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RESEARCH ARTICLE

Bank Performance Improvement Strategy Based on Empirical Analysis of Bank Fundamentals, Macroeconomic Factors, NPL, and Monetary Policy

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ABSTRACT

Bank Jambi is a regional bank that gets its capital from the provincial, city and district governments through the Regional Budget (APBD). The purpose of this study was to analyse the effect of bank fundamental factors and macroeconomic factors on strategies to improve the performance of Bank Jambi, using Non Performing Loan (NPL) as a mediating variable and monetary policy as a moderator variable. The data in the study used secondary data and were analyzed using Structural Equation Modelling (SEM) based on partial least squares path modeling (PLS-SEM). The results showed that bank fundamental factors and macroeconomic factors had a significant effect on the performance of Jambi Bank. The NPL variable can mediate the influence of bank fundamental factors and macroeconomic factors. This study concludes that the strategy to improve Bank Jambi's performance lies in efficiency in the company's operational activities, because BOPO (Operating Costs to Operating Income) contributes the highest influence on NPLs and Bank Jambi's performance. In addition, fee-based income, income from business activities, and macroeconomic factors are important aspects that should be considered, along with partnerships with various financial service providers, both banks and non-banks, in an effort to improve bank performance.

INTRODUCTION

Bank Daerah Jambi is different from other commercial banks in terms of capital injection that has not been opened and the policies and strategies carried out. The function of this Bank is to encourage economic growth in the Region, especially for small and medium-sized communities because it can provide credit or financing at lower interest rates compared to conventional banks. Banks are essential to economic growth (Chen & Sivakumar, 2023). At the macroeconomic level, banks can provide for the needs of the domestic economy in the form of provision and management, maintaining the stability of currency values, and controlling the circulation of money (Ren et al., 2023). The role of banks in economic growth can be seen in the distribution of credit to various economic sectors in all regions (Ho & Saadaoui, 2022). Meanwhile, at the microeconomic level, banks are the primary source of financing for small businesses and some people in need, making banks have an intermediary function (Berger & Udell, 1998) (Braunerhjelm, 2022). In order for a bank to carry out its intermediary function properly, the Bank must be able to maintain stability and increase its level of profitability (Le, 2020).

The emergence of the Covid-19 pandemic has put pressure on the entire banking industry (Perwej, 2020), including Indonesia. This condition makes it difficult for banks to continue to grow and increase their competitiveness because the financial sector is the most sector affected by the Covid-19 pandemic, apart from other sectors such as; manufacturing, tourism, transportation, retail, agriculture, and others (Ceylan & Ozkan, 2020). Negative impacts of Covid-19 on the performance of the banking industry are seen in the decline in bank profitability (Gazi et al., 2022), which has been evident since the second quarter of 2020. From April to June 2020, banking profits before tax decreased 19.8% from the previous year. Based on data published by the Financial Services Authority (OJK), as of September 2020, bank profits have fallen by 27 6% yearly (yoy). The decline in profit was higher than in August 2020, which was 18.26% (yoy). Amid a decline in profit, operating expenses to operating income as of September 2020 rose to 86.18% from 85.09% the previous month.

The decline in bank performance during Covid-19 was an increase in non-performing loans (NPL) as a proxy. The greater the NPL, the greater the risk of failure of the credit extension, which has the potential to reduce interest income and lower profits (Kumar & Sarker, 2021). The loss of the opportunity to earn profits from bad loans affects the planned profit projections, directly affecting profits (Linh et al., 2020). Banks with Non-Performing Loans that exceed the standards set by Bank Indonesia will cause a decrease in profits earned because the higher the Non-Performing Loan, the worse the credit quality, which causes the number of problem loans to increase (Muhammad et al., 2020). Bank suffers losses in its operational activities, which affect the decrease in profits earned by the Bank, so NPL has a negative and significant effect on profitability.

Bank Jambi, as one of the Local state-owned enterprises belonging to the regional government of Jambi Province, has performed exceptionally well in maintaining credit risk during the Covid 19 pandemic. Based on Bank Jambi's NPL ratio data for the 2017-2021 period, the average value of the net NPL ratio per year is 0.26%. Judging from its development, the value of Bank Jambi's NPL ratio tends to increase throughout 2017-2021. In 2020 there was a decrease in the NPL ratio of 0.15%, which increased in 2021 by 0.83%.In 2018 there was an increase in net NPL of 0.01%. Then in 2019, there was an increase in net NPL of 0.29%. In 2020 net NPL decreased by 0.06%. Then in 2021, there will be an increase in net NPL of 0.02%.

