

# Internal Factors Determining Bank Profitability with Women Director Gender as a Moderating Variable

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## ABSTRACT

The purpose of this study is to analyze Credit Risk, Efficiency, Liquidity, LAR, Size on Profitability. This study uses a population of all Rural Bank (BPR) listed on Malang Raya in 2019-2023. The sampling method used purposive sampling method and obtained a sample of 21 companies for five years of observation, with the data technique used was multiple regression analysis. The results of this study indicate that credit risk, BOPO have a negative effect on Profitability. Liquidity and LAR have a positive effect on Profitability, meanwhile, Size and Gender Moderation of Women Directors have no effect on Profitability.

**Keywords:** Profitability, Gender, Bank

## 1. INTRODUCTION

The Rural Bank (BPR) has an important role in supporting national economic growth, especially in providing access to financing for the Micro, Small and Medium Enterprises (MSMEs) sector in accordance with POJK Number 5/POJK.03/2015 concerning BPR Business Activities. As a financial institution, BPR faces great challenges, especially in terms of profitability.

One of the factors that affect the Bank's profitability is credit risk or Non-Performing Loan (NPL). Research by Khan et al. (2020) and Widyakto et al. (2021) shows that NPLs have a significant negative influence on profitability. In addition, bank efficiency is essential in obtaining high profitability. Efficiency is measured through Operating Costs to Operating Income (BOPO). The findings of Adam et al., (2018), BOPO have a significant negative influence on profitability.

Liquidity as measured by Cash Ratio (CR) plays an important role in profitability. Liquidity indicates the availability of liquid funds in meeting short-term obligations. Study by Nuringwahyu et al., (2024) liquidity has a significant effect on profitability in Islamic banks. In addition, LAR measures the proportion of assets used to finance loans disbursed by banks reflects the bank's ability to allocate its assets productively as well as affect profitability. Research by Budiharjo et al. (2021) found that LAR had a positive effect on profitability (ROA) in banks listed on the IDX for the 2014-2018 period.

Bank size is one of the fundamental factors that reflects the bank's capacity to provide loans and earn interest income (Ali & Puah, 2019). The large size of the bank allows the bank to have a stronger competitiveness. However, a study by Muttaqin & Omar (2022) shows that bank size has a negative influence on profitability if it is not balanced with good management. In addition to the above indicators, gender diversity in the management structure has an impact on company performance. Widarti's study (2022) found that gender diversity improves company sustainability performance. This is in line with the findings of Galleta (2021) that gender diversity can improve company performance, especially in managing risk.

## 2. LITERATURE REVIEW

### 2.1. Profitability

Profitability is a fundamental indicator that reflects a company's ability to generate profits or profits over a certain period. POJK No. 4 /POJK.03/2015 BPRs must have the ability to generate profits, because profitability is a reflection of the efficiency of bank management in utilizing assets and liabilities optimally to achieve maximum revenue. Return

on Assets (ROA) is one of the main indicators used to measure a bank's profitability, by comparing its profit before tax with the average of a bank's total assets.

## **2.2. Credit Risk (NPL)**

Credit risk is the risk of loss faced by the bank due to the failure of the debtor or other parties in fulfilling payment obligations in accordance with the agreement. Credit risk is one of the main risks in bank operations, because credit disbursement is the bank's core activity in generating income. Credit risk can be reflected in the Non-Performing Loan (NPL) ratio. NPLs are indicators that show the proportion of non-performing loans to the total credit provided by banks.

## **2.3. Efficiency (BOPO)**

Efficiency in banking refers to the bank's ability to minimize operational costs while maximizing operating income. High efficiency means that banks can provide services at lower costs, which can improve profitability and competitiveness. Operational efficiency is important because high operating costs can reduce a bank's profit margin. BOPO is a ratio used to measure the level of operational efficiency of a bank by comparing total operating costs to total operating income.

