THE EFFECT OF BANK RISK ON FINANCIAL PERFORMANCE (CASE STUDY PT BANK NEGARA INDONESIA, TBK PERIOD 2018 - 2022)

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Abstract
One of the bank financial performance is influenced by bank risk factors. This study aims to determine the effect of banking risk analyzed from credit risk (NPL), market risk (NIM), liquidity risk (LDR) and operational risk (BOPO) on financial performance (ROA) and (ROE) at PT Bank Negara Indonesia, Tbk for the period 2018-2022. The analysis method used is descriptive analysis with a quantitative approach. Hypothesis testing is carried out using the SPSS22 data processing application, to carry out the classical assumption test, multiple linear regression test, correlation test (R), determination coefficient test (R2), partial significance test (t test) and simultaneous significance test (F test). The results showed that partially NPL had no effect on ROA and ROE; NIM had a significant positive effect on ROA and ROE; LDR had a significant positive effect on ROA and ROE; BOPO had no effect on ROA and ROE of PT Bank Negara Indonesia, Tbk for the period 2018-2022. The results also show that NPL, NIM, LDR and BOPO simultaneously have a significant positive effect on ROA and ROE of PT Bank Negara Indonesia, Tbk for the period 2018-2022.
Keywords: *financial performance; bank risk; credit risk; market risk; liquidity risk; operational risk*

1. INTRODUCTION

According to (Law Number 10 of 1998 concerning Amendments to Law Number 7 of 1992 concerning Banking), a bank is a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and/or other forms in order to increase standard of living of many people. According to (Rose & Hudgins, 2008), banks are defined as the function they perform in the economy, which is involved in transferring funds from savers to borrowers (financial intermediation) to pay for goods and services.

Evaluation of banks is needed to determine the progress that has been achieved. This assessment can be done by measuring performance. Financial performance is the result or achievement that company management has achieved in managing company assets successfully for a certain period of time (Rudianto, 2013). Corporations need to show their financial performance to assess the level of business success.

According to (Rose & Hudgins, 2008), a bank can be said to have worked well and efficiently if it can develop products and services and increase profitability. In this research, profitability is proxied by Return on Assets (ROA) and Return on Equity (ROE). The reason ROA and ROE were chosen as measures of financial performance is because these ratios represent returns on company activities.

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In carrying out activities, banks will always be faced with risks. Basically, risk is inherent in all bank activities, bank products and services. Referring to (OJK Regulation Number 18/POJK.03/2016) and (OJK Circular Letter Number 34/SEOJK.03/2016) which is an amendment to (Bank Indonesia Regulation Number 11/25/PBI/2009) amendment to PBI No. 5/8/PBI/2003 dated 19 May 2003 concerning the Implementation of Risk Management for banks, there are 8 (eight) types of risks that banks have. These risks include credit risk, market risk, operational risk, liquidity risk, compliance risk, legal risk, reputation risk and strategic risk. In this research the author analyzes 4 (four) types of bank risk, namely credit risk, market risk, liquidity risk and operational risk.

For this reason, the author tries to determine the effect of bank risk on financial performance, in this case the research was conducted at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

2. LITERATURE REVIEW

Financial Performance

Financial performance is a description of the business activities carried out by a company to achieve its goals. Financial performance can be reflected in the financial reports announced by the company. Financial reports can provide an overview of the amount of profit obtained by a company in one period (Putra, Darwis, & Priandika, 2021). According to (Irham, 2012), financial performance is an analysis carried out to see the extent to which the company has implemented financial implementation rules properly and correctly. According to (Munawir, 2010), the company's financial performance is one of the bases for assessing the company's financial condition which is carried out based on analysis of the company's financial ratios. It can be concluded that financial performance is a description of every economic result that can be achieved by a company (bank) in a certain period through the company's activities to generate profits effectively and efficiently, the progress of which can be measured by conducting an analysis of the financial data.

Dimensions of Financial Performance

Bank Indonesia in (Bank Indonesia Circular Letter Number 6/23/DPNP, 2004) regulates the level of bank soundness for commercial banks that carry out conventional business activities as well as in (Bank Indonesia Regulation Number 6/10/PBI/2004) concerning the assessment system public bank health level, banks are required to assess the bank's health level. Intermediation, profitability and risk are indicators for assessing bank performance (Rahim, 2014).

To measure a company's financial performance, several financial ratios can be used and the results of the measured ratios are interpreted so that they become meaningful for decision makers (Kasmir, 2019). Financial performance indicators that are commonly used are ratio analysis, especially profitability ratios (Sparta, 2015).

