the three variables of capital adequacy, liquidity, and asset quality. At the same time, the remainder (100% - 67.3% = 32.7%) is explained by other causes outside the research model.

Furthermore, NPLs have a negative and significant impact. It means that an increase in non-performing loans will reduce a bank's ability to generate profits from its assets, consistent with research by Fitria and Apriadi (2025). Meanwhile, banks with low liquidity will have difficulty meeting their obligations to creditors, while banks with excessive liquidity may indicate inefficient fund management. The Loan to Deposit Ratio (LDR) formula is often used to measure liquidity. According to Latumaerissa (2014), the LDR is a formula that describes how much third-party funds are used to fulfill customer loan requests. These results align with research by Bedford and Sandelin (2015), which explains that high-growth companies have a greater incentive to engage in earnings management to meet growth targets and market expectations. Practically, this means that managers of companies with rapid growth rates need to be careful in managing earnings reporting to avoid misinformation that could harm investors and other stakeholders (Heykal et al., 2024).

The operating expense variable, the BOPO ratio, has a strong influence on banks in measuring their efficiency and operational capabilities. Any increase in operating costs will result in a decrease in profit before tax, which will ultimately reduce profit or profitability. Conversely, if operating costs can be reduced, revenue will increase, thereby increasing profits and affecting ROE profitability (Hendrawati, 2018).

Thus, the results of this study provide a theoretical contribution to strengthen the relevance of signaling theory in the context of ROE of manufacturing companies in the KBMI 3 banking sector. Practically, these results can be used as a consideration by management to formulate policies, for investors to evaluate the health of the company not only from bad debts but also credit distribution, ga and size, as well as for regulators to.

CONCLUSION

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This study concludes that non-performing loans have a significant negative effect on capital, while credit distribution and operating expenses have a significant effect on capital, and company size has no significant effect. These findings address the research objective, which is that internal company factors such as credit distribution and operating expenses play a crucial role in creating better capital.

The practical implications of this study suggest that banking management needs to reduce non-performing loans to prevent them from impacting capital. For investors, information on credit distribution can be used as a reference in making investment decisions. Theoretically, these results support signaling theory, which states that non-performing loans and credit distribution provide positive signals to external parties regarding a bank's financial condition.

However, this study is limited by the number of independent variables examined, which only included non-performing loans, credit distribution, and operating expenses. Furthermore, this study was conducted only on KBMI 3, a banking sector company, so the results cannot be generalized to other sectors. Therefore, future research is recommended to include additional variables.

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