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Examining the Impact of BOPO and NPL on Profitability: The Role of Capital Structure as a Mediating Factor

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Abstract: ***This research was conducted to analyze the factors that can increase the value of profitability for PT Permodalan Nasional Madani using the ratio of operational efficiency (BOPO), credit risk (NPL), and profitability (ROA) with the Capital Structure (DER) as the mediation variable for the period 2013–2022. Sampling techniques are purposive sampling. A total of 120 data samples were collected. The analytical techniques used are path analysis, double linear regression analysis, and Sobel test. The hypothesis test using Test F, Test T, and Test R^2 with a level of significance of 5%. The results of the analysis using EViews 12 showed that (1) BOPO has a significant negative impact on profitability; (2) NPLs have no significant effect on profitability; (3) BOPOs do not have a significant impact on capital structure; (4) NPLs have significant negative effects on the capital structure; (5) capital structures have a significant positive impact on profitability; and (6) capital structure is unable to mediate the impact of BOPO on profitability; (7) a capital structure capable of mediating the effect of the NPL on profitability.***

Keywords: BOPO, NPL, Capital Structure (DER), Profitability (ROA)

1. Introduction

Globally, economic development still shows slow progress, this can be seen from the trend of slowing growth that will continue at the end of 2022 in several countries. In line with global economic growth, the economy in Indonesia in 2022 will continue to grow by 5.0% (year-on year) and overall in 2022 it will grow by 5.3% to recover as before the pandemic. [1] reports that economic recovery in Indonesia has occurred in several industrial sectors, one of which is financial services and non-bank financial institutions.

Focusing on accelerating economic recovery in the banking sector and the non-bank financial sector reflects the fast and strong economic growth in Indonesia and highly competitive market competition. Strengthening the economy in Indonesia cannot be separated from the role of MSMEs. Given the important role of MSMEs in the formation of gross domestic product, the government pays special attention and supports the MSME sector, one of which is the establishment of PT Permodalan Nasional Madani (PNM), a non-bank financing company founded in 1999 focusing on channeling capital financing to business actors. ultra micro, micro, small, medium (MSMEs) are distributed to groups of underprivileged women. One of the strategies undertaken to develop MSMEs is through increasing access to financing.

It is hoped that the PNM company can continue to maintain its existence as a company that is sustainable, profitable and has good financial and business performance in order to achieve long-term goals. The profitability of a company can be measured through the rate of return on profits. ROA is a measuring tool to determine the ability of an entity to generate profits [2].

In order to analyze the indicators that affect the profitability of PNM companies, other variables are needed, including those related to cost efficiency, credit risk, and the stability of the composition of the capital structure. The time series of other financial ratios are shown in the table below:

Table 1: Ratio of ROA, BOPO, NPL and DER for the 2013-2022 period at PT Permodalan Nasional Madani (PNM)

Periode	ROA	BOPO	NPL	DER
2013	1.98%	94.06%	2.75%	7.36X
2014	2.23%	91.19%	2.80%	6.87X
2015	2.20%	94.58%	3.39%	2.48X
2016	1.45%	93.68%	2.79%	3.31X
2017	0.74%	96.88%	2.36%	5.28X
2018	0.68%	96.96%	1.35%	8.27X
2019	5.93%	94.50%	1.19%	7.69X
2020	1.50%	96.27%	0.97%	4.67X
2021	2.88%	88.27%	0.54%	5.79X
2022	2.77%	90.78%	0.53%	5.30X
CAGR	**3.78%**	**-0.39%**	**-16.64%**	**-0.04X**

Based on this table, information can be obtained that the ROA ratio has fluctuated over the period 2013-2022, with a CAGR of 3.78% or it can be interpreted that the average ROA growth over a 10-year period is 3.78%. Likewise with BOPO which shows a fluctuating value with an average decrease every year for 10 years of 0.39%. The company's NPL shows a declining trend from 2015 to 2022, while the DER ratio shows varied results.

From the results of studies that have been conducted by previous researchers, it shows that there are several research gaps. Research conducted by; [3] stated the results that BOPO had a significant negative effect on ROA. Different results are shown in [4] which suggests that BOPO has no significant effect on ROA.

The results of research conducted by [5] show that NPL has an insignificant positive effect on ROA. Meanwhile, according to the research results of [6] NPL has a significant negative effect on profitability, both ROA and ROE.