The profitability ratio is a ratio to assess a company's ability to seek profits and the effectiveness of a company's management (Kasmir, 2019). According to (Indonesian Bankers Association, 2017), the profitability ratio will show the company's ability to generate profits and the level of income that determines the level of return on capital invested by shareholders in the form of investment.

In this research, financial performance is measured using return on assets (ROA) and return on capital (ROE).

Return on Asset (ROA)

The profitability ratio is used to determine the amount of profit or profits generated by the company. The profitability ratio can be measured using Return on Assets (ROA). ROA is a financial ratio that shows management's ability to obtain profits for every rupiah of its assets (Siamat, 2005). ROA measures a company's ability to generate profits by using the total assets (wealth) owned by the company after adjusting for the costs of funding these assets (Hanafi & Halim, 2012). Return on Assets (ROA) can be formulated as follows:

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

Return on Equity (ROE)

Profitability ratios can be measured using Return on Equity (ROE). Return on Equity (ROE) is a profitability ratio that reflects the bank's ability to generate profits from each shareholder and shows the bank's success in using these funds to achieve maximum profit growth (Financial Services Authority, 2017). The size of the ROE gives an indication that the return that investors will receive will be high, so that investors will be interested in buying these shares, and this causes market share prices to tend to rise. As a result, the higher the ROE, the higher the market price (Jumingan, 2014). Return on Equity (ROE) can be formulated as follows:

$$ROE = \frac{Net\ Profit}{Shareholder\ Equity}\ x\ 100\% \qquad (2)$$

Bank Risk

Banks have various financial activities and broad opportunities for earning income (income/return). In carrying out these activities, banks will always be faced with risks. According to (Bessis, 2015), risk is defined as uncertainty that has detrimental consequences on income or wealth, or uncertainty associated with negative outcomes only. According to (Bank Indonesia), risk is the level of potential loss that must be accepted when providing credit, transferring investments, or carrying out other transactions which may include assets, loss of income, or a decrease in a person's ability to generate income as a result of changes in interest rates, government regulations, and failed business ventures. Risk in the context of banks is a potential event, both expected and unpredictable, which has a negative impact on bank income and capital.

Bank Risk Dimensions

Based on (OJK Regulation Number 18/POJK.03/2016), bank risk can be categorized into 8 (eight) types of risk, including: credit risk, market risk, liquidity risk, operational risk, compliance risk, legal risk, reputation risk, risk strategic. In this research, the risk analysis used includes: credit risk, market risk, liquidity risk and operational risk.

Credit Risk

Credit risk is the risk of loss due to borrower failure or worsening credit quality. Default risk is the risk that the borrower fails to fulfill its debt obligations. Credit risk also refers to a decline in a loan's credit status, which does not necessarily involve default but increases the likelihood that it will occur. When a loan's credit quality declines, its book value remains unchanged, but its economic value decreases as the probability of default increases. Recovery risk is the uncertainty of the value of recovery in the event of default. Losses that persist after recovery efforts are losses related to default. (Bessis, 2015). Credit risk can be measured using Non-Performing Loans (NPL). NPL can be formulated as follows:

$$NPL = \frac{Problem\ Credit}{Total\ Credit}\ x\ 100\ \% \qquad (3)$$

Market Risk

Market risk is the possibility of loss resulting from unfavorable market changes that reduce the value held by market participants. “Risk factors” are market variables that move randomly; examples include interest rates, equity indices, or foreign exchange rates. Because market sizes tend to be larger over longer periods, market risk depends on the time it takes to sell an item. (Bessis, 2015). Market risk can be measured using Net Interest Margin (NIM). NIM can be formulated as follows:

$$NIM = \frac{Interest\ Income - Interest\ Expense}{Average\ Earning\ Assets}\ x\ 100\ \% \qquad (4)$$