This research is directed at examining bank profitability and Non-Performing Loan (NPL), including the factors that determine it, in order to test the stability of the relationship between bank fundamental factors (such as Loan to Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), and Operating Expenses to Operating Income (BOPO)) and macroeconomic factors (inflation, Gross Domestic Product (GDP), and exchange rate) on NPL, as well as the impact of NPL on profitability. The motivation for this research comes from the gaps identified from the results of previous studies. Through the chosen research model, this study aims to identify the determinants of NPLs, both from the fundamental aspects of the bank and macroeconomic factors, so that the findings of this study are expected to provide insight into effective credit risk mitigation strategies based on fundamental and macroeconomic analysis to improve the Bank performance.

LITERATURE REVIEW

Banks hold significant importance within a nation's financial system and play a crucial role in the global economy (Marcu, 2021). If there are issues with the proper functioning of the financial system, it will significantly impact the overall economy. Due to this, policymakers, regulators, academics, and practitioners show great concern regarding the well-being and stability of the banking sector in every country (Rabbani et al., 2021). The successful execution of their intermediary role is vital for banks, so they must maintain stability and enhance their profitability levels (Banke & Yitayaw, 2022). This will enable banks to ensure continuous operations and foster public trust (Hairunnisa et al., 2021).

Fluctuations in bank profitability can be influenced by various factors, one of which is the primary concern on Non-Performing Loans (NPLs) (Alnabulsi et al., 2022). The greater the level of NPL at a bank, the greater the risk of credit failure, which has the potential to reduce interest income and lower profits (Priyadi et al., 2021). The loss of opportunity to earn profits from bad loans affects the planned profit projections and directly affects profits (Dang et al., 2020).

The causes of NPL fluctuations experienced by conventional commercial banks, primarily regional development banks, from various literature and previous research are grouped into two factors. The first factor is a factor that comes from the internal Bank itself, where the Bank can control this factor. This factor is known or termed a fundamental bank factor, which can be used to determine a bank's condition (performance) of a bank through the financial ratios of a bank (Haddawee et al., 2020). NPL determination in terms of fundamental factors which are generally widely studied, namely; bank size, Loan Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), and Operating Expenses to Operating Income (BOPO) (Komang et al., 2020).

The increased risk of non-performing loans at conventional commercial banks, primarily regional development banks, can be caused by the instability of various macroeconomic factors (Gulati et al., 2023; Mateev et al., 2022). Any pressure from macroeconomic factors is a source of systemic risk that affects the performance of the banking sector, which is expressed as NPL risk to total credit. Various previous studies have revealed that a country's deteriorating economic development will be able to increase non-performing bank loans. On the contrary, when the economy improves, the NPL level of bank credit decreases (Mvk & Maitra, 2023; Naili, 2022). Determination of NPL in terms of macroeconomic factors are generally widely studied, namely, inflation, gross domestic product (GDP), interest rates, and exchange rates (exchange rates) (Naili, 2022; Rashid & Jabeen, 2016).