The researcher chose PT Permodalan Nasional Madani (PNM) as a research subject based on the background of the business phenomena described previously and found the fact that previous research had not been consistent. So researchers use DER as a intervening variable to update research.

2. Literature Review

In order to uncover the problems in this research, strong principles are needed. As for this study, it will describe the grand theory and other theories related to the variables in this study.

2.1 Signaling Theory

This theory involves two parts, namely internal parties or company management who act as parties who give signals, and external parties (stakeholders) as parties who receive signals. Giving signals or cues shows that management is trying to provide relevant instructions and publications for stakeholders. Publications are made in order to reduce information asymmetry related to the current condition of the company's performance.

2.2 Profitability

According to [7] profitability is the relationship between income and costs generated by companies using productive assets, both current and fixed assets in operational activities. Return On Assets (ROA) in this study acts as a proxy for profitability. According to [8] Return On Assets (ROA) is one of the ratios that can be used to determine the level of profitability of an entity based on the number of assets it has. The formula for Return On Assets (ROA):

$$ROA = \frac{Net\ Income}{Total\ Assets} \times 100\% \qquad (1)$$

2.3 Capital Structure

According to [9] capital structure is a combination of debt, preferred stock, and common stock used to finance company assets. The company's capital structure can be interpreted as the ratio of debt to capital. This study focuses on capital structure from an external perspective where it compares third party debt to total equity or by measuring the Debt to Equity Ratio (DER). A higher DER value indicates that the company funds its operations with debt to third parties rather than own capital, so the company's risk level is higher. The formula for Debt To Equity Ratio:

$$DER = \frac{Total\ Liabilities}{Total\ Equity} \qquad (2)$$

2.4 Operational Efficiency Ratio (BOPO)

According to [10] BOPO is a tool for assessing management's ability to streamline operational costs to maximize operating income. The lower the BOPO value, the better the management's management of the soundness of its operations. The formula for BOPO:

$$BOPO = \frac{Operating\ Costs}{Operating\ Income} \times 100\% \qquad (3)$$

2.5 Non-Performing Loan (NPL)

According to [11] the ratio called Non-Performing Loan (NPL) shows how well a bank controls problem loans due to the customer's inability to pay part or all of their obligations. NPL describes credit risk, the lower the value of an NPL, the smaller the credit risk borne by management. The formula for NPL:

$$NPL = \frac{Substandard,\ doubtful\ and\ bad\ credit}{Total\ Credit} \times 100\% \qquad (4)$$

3. Methodology

The research design used in this study is a quantitative method with a descriptive and associative analysis approach. The object of this research is the non-bank financing institution PT Permodalan Nasional Madani (PNM). Observations in this study started from 2013 to 2022. The number of samples in this study was 120 data. The analysis technique used is; path analysis, multiple linear regression analysis, hypothesis testing and sobel test with a significance level of 5%. The type of data used in this research is historical secondary data. The data is obtained from the annual report which has been published by the company on its official website, namely www.pnm.co.id

4. Result

A series of data processing has been carried out using EViews 12 software. Data processing starts from; path analysis, multiple linear regression analysis, hypothesis testing and sobel test. Then the results obtained will be described in the form of recapitulation to make it easier to give an overview.

4.1 Partial Hypothesis Test (T Test)

The partial hypothesis test (t test) aims to determine whether there is an influence given by the independent variable to the dependent variable partially. The provisions can be seen through the p-value of each independent variable. The t test can be measured at the α level of 0.05.

Table 2: Recapitulation of Partial Hypothesis Test Result

Variable Effect	β	Prob.	α	Result
BOPO→DER	– 0,009447	0,8330	> 0,05	No significant effect
Variable Effect	β	Prob.	α	Result
NPL→DER	– 0,395649	0,0003	< 0,05	Negative significant effect
BOPO→ROA	– 0,100300	0,0023	< 0,05	Negative significant effect
NPL→ROA	– 0,127864	0,1140	> 0,05	No significant effect
DER→ROA	0,193419	0,0044	< 0,05	Positive significant effect

4.2 Sobel Test

The Sobel test is a test to find out whether the relationship through a mediating variable is significantly capable of being a mediator in the relationship.