Liquidity Risk

The risk of not being able to raise money when needed is known as liquidity risk. By taking out loans or peddling financial assets on the open market, banks raise money. Borrowing to raise money is called liquidity protection. When borrowers cannot borrow or cannot borrow under ordinary circumstances, financial danger arises. When the market is unable to accommodate transactions at current prices, asset liquidity refers to cash obtained through the sale of assets in the market as a source of replacement funds. It also refers to unfavorable price changes for buyers or sellers as a result of their own trading. When there are too many participants executing similar trades, asset liquidity problems can develop (Bessis, 2015). Liquidity risk can be measured using the Loan to Deposit Ratio (LDR). LDR can be formulated as follows:

$$LDR = \frac{Credit\ Given}{Total\ funds\ received}\ x\ 100\ \% \qquad (5)$$

Operational Risk

The danger that information systems, reporting systems, internal monitoring regulatory systems, and procedures intended to take corrective action quickly will fail to function is known as operational risk. Operational risk is described by regulators as “the risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems or from external events.” When authorities decide that operational risk should be incurred as a capital cost, operational risk comes into play. focus (Bessis, 2015). Operational risk can be measured using Operational Costs to Operating Income (BOPO). BOPO can be formulated as follows:

$$BOPO = \frac{Operating\ Costs}{Operating\ Income}\ x\ 100\ \% \qquad (6)$$

Hypothesis Development

As a reference for the research to be carried out, the researcher refers to several studies that have been carried out previously.

The Effect of Credit Risk (NPL) on Financial Performance (ROA) and (ROE)

NPL is a ratio used to measure a bank's ability to measure the risk of failure to repay credit by debtors to the bank. NPL reflects credit risk. The smaller the NPL, the smaller the credit risk borne by the bank. When providing credit, banks must carry out an analysis of the debtor's ability to repay their obligations (Wijaya & Tiyas, 2016). Research conducted (Ndoka & Islami, 2016); (Marliana, 2019); (Munangi & Sibidi, 2020); (Rifkasari & Sparta, 2022); shows that NPL has a negative and significant effect on ROA. Meanwhile, research conducted (Siagian & Listiawati, 2022) shows that there is no influence between NPL and ROA. Meanwhile, research conducted (Aji & Manda, 2021) shows that NPL has a positive effect on ROA. The research conducted (Maroni & Simamora, 2020); (Saputri & Oetomo, 2016) shows that NPL has a negative and significant effect on ROE. Meanwhile, research conducted (Hemina & Suprianto, 2014) shows that NPL has an insignificant negative effect on ROE. Thus, the following hypothesis can be formulated:

H1: NPL has no effect on the ROA and ROE of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

The Effect of Market Risk (NIM) on Financial Performance (ROA) and (ROE)

Net Interest Margin (NIM) shows the bank's ability to generate net interest income through the placement of useful assets. The bank's ability to manage interest rate risk is assessed using NIM. Bank interest income and interest expenses will change as interest rates change. For example, when interest rates rise, some assets and liabilities will be valued at a higher level, resulting in an increase in interest income and interest costs (Rahim, 2014). Research conducted (Desiko, 2020); (Agustina, Sunarko, & Kurniasih, 2022) shows that NIM has a positive and significant effect on ROA. The research conducted by (Tantely, Sumani, & Singgih, 2016) and (Dwiwiyanto, 2009) shows that NIM has a significant positive effect on ROE. Thus, the following hypothesis can be formulated:

H2: NIM has no effect on PT Bank Negara Indonesia Tbk's ROA and ROE for the 2018-2022 period.

The Effect of Liquidity Risk (LDR) on Financial Performance (ROA) and (ROE)

The higher the LDR, the better the bank's liquidity conditions, when it is lower the bank is less successful in distributing credit. The amount of money diverted to third party funds increases with LDR. Large third party funds will boost bank income, so LDR will have a fairly large positive impact on ROA. (Wijaya & Tiyas, 2016). Research conducted (Silitonga & Manda, 2022); (Noor, 2022); (Capriani & Dana, 2016) shows that LDR has a positive but not significant effect on financial performance (ROA), while according to research (Siagian & Listiawati, 2022); (Aji & Manda, 2021) shows that LDR has no significant effect on ROA. The research conducted (Hemina & Suprianto, 2014) shows that LDR has an insignificant negative effect on ROE, while the research conducted (Maroni & Simamora, 2020); (Tantely, Sumani, & Singgih, 2016); (Dwiwiyanto, 2009) shows that LDR has a negative and significant effect on ROE. Thus, the following hypothesis can be formulated:

H3: LDR has no effect on ROA and ROE of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

The Effect of Operational Risk (BOPO) on Financial Performance (ROA) and (ROE)