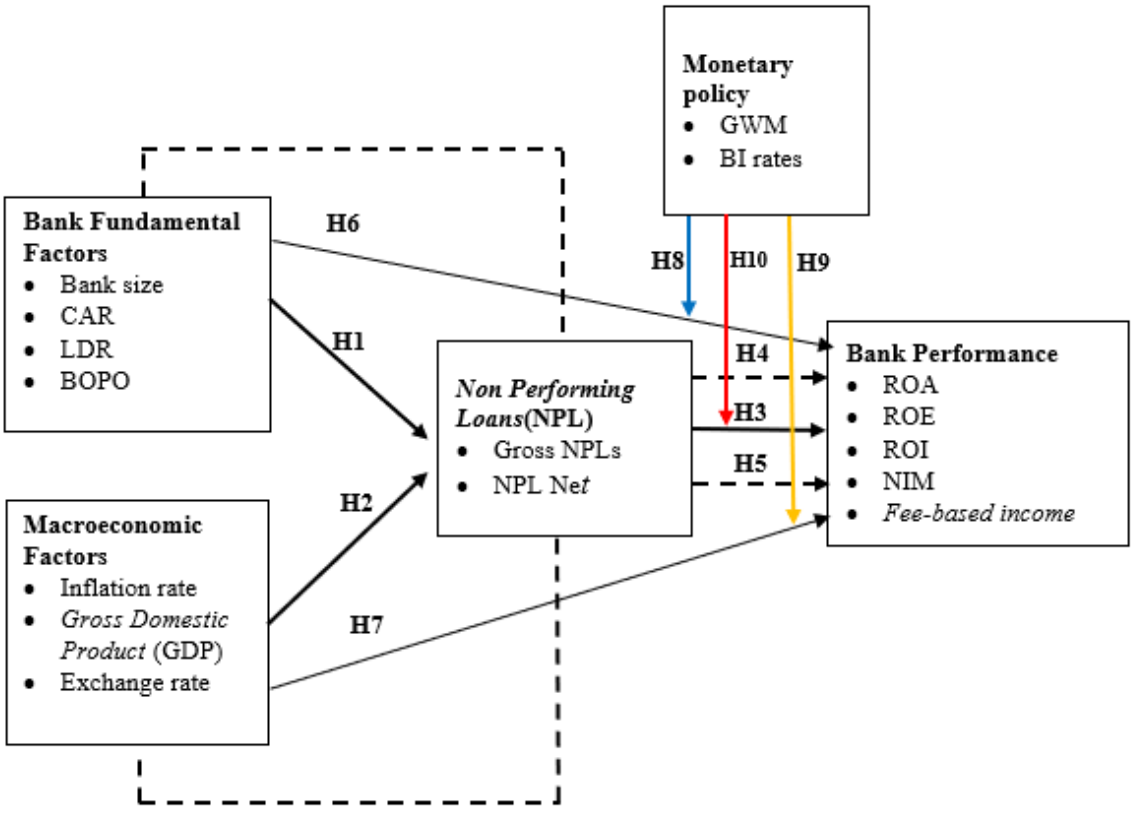

Figure 1: **Research Framework**

Information:

: direct influence (direct effect)

: Indirect effect (indirect effect)

: The moderating effect of monetary policy on the influence of relationship a direct relationship between fundamental bank factors and bank performance

: The moderating effect of monetary policy on the influence of relationship directly between macroeconomic factors on bank performance

: The moderating effect of monetary policy on the influence of relationship directly between NPL and bank performance

Hypothesis

1. H1 = Bank fundamental factors have a significant effect on Bank Jambi's Non-Performing Loans (NPL)
2. H2 = Macroeconomic factors have a significant effect on Bank Jambi's Non-Performing Loans (NPL)
3. H3 = Non-Performing Loans (NPL) significantly affect the Bank's performance.
4. H4 = Bank fundamental factors indirectly significantly affect the performance of the Bank through Non-Performing Loans (NPL).
5. H5 = Macroeconomic factors indirectly have a significant effect on the performance of the Bank.
6. H6 = Bank fundamental factors significantly affect the performance of the Bank.
7. H7 = Macroeconomic factors have a significant effect on the performance of the Bank.

RESEARCH METHODS

Data collection

This type of research is quantitative research. According to Sekaran & Bougie (2016), quantitative research is a scientific or scientific method because it fulfills scientific principles, namely concrete or empirical, objective, measurable, rational, and systematic. The design of this study is in line with the purpose of this study, which is to determine the effect of bank fundamental factors and macroeconomic factors on Non-Performing Loans (NPL), as well as the effect of NPL on Bank Jambi's performance for 2017-2021 period, which is moderated by monetary policy variables.

The type of data used in this research is secondary data that includes; (1) financial ratio data published by Bank Jambi, including; Non Performing Loan (NPL), Capital Adequacy Ratio (CAR), Loan Deposit Ratio (LDR), Operating Expenses to Operating Income (BOPO), Return on Assets (ROA), Return on Equity (ROE), Return on Investment (ROI), Net Interest Margin (NIM), and fee-based income, (2) data published by the Central Statistics Agency and Bank Indonesia, including; inflation rate, BI rate, Gross Domestic Product (GDP), exchange rates, and Statutory Reserves (GMW), as well as the results of previous research published in journals or articles with research topics relevant to this research. The primary data sources in this study are the financial statements and annual reports published by Bank Jambi, the Central Bureau of Statistics, and Bank Indonesia.