Table 3: Recapitulation of Sobel Test Result

Variable Effect	Prob.	α	Result
BOPO→DER→ROA	0,83303942	> 0.05	Unable tomediate
NPL→DER→ROA	0,02156895	< 0,05	Able to mediate

5. Discussion

In this section, an in-depth discussion will be carried out on the results of data processing that have been described in the previous discussion.

5.1. Effect of BOPO on Profitability

Based on the results of data processing in the previous discussion, it shows that BOPO has a significant negative effect on profitability (ROA). The effect of BOPO referred to in this study is a comparison of operating expenses with operating income which has a high percentage value, reflecting that the high value of expenses is not offset by optimal income, as a result the company will bear operating expenses that are not high so that this has an impact on net profit which is he got. If the burden is high and the income earned is not optimal then this will affect the company's profitability.

5.2 Effect of Non-Performing Loan on Profitability

Based on the results of data processing in the previous discussion, it shows that NPL has no significant effect on profitability (ROA). The low non-performing loans indicates a smooth rate of return on receivables from customers and also PT PNM's strategy for a period of 10 years can be said to be efficient in reducing the number of non-performing loans. This ultimately has an impact on the stable income received by the company so that it does not affect profitability.

5.3 Effect of BOPO on Capital Structure

Based on the results of data processing in the previous discussion, it shows that BOPO has no significant effect on capital structure (DER). Based on research, this explains that the size of the BOPO does not have an impact on management's decision-making regarding sources of obtaining funding from external parties or own capital.

5.4 Effect of Non-Performing Loan on Capital Structure

Based on the results of data processing in the previous discussion, it shows that NPL has a significant negative effect on capital structure (DER). These results reflect that an increase in the value of NPL has an effect on an increase in the amount of debt to equity, this has a negative impact because when a company has a high level of non-performing loans, management also needs to establish reserves for impairment losses (CKPN) which can cover the NPL ratio. Establishment of allowance for impairment losses affects management's decision to increase sources of financing from external parties (interest bearing debt).

5.5 Effect of Capital Structure on Profitability

Based on the results of data processing in the previous discussion, it shows that capital structure (DER) has a significant positive effect on profitability (ROA). The positive effect of capital structure on profitability in question is, the lower the value of the capital structure as measured through DER, the higher the company's profitability. If the company's sources of funding obtained from external parties are reduced, the cost of capitalization of these loans will also be reduced, so that it can have an impact on returns and increased profits.

5.6 Effect of BOPO on Profitability with Capital Structure as Mediation

Based on the results of data processing in the previous discussion, it shows that the capital structure (DER) is not able to mediate the effect of BOPO on profitability (ROA). These results reflect that the high value of BOPO can affect the size of profitability, but the size of BOPO does not have an impact on management decision-making regarding the acquisition of funding sources from external parties and own capital, because the growth rate of loans provided by companies to customers is growing very well, where growth must be supported by the capital owned.

5.7 Effect of Non-Performing Loan on Profitability with Capital Structure as Mediation

Based on the results of data processing in the previous discussion, it shows that capital structure (DER) is able to mediate the effect of NPL on profitability (ROA). Companies that have low NPL values are able to increase profitability due to the impact of the stable turnover of income received from financing to customers and the low costs incurred for mitigating the risk of default on customer installments that are able to be streamlined by the company. Associated with the intermediary variable, namely capital structure, if the company has a low and well-maintained capital structure composition sourced from external parties, the interest costs charged to customer installments can be reduced. So that with the variable capital structure from external party funding that can be suppressed it is able to have an impact on reducing NPLs which can encourage increased profitability.

6. Conclusion

Based on the results of the research and discussion that has been carried out, the following conclusions can be drawn; (1) BOPO has a significant negative effect on profitability; (2) NPLs have no significant effect on profitability; (3) BOPOs do not have a significant effect on capital structure; (4) NPLs have significant negative effects on the capital structure; (5) capital structures have a significant positive effect on profitability; and (6) capital structure is unable to mediate the effect of BOPO on profitability. (7) a capital structure capable of mediating the effect of the NPL on profitability.

7. Future Scope

Based on the conclusions as previously described, the researcher recommends for related parties; It is hoped that the management involved will be able to pay more attention to a number of indicators that can maximize the level of company profitability by optimizing the financial ratios that have been tested in this study or by considering other financial ratios. For future researchers, it is recommended to further broaden the scope of research by adding other independent variables and adding proxies to the dependent variable to support more complex analysis results.

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