BOPO (Operating Costs, Operational Income) is used to describe the level of efficiency of a bank in managing its operational costs towards business income. The smaller the BOPO shows the more efficient the bank is in carrying out its business activities. The higher the cost of income, the less efficient the bank becomes, so the ROA becomes smaller. In other words, BOPO is negatively related to bank performance so it is predicted that it will also have a negative effect on ROA (Wijaya & Tiyas, 2016). Research conducted (Arviana, 2016); (Al-Yatama, et al., 2020); (Siagian & Listiawati, 2022); (Wahidhani, 2022) shows that BOPO has a significant negative effect on ROA. The research conducted (Hemina & Suprianto, 2014) shows that BOPO has a positive effect on ROE, while the research conducted (Maroni & Simamora, 2020); (Tantely, Sumani, & Singgih, 2016); (Dwiwiyanto, 2009) shows that BOPO has a significant negative effect on ROE. Thus, the following hypothesis can be formulated:

H4: BOPO has no effect on ROA and ROE of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

The Effect of Credit Risk (NPL), Market Risk (NIM), Liquidity Risk (LDR) and Operational Risk (BOPO) simultaneously on Financial Performance (ROA) and (ROE)

In this research, the simultaneous influence of the independent variable on the dependent variable will be measured. Thus, the following hypothesis can be formulated:

H5: NPL, NIM, LDR and BOPO simultaneously have no effect on the ROA and ROE of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

Framework

In this research, a framework of thought was created as an illustration to find out how the variables under study influence, where the dependent variable in this research is financial performance using the Return on Assets (ROA) and Return on Equity (ROE) ratios. The independent variables in this research are bank risk analysis (credit risk (NPL), market risk (NIM), liquidity risk (LDR), operational risk (BOPO)). Each independent variable will be measured partially and simultaneously on how it influences the dependent variable. The following is the rationale for this research:

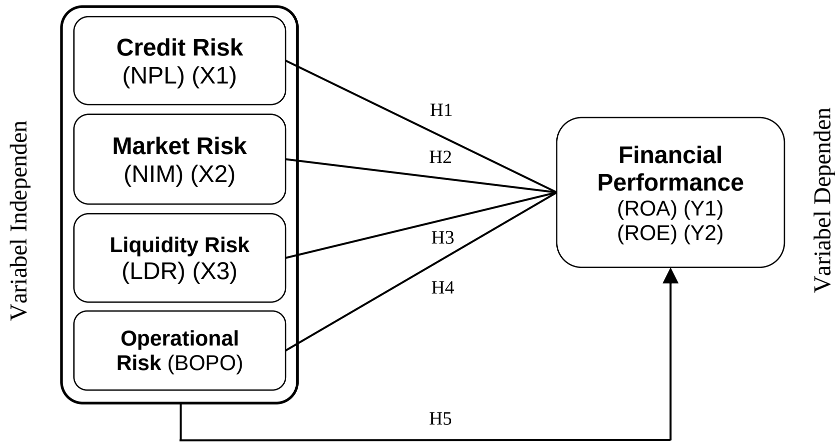

Image 1. Framework

3. RESEARCH METHODOLOGY

The research objects in this study include bank risk (credit risk (Net Performing Loan), market risk (Net Interest Margin), liquidity risk (Loan to Deposit Rate), operational risk (BOPO)), and financial performance (Return on Assets and Return on Equity). which was carried out at PT Bank Negara Indonesia, Tbk (BNI) in the 2018-2022 period. The research design uses descriptive analysis with a quantitative approach. In this research, the data source used is secondary data. Secondary data is in the form of BNI financial report data, sustainability reports, corporate presentations, articles, journals, books and other documents related to research.

Descriptive analysis was carried out to determine the average, maximum, minimum and standard deviation values of each variable. Next, classical assumption tests were carried out (normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test). Hypothesis testing is carried out using regression analysis (simple regression (t test) and multiple (F test)), correlation analysis and coefficient of determination.

Table 1. Operational Definition of Variables

Variable	Dimensi	Indikator	Skala
Bank Risk (X)	Credit Risk	Net Performing Loan (X_1)	(Total NPL / Total Credit) x 100%
	Market Risk	Net Interest Margin (X_2)	(IR – IE) / Average Earning Assets x 100%
	Liquidity Risk	Loan to Deposit Rate (X_3)	(Credits Given / Total Funds Received) x 100%
	Operational Risk	Operating Costs and Operating Income (X_4)	(Operating Cost / Operating Income) x 100%
Financial Performance (Y)	Return on Asset	Return on Asset (Y_1)	(Net Profit / Total Assets) x 100%
	Return on Equity	Return on Equity (Y_2)	(Net Profit / Shareholder Equity) x 100%

The regression model equation used in this research is as follows:

$$\mathbf{Y_1 = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4} \quad (7)$$

$$\mathbf{Y_2 = \alpha + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4} \quad (8)$$