## **2.4. Liquidity (Cash Ratio)**

Liquidity is the ability of a bank to meet its short-term financial obligations, including withdrawals by depositors and credit requests by customers. Liquidity is important for banks to maintain customer confidence and operational stability (Dani and Widyaningsih2024). Failure to manage liquidity can lead to serious problems, including a crisis of confidence that can lead to massive withdrawals (bank runs). The bank must ensure the availability of liquid assets to meet its short-term obligations. Cash Ratio (CR) is a ratio that measures a bank's ability to meet its current obligations with cash and cash-equivalent assets.

## **2.5. Loan to Asset Ratio (LAR)**

Loan to Asset Ratio (LAR) is a ratio that measures the proportion of bank assets allocated for credit financing. This ratio is calculated by dividing the total loans disbursed by banks by the total assets owned. LAR describes the efficiency of banks in utilizing assets to support credit activities which will ultimately have an impact on the bank's revenue.

## **2.6. Size**

The size of a company, which is often measured through total assets can affect the performance of a bank. Banks with larger assets may have a competitive advantage in the form of economies of scale, portfolio diversification, and better access to funding sources. The larger size also allows banks to spread risk and offer a wide range of products and services that have an impact on increasing bank revenue.

## **2.7. Gender of Women Directors**

The gender of Women directors in organizational leadership is the focus of attention because of their contribution to the company's performance. Women in leadership positions tend to show higher social sensitivity, good communication skills and more careful decision-making. In this study, the gender of the board of directors was measured by looking at the percentage of women in the board of directors. The gender of female directors in the leadership ranks brings a broader perspective and improves the quality of decision-making (Cardillo et al., 2020).

## **2.8. Research Hypothesis:**

- H1: Credit risk has a negative effect on profitability
- H2: Efficiency (BOPO) has a negative affects profitability
- H3: Liquidity affects profitability
- H4: LAR affects profitability
- H5: Size affects profitability

H6: Gender of Women Directors moderates the relationship between credit risk and profitability

### 3. RESEARCH METHODS

This study aims to determine the influence of credit risk, efficiency, liquidity, LAR and Size as well as gender moderation of female directors on the bank's profitability. The data used is secondary data from Bank BPR's financial statements for the period 2019 to 2023. The sampling technique is Purposive sampling based on certain criteria, namely: Rural Bank (BPR) in the Malang Raya area is actively registered with the OJK during the research period and BPR issues complete semester financial statements. Based on these criteria, there are 21 BPRs in Malang Raya with a total of 169 observations.

The multiple regression model used in this study can be formulated as follows:

$$ROA = \alpha + \beta_1 NPL_{it} + \beta_2 BOPO_{it} + \beta_3 CR_{it} + \beta_4 LAR_{it} + \beta_5 SIZE_{it} + \beta_6 (NPL \times Gender) + \varepsilon$$

**Remarks:**  $\beta_0$  is Intersep,  $\beta_1 - \beta_8$  is the Coefficient of each variable,  $t$  is the Time period,  $i$  is Refers to the company or each BPR,  $\varepsilon_{it}$  is a random disruption,  $ROA_{it}$  is Return on Assets, as an indicator of BPR's profitability,  $NPL_{it}$  is Credit Risk,  $BOPO_{it}$  is Bank Efficiency,  $CR_{it}$  is Cash Ratio,  $LAR_{it}$  is Loan Asset Ratio,  $SIZE_{it}$  is Bank Size,  $NPL \times GENDER$  is Credit Risk moderated by Gender Women Directors

### 4. RESEARCH RESULTS

The results of the ANOVA test or F test obtained the calculated F value of 99,122 and a significance value of 0.000. This shows that the independent variable, namely credit risk, efficiency, liquidity, Loan to Asset, size and Gender Moderation of Female Directors together effect on Profitability.

The result of the coefficient of determination (R square) test is 0.735 or 73.5%, meaning that the Bank's Profitability is influenced by the five independent variables, namely credit risk, efficiency, liquidity, LAR, size and Gender moderation of directors and the remaining 26.5% is influenced by other factors outside this study.