Measurement model

Based on the formulation of the problem and the proposed hypothesis, the variables examined in this study are grouped into four variables, independent variables (exogenous variables), dependent variables (endogenous variables), intervening variables, and moderating variables. The independent variables included in this study are (1) bank fundamental factor variable (X1) which is proxied by

four dimensions, bank size, Capital Adequacy Ratio (CAR), Loan to Deposit Ratio (LDR), and Operating Expenses to Operating Income (BOPO), and (2) macroeconomic factor variables (X2) which are proxied by three dimensions inflation rate, Gross Domestic Product (GDP), and exchange rates. While the dependent variable in this study is bank performance (Y) which is proxied by four dimensions, namely, Return on Assets (ROA), Return on Equity (ROE), Return on Investment (ROI), and Net Interest Margin (NIM). The intervening variable or mediating variable in this study is Non-Performing Loan (NPL) (Z) which is proxied by two dimensions: gross NPL and net NPL. The moderating variable in this study is monetary policy (M), which is proxied by two dimensions, namely; BI rates and The intervening variable or mediating variable in this study is Non-Performing Loan (NPL) (Z) which is proxied by two dimensions, namely: gross NPL and net NPL. The moderating variable in this study is monetary policy (M), which is proxied by two dimensions, namely; BI rates and The intervening variable or mediating variable in this study is Non-Performing Loan (NPL) (Z) which is proxied by two dimensions, namely: gross NPL and net NPL. The moderating variable in this study is monetary policy (M), which is proxied by two dimensions, namely, BI rates and minimum Statutory Reserves (GWM).

Table 1: Operational Variables

Variable	Dimensions	Formula
Bank Fundamental Factors (X1)	Bank Size	Ln Total Assets
	Capital Adequacy Ratio (CAR)	$\frac{\text{Capital}}{\text{Risk}}$
	Loan to Deposit Ratio (LDR)	$\frac{\text{Credit}}{\text{Third-party funds}}$x100%
	Operating Expenses to Operating Income (BOPO)	$\frac{\text{Operating costs}}{\text{Operating Income}}$x100%
Macroeconomic Factors (X2)	Inflation rate	$\frac{IHK_t - IHK_{t-1}}{IHK_{t-1}}$x100% Information: • IHKt = Consumer price index month "t" • IHKt-1 = Consumer price index in the previous month
	Gross Domestic Product (GDP)	Gross Value Added at Base Price + Tax Fewer Subsidies on Products
	Exchange rates	$\frac{\text{Selling Rate} + \text{Purchase Rate}}{2}$
Non-Performing Loans (Z)	Gross NPLs	$\frac{\sum KKL+KD+KM}{\text{Total Credit Distributed}}$x100% Information: • KKL = Credit is less current • KD = Doubtful credit • KM = bad credit
	Net NPLs	$\frac{\text{Total Bad Credit}}{\text{Total Credit Distributed}}$x100%
Monetary Policy (M)		

	Statutory Reserves (GWM)	For GWM Rupiah, it is set at 9% of DPK (Regulation of Members of the Board of Governors Number 24/8/PADG/2022)
Performance (Y)	Return on Assets (ROA)	$\frac{\text{Earning Before Tax}}{\text{Total Asset}}$x100%
	Return on Equity (ROE)	$\frac{\text{Earnings After Tax}}{\text{Total Equity}}$x100%
	Return on Investment (ROI)	$\frac{\text{Earnings After Tax}}{\text{Total Asset}}$x100%
	Net Interest Margins (NIM)	$\frac{\text{Net interest income}}{\text{average Earning Assets}}$x100%

The data analysis method used analytical tools partial least squares–structure equation modeling (PLS-SEM). This method develops the covariance-based structural equation modeling (CB-SEM), which is more goal-oriented to predict the relationship between variables in the research model (Ghozali & Latan, 2015). This study used PLS-SEM to test the effect of variable bank fundamental and macroeconomic factors on bank performance, with Non-Performing Loans (NPL) as a mediating variable and monetary policy as a moderating variable. The analysis model for all variables in the PLS consists of two forms of relationships: (1) the inner model, namely the model that specifies the relationship between variables, or in SEM, it is called the structural model. (2) the outer model specifies the relationship between variables and their indicators, or in SEM, it is called a measurement model (Ghozali & Latan, 2015).