Information :
$\mathbf{Y_1}$ = Dependent variable (ROA)
$\mathbf{Y_2}$ = Dependent variable (ROE)
$\boldsymbol{\alpha}$ = Constant number
$\mathbf{b_1}$ = Independent variable regression coefficient (x_1)
$\mathbf{b_2}$ = Independent variable regression coefficient (x_2)
$\mathbf{b_3}$ = Independent variable regression coefficient (x_3)
$\mathbf{b_4}$ = Independent variable regression coefficient (x_4)
$\mathbf{x_1}$ = Independent variable (NPL)
$\mathbf{x_2}$ = Independent variable (NIM)
$\mathbf{x_3}$ = Independent variable (LDR)
$\mathbf{x_4}$ = Independent variable (BOPO)

4. RESULT AND DISCUSSION

Description of Research Objects

The writing of the research is a case study research on PT Bank Negara Indonesia, Tbk during the period 2018-2022. The research was carried out by analyzing the dependent variable on financial performance using the Return on Asset (ROA) and Return on Equity (ROE) ratio approach, as well as analyzing the independent variable on bank risk using the Net Performing Loan (NPL) ratio approach for credit risk, Net Interest Margin (NIM) for market risk, Loan to Depost Ratio (LDR) for liquidity risk, and Operational Expenses to Operating Income (BOPO) for operational risk. This research uses secondary data in the form of financial reports by looking at the percentage of financial ratios.

Financial Performance: Return on Assets (ROA) (Y_1)

Financial Performance Variable with Return on Assets (ROA) Ratio (Y_1), calculating the value of net profit to the company's total assets. Analysis of BNI's financial performance data for the 2018-2022 period with the Return on Assets (ROA) ratio can be described as follows:
(1) In 2018, BNI's ROA was recorded at 2.80%, an increase compared to 2017 of 2.70% (0.1% YoY).
(2) In 2019, BNI's ROA was recorded at 2.40%, a decrease compared to 2018 of 2.80% (-0.4% YoY).
(3) In 2020, BNI's ROA was recorded at 0.50%, a decrease compared to 2019 of 2.40% (-1.9% YoY).
(4) In 2021, BNI's ROA was recorded at 1.40%, an increase compared to 2020 of 0.50% (0.9% YoY).
(5) In 2022, BNI's ROA was recorded at 2.50%, an increase compared to 2021 of 1.40% (1.1% YoY).

Financial Performance: Return on Equity (ROE) (Y_2)

Financial Performance Variable with Return on Equity (ROE) Ratio (Y_2), calculating the value of net profit against capital or shareholder equity. Analysis of BNI's financial performance data for the 2018-2022 period with the Return on Equity (ROE) ratio can be described as follows:
(1) In 2018, BNI's ROE was recorded at 16.10%, an increase compared to 2017 of 15.60% (0.5% YoY).
(2) In 2019, BNI's ROE was recorded at 14.00%, a decrease compared to 2018 of 16.10% (-2.1% YoY).
(3) In 2020, BNI's ROE was recorded at 2.90%, a decrease compared to 2019 of 14.00% (-11.1% YoY).
(4) In 2021, BNI's ROE was recorded at 10.40%, an increase compared to 2020 of 2.90% (7.5% YoY).
(5) In 2022, BNI's ROE was recorded at 14.90%, an increase compared to 2021 of 10.40% (4.5% YoY).

Credit Risk: Net Performing Loan (NPL) (X_1)

The Credit Risk Variable with the Net Performing Loan (NPL) Ratio (X_1), calculates the value of non-performing loans to total credit. Analysis of BNI credit risk data for the 2018-2022 period with the Net Performing Loan (NPL) ratio can be described as follows:
(1) In 2018, BNI's NPL was recorded at 0.80%, an increase compared to 2017 of 0.70% (0.1% YoY).
(2) In 2019, BNI's NPL was recorded at 1.20%, an increase compared to 2018 of 0.80% (0.4% YoY).
(3) In 2020, BNI's NPL was recorded at 0.90%, a decrease compared to 2019 of 1.20% (-0.3% YoY).
(4) In 2021, BNI's NPL was recorded at 0.70%, a decrease compared to 2020 of 0.90% (-0.2% YoY).
(5) In 2022, BNI's NPL was recorded at 0.50%, a decrease compared to 2021 of 0.70% (-0.2% YoY).