**Table 1.** Multiple Linear Regression Analysis Results

| Model          | Unstandardized Coefficients |           | Standardized Coefficients | T      | Sig.  |
|----------------|-----------------------------|-----------|---------------------------|--------|-------|
|                | B                           | Std Error | Beta                      |        |       |
| (constan<br>t) | 4.686                       | 2.287     |                           | 2.040  | 0.043 |
| NPL            | -0.174                      | 0.068     | -0.251                    | 2.565  | 0.011 |
| BOPO           | -0.096                      | 0.020     | -0.216                    | 4.917  | 0.000 |
| CR             | 0.80                        | 0.004     | 0.790                     | 17.902 | 0.000 |
| LAR            | 0.74                        | 0.023     | 0.145                     | 3.234  | 0.001 |
| Size           | 2.068                       | 0.000     | 0.003                     | 0.061  | 0.951 |
| NPLxGD         | 0.051                       | 0.052     | 0.094                     | 0.967  | 0.336 |

Dependent Variable: Profitability (ROA), Source: SPSS Output processed (2022)

### 5. DISCUSSION

Based on the results of the statistical test in table 4.1. it was found that the Beta value of -0.251 is negative with a significance of 0.011 <0.05. The results of this test mean that partially there is a negative and significant effect between credit risk (NPL) and profitability (ROA). The results of this study support previous studies conducted by Saleh et al. (2020), Sunaryo (2020), Kidane (2020), Mandagie (2021), and Ramadhanti et al. (2019) which stated that credit risk has a significant negative effect on profitability. Thus the first hypothesis is accepted. Based on the results of the statistical test in table 4.1. the results obtained that the Beta value is 0.145 with a significance of 0.000 <0.05. The results of this test mean that partially there is a negative and significant effect between efficiency (BOPO) on profitability (ROA). The results of this study are in line with the research of Al Aziz (2020); Pitaloka and Waluyo (2022) found a significant negative impact of BOPO on ROA. Thus the second hypothesis is accepted. Based on the results of statistical tests in table 4.1. it was found that the Beta value was 0.790 with a significance of 0.001 <0.05. The results of the test mean that partially there is a positive and significant influence between liquidity (CR) and profitability (ROA) in BPR. Thus the third hypothesis is accepted. Based on the results of statistical tests in table 4.1.

it was found that the Beta value was 0.145 with a significance of  $0.000 < 0.05$ . The results of the test mean that partially there is a positive and significant influence between Loan to Asset (LAR) on profitability (ROA) in BPR. Thus the fourth hypothesis is accepted. Based on the results of statistical tests in table 4.1. it was found that the Beta value was 0.003 with a significance of  $0.951 \geq 0.05$ . The results of the test mean that partially there is a positive and insignificant influence between Size (assets) on profitability (ROA) in BPR. Thus the fifth hypothesis is rejected. Based on the results of the statistical test in table 4.1. the results obtained that the Beta value is 0.094 with a significance of  $0.336 \geq 0.05$ . The results of this test mean that the moderation variable of Women Directors' Gender is not able to significantly strengthen the effect of Credit Risk on Profitability (ROA) in BPR. This result is not in line with the research of Nadeem et al. (2019) that gender diversity in directors can reduce risk and increase profitability. Thus the sixth hypothesis is rejected.

## 6. CONCLUSION

Based on the results of the analysis and discussion in the previous chapter, it can be concluded as follows:

1. Credit risk has a significant negative effect on Bank profitability.
2. Efficiency has a significant negative effect on Bank profitability.
3. Liquidity has a significant positive effect on Bank profitability.
4. LAR has a significant positive effect on Bank profitability.
5. Size does not have a significant effect on Bank profitability
6. Gender of Women Directors is not able to significantly moderate the relationship between credit risk and Bank profitability.

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