Market Risk: Net Interest Margin (NIM) (X_2)

Market Risk Variable with Net Interest Margin (NIM) Ratio (X_2), calculating the value of interest income minus interest expense on average productive assets. Analysis of BNI market risk data for the 2018-2022 period with the Net Interest Margin (NIM) ratio can be described as follows:
(1) In 2018, BNI's NIM was recorded at 5.30%, a decrease compared to 2017 of 5.50% (-0.2% YoY).
(2) In 2019, BNI's NIM was recorded at 4.90%, a decrease compared to 2018 of 5.30 (-0.4% YoY).
(3) In 2020, BNI's NIM was recorded at 4.50%, a decrease compared to 2019 of 4.90% (-0.4% YoY).
(4) In 2021, BNI's NIM was recorded at 4.70%, an increase compared to 2020 of 4.50% (0.2% YoY).
(5) In 2022, BNI's NIM was recorded at 4.80%, an increase compared to 2021 of 4.70% (0.1% YoY).

Liquidity Risk: Loan to Deposit Ratio (LDR) (X_3)

The Liquidity Risk Variable with the Loan to Deposit Ratio (LDR) (X_3), calculates the value of credit given to the total funds received. Analysis of BNI liquidity risk data for the 2018-2022 period with the Loan to Deposit Ratio (LDR) ratio can be described as follows:
(1) In 2018, BNI's LDR was recorded at 88.80%, an increase compared to 2017 of 85.60% (3.2% YoY).
(2) In 2019, BNI's LDR was recorded at 91.50%, an increase compared to 2018 of 88.80% (2.7% YoY).
(3) In 2020, BNI's LDR was recorded at 87.30%, a decrease compared to 2019 of 91.50% (-4.2% YoY).
(4) In 2021, BNI's LDR was recorded at 79.70%, a decrease compared to 2020 of 87.30% (-7.6% YoY).
(5) In 2022, BNI's LDR was recorded at 84.20%, an increase compared to 2021 of 79.70% (4.5% YoY).

Operational Risk: Operating Expenses to Operating Income (BOPO) (X_4)

The BOPO variable (X_4), calculates the value of operational expenses against operational income. Analysis of BNI operational risk data for the 2018-2022 period with the ratio of Operational Expenses to Operational Income (BOPO) can be described as follows:

(1) In 2018, BNI's BOPO was recorded at 70.20%, a decrease compared to 2017 of 71.0% (-0.8% YoY).
(2) In 2019, BNI's BOPO was recorded at 73.20%, an increase compared to 2018 of 70.20% (3.0% YoY).
(3) In 2020, BNI's BOPO was recorded at 93.30%, an increase compared to 2019 of 73.20% (20.1% YoY).
(4) In 2021, BNI's BOPO was recorded at 81.20%, a decrease compared to 2020 of 93.30% (-12.1% YoY).
(5) In 2022, BNI's BOPO was recorded at 68.60%, a decrease compared to 2021 of 81.20% (-12.6% YoY).

Discussion of Research Results

The Effect of Credit Risk (NPL) on Financial Performance (ROA and ROE)

Based on the results of simple regression analysis testing, results were obtained which showed that there was a negative relationship between NPL with ROA and ROE. Based on the results of correlation analysis and partial coefficient of determination, it shows that there is a very low correlation between NPL with ROA and ROE, with an influence contribution of 0.10% (ROA) and 2% (ROE). Based on the results of partial hypothesis testing, the results of X_1 (NPL) against Y_1 (ROA) show a value of $t_{count} < t_{table}$ (-0.160 < 2.119), with Sig value. (0.875 > 0.05), and the results of X_1 (NPL) against Y_2 (ROE) show the value of $t_{count} < t_{table}$ (-0.598 < 2.119), with Sig value. (0.557 > 0.05). This shows that Ho is accepted, which means Net Performing Loan (NPL) has no effect on Return On Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

The Effect of Market Risk (NIM) on Financial Performance (ROA and ROE)

Based on the results of simple regression analysis testing, results were obtained which showed that there was a positive relationship between NIM with ROA and ROE. Based on the results of correlation analysis and partial coefficient of determination, it shows that there is a strong correlation between NIM with ROA and ROE, with an influence contribution of 50.70% (ROA) and 41.30% (ROE). Based on the results of partial hypothesis testing, the results of X_2 (NIM) against Y_1 (ROA) show the value of $t_{count} > t_{table}$ (4.306 > 2.119), with Sig value. (0.000 < 0.05), and the results of X_2 (NIM) against Y_2 (ROE) show the value of $t_{count} < t_{table}$ (3.558 > 2.119), with Sig value. (0.002 < 0.05). This shows that Ho is rejected, which means Net Interest Margin (NIM) has a significant positive effect on Return On Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

The Effect of Liquidity Risk (LDR) on Financial Performance (ROA and ROE)

Based on the results of simple regression analysis testing, results were obtained which showed that there was a positive relationship between LDR with ROA and ROE. Based on the results of correlation analysis and partial coefficient of determination, it shows that there is a moderate correlation between LDR with ROA and ROE, with an influence contribution of 29.90% (ROA) and 20.80% (ROE). Based on the results of partial hypothesis testing, the results of X_3 (LDR) against Y_1 (ROA) show the value of $t_{count} > t_{table}$ (2.774 > 2.119), with Sig value. (0.013 < 0.05), and the results of X_3 (LDR) against Y_2 (ROE) show the value of $t_{count} > t_{table}$ (2.172 > 2.119), with Sig value. (0.043 < 0.05). This shows that Ho is rejected, which means the Loan to Deposit Ratio (LDR) has a significant positive effect on Return On Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period..

The Effect of Operational Risk (BOPO) on Financial Performance (ROA and ROE)

Based on the results of simple regression analysis tests, results were obtained which showed that there was a negative relationship between BOPO with ROA and ROE. Based on the results of correlation analysis and partial coefficient of determination, it shows that there is a very strong correlation between BOPO with ROA and ROE, with an influence contribution of 92.40% (ROA) and 96.70% ROE. Based on the results of partial hypothesis testing, the results of X_4 (BOPO) against Y_1

(ROA) show a value of $t_{count} < t_{table}$ (-14.809 < 2.119), with Sig value. (0.000 < 0.05), and the results of X_4 (BOPO) against Y_2 (ROE) show the value of $t_{count} < t_{table}$ (-22.952 < 2.119), with Sig value. (0.000 < 0.05). This shows that Ho is accepted, which means that Operational Expenses to Operational Income (BOPO) does not have a significant effect on Return On Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

Simultaneous Effect of Credit Risk (NPL), Market Risk (NIM), Liquidity Risk (LDR) and Operational Risk (BOPO) on Financial Performance (ROA and ROE)

Based on the results of multiple regression analysis testing, results were obtained which showed that there was a positive relationship between NIM and LDR on ROA and ROE, while there was a negative relationship between NPL and BOPO on ROA and ROE. Based on the results of simultaneous correlation analysis and coefficient of determination, it shows that there is a very strong correlation between NPL, NIM, LDR, BOPO and ROA and ROE, with an influence contribution of 97.4% (ROA) and 98% (ROE). Based on the results of simultaneous hypothesis testing, the results of X (NPL, NIM, LDR, BOPO) against Y_1 (ROA) shows the value of $F_{count} > F_{table}$ (138.15 > 2.96), with Sig value. (0.000 < 0.05), and the results of X (NPL, NIM, LDR, BOPO) against Y_2 (ROE) shows the value of $F_{count} > F_{table}$ (187.48 > 2.96), with Sig value. (0.000 < 0.05). This shows that Ho is rejected, which means Net Performing Loan (NPL), Net Interest Margin (NIM), Loan to Deposit Ratio (LDR) and Operational Expenses to Operating Income (BOPO) simultaneously have a significant positive effect on Return On Assets (ROA). and Return On Equity (ROE) of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

Managerial Implications

The results of the analysis in this study show that Credit Risk with Net Performing Loans (NPL) and Operational Risk with Operational Expenses on Operating Income (BOPO) do not have a significant effect on either Return on Assets (ROA) or Return on Equity (ROE), while Market Risk with Net Interest Margin (NIM) and Liquidity Risk with Loan to Deposit Ratio (LDR) have a significant effect on both Return on Assets (ROA) and Return on Equity (ROE) of PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

Credit Risk with Net Performing Loans (NPL) has a negative relationship to BNI's ROA and ROE, where an increase in the NPL value will be followed by a decrease in the ROA and ROE values. The high percentage of NPLs in a bank is one of the causes of banks experiencing difficulty in redistributing credit. Banks must still maintain the NPL percentage below 5% in accordance with Bank Indonesia regulations. In this case, BNI during the 2018-2022 period has kept its NPL percentage below 5%, however BNI must continue to maintain and improve its problem loans by improving credit quality, credit processes and ensuring more careful (prudent) credit distribution . In rescuing problem loans, there are 3 ways that can be done in accordance with the provisions of POJK number 33/POJK.03/2018, namely Restructuring, Rescheduling and Reconditioning.

Market Risk and Net Interest Margin (NIM) have a positive relationship with BNI's ROA and ROE, where an increase in the NIM value is also followed by an increase in the ROA and ROE values. The high percentage of NIM in a bank illustrates the profitability or profit margin that occurs. In this case, BNI during the 2018-2022 period in terms of NIM percentage experienced fluctuating decreases and increases, a significant decrease occurred in 2020 due to the Covid-19 pandemic, and increased again in 2021-2022. This illustrates the existence of market conditions (rising interest rates, valuation of bank assets and liabilities at a higher level) that occur where banks in this case must be able to overcome these fluctuating changes. The higher the level of market competition, the lower the NIM value, and vice versa. To maintain the NIM percentage, BNI has made various efforts, one of which is by improving credit quality through risk management, increasing digital capability in meeting customer needs, increasing cheap funds / CASA, and commission income through increasing transactions.

Liquidity Risk with Loan to Deposit Ratio (LDR) has a positive relationship to BNI's ROA and ROE, where an increase in the NPL value is also followed by an increase in the ROA and ROE values. High liquidity can attract investors, illustrate the company's ability to finance operational needs and activities, and show that the company is financially healthy. Banking liquidity at the end of 2022 is expected to remain maintained, especially supported by growth in deposits which continues to record satisfactory performance amidst the post-COVID-19 economic recovery. In maintaining liquidity levels, BNI strives to continue to increase selective business expansion and provide sustainable financial solutions through corporate segment credit expansion that focuses on Top Tier priority sectors, as well as initiating green financing to support initiatives to implement sustainable finance. Business expansion is also carried out in the Micro, Small and Medium Enterprises (MSME) segment, especially MSMEs from the corporate value chain in leading sectors.

Operational Risk with Operational Expenses to Operating Income (BOPO) has a negative relationship to BNI's ROA and ROE, where an increase in BOPO will be followed by a decrease in ROA and ROE values. This illustrates that the increase in operational costs has an impact on reducing the company's capital and assets. During the 2018-2022 period, the BOPO percentage experienced fluctuating decreases and increases, a significant increase occurred in 2020 during the Covid-19 pandemic. Several things that can be done to reduce operational costs and efficiency include implementing relaxation based on OJK regulations in the form of credit restructuring which means that banks do not need to reduce the quality of restructured loans. Apart from that, due to the pandemic, there is no need for banks to form reserves for credit impairment losses (CKPN), so that operational costs do not increase. Apart from that, improving the quality and expansion of the company's business as well as maintaining a positive JAWS ratio needs to be done so that the growth in operational income is above the growth in operational costs.

5. CONCLUSION AND RECOMMENDATIONS

Conclusions

The bank risk consists of credit risk (measured by Net Performing Loans/NPL), market risk (measured by Net Interest Margin/NIM), liquidity risk (measured by Loan to Deposit Ratio/LDR), and operational risk (Operating Expenses to Operating Income/BOPO), and its influence on financial performance (measured by Return On Assets/ROA and Return On Equity/ROE) at the company PT Bank Negara Indonesia, Tbk during the 2018-2022 period, shows the results:

(1) Credit risk with the Net Performing Loan (NPL) indicator has no effect on Return on Assets (ROA) and Return on Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

(2) Market risk with the Net Interest Margin (NIM) indicator has a significant positive effect on Return on Assets (ROA) and Return on Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

(3) Liquidity risk with the Loan to Deposit Ratio (LDR) indicator has a significant positive effect on Return on Assets (ROA) and Return on Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

(4) Operational risk with the Operational Expenses to Operational Income (BOPO) indicator does not have a significant effect on Return on Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period.

(5) Simultaneously, credit risk with the Net Performing Loan (NPL) indicator, market risk with the Net Interest Margin (NIM) indicator, liquidity risk with the Loan to Deposit Ratio (LDR) indicator, and operational risk with the Operational Expenses to Operating Income indicator (BOPO) has a significant positive effect on Return on Assets (ROA) and Return On Equity (ROE) at PT Bank Negara Indonesia, Tbk for the 2018-2022 period

Recommendations

Recommendations for this research include the following:

(1) This research can be a reference for further research to develop research using other variables that can influence bank performance and bank risk under study, whether research at PT Bank Negara Indonesia, Tbk, or research at other banks or other companies.

(2) The analysis method in this research uses linear regression analysis. It is recommended that future research be able to strengthen the analysis or use other analysis methods such as using questionnaire data, conducting survey analysis, risk analysis by providing scoring index values and others to find results from an angle. different views on the research variables carried out.

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