DATA ANALYSIS AND RESULTS

The first validity test to be carried out is to test the validity of the variables and indicators in the study, namely the Convergent Validity test.

Measurement model analysis

Table 2: Convergent Validity Test Results and Validity and Reliability test

Variabel	Indicator	Loading	CR	α	AVE
Bank Fundamental Factors(X1)	Bank Size	0.865	0.924	0.877	0.803
	CAR	0.912			
	LDR	0.910			
Macroeconomic Factors(X2)	BOPO	0.946	0.962	0.941	0.895
	Inflation rate	0.954			
	GDP	0.938			
Monetary policy(M)	BI rates	0.913	0.892	0.759	0.805
	GWM	0.881			
NPL (Z)	Gross NPLs	0.962	0.960	0.917	0.923
	Net NPLs	0.960			
Financial Performance (Y)	ROA	0.801	0.889	0.812	0.728
	ROE	0.884			
	ROI	0.872			

Source: ResultsSmartPLS 3.0 data processing, 2023

Based on the results of the factor loading analysis, it was found that there were three indicators that have a factor loading value of <0.60, which is an indicator; X1D (Loan to Deposit Ratio (LDR), Y4 (Return on Investment (ROI)), and Y5 (fee-based income). To follow up on this indicator, then removed or eliminated from the measurement model, then tested the outer model again to assess the feasibility of the model as a whole in order to provide accurate measurement results and be able to reflect latent variables. After measuring convergent validity, then discriminant validity was measured.

Based on the AVE value, each construct variable shows a value greater than 0.500, meaning each construct variable has good discriminant validity. The internal consistency reliability test is measured by two criteria, namely composite reliability and Cronbach alpha from the indicator block that measures variables. The construct is declared reliable if the composite reliability and Cronbach alpha values exceed 0.70 (Hair et al., 2018). Referring to the results of testing convergent validity, discriminant validity, and internal consistency reliability on the outer model can be stated that this model has fulfilled the three testing criteria so that it can proceed to the hypothesis testing stage on the inner model.

Inner Model Test Results

Based on the results of calculating the R-square value, it was found that the influence model between fundamental bank factors and macroeconomic factors on bank performance, through Non-Performing Loans(NPL) and moderated by monetary policy, found the R-square value is 0.863, which can be interpreted that the dimensions reflect the financial performance variable; Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) can be explained by bank fundamental factor variables, macroeconomic factors, Non-Performing Loans (NPL), and monetary policy 86.3%. In comparison, 13.7% is explained by other variables not observed in this study.

Structural model analysis

Influence of Bank Fundamental Factors and Macroeconomic Factors on Financial Performance through Non-Performing Loans (NPL)

Testing this hypothesis aims to see the significance of direct and indirect effects between Bank fundamental and macroeconomic factors on financial performance through Performing Loans(NPL)at the significance level α = 0.5% (0.05). The results of testing the direct effect and indirect influence obtained from the path coefficients table can be seen in Table 3 and Table 4 following:

Table 3: Path Coefficients (Direct Effects)

	Original sample	Sample Means	Standard Error	T Statistics	P Value	Result
Bank Fundamental Factors → Non-Performing Loans (NPL)	0.672	0.669	0.106	6,315	0.000	Supported
Macroeconomic Factors → Non-Performing Loan (NPL)	0.190	0.186	0.100	1,892	0.059	Not Supported
Non-Performing Loans(NPL)→ Bank Financial Performance	0.811	0.817	0.044	18,510	0.000	Supported

Source: Results of SmartPLS 3.0 data processing, 2023

The direct effect between bank fundamental factors and Non-Performing Loans (NPLs) produces bank fundamental factors with Non-Performing Loans (NPL) is significant, directly influencing macroeconomic factors to Non-Performing Loans(NPL) not significant. The effect of NPL on financial performance is positive and significant.

Table 4: Path Coefficients Indirect effects

	Original sample	Sample Means	Standard Error	T Statistics	P Value	Result
Bank Fundamental Factors → NPL → Bank Financial Performance	0.272	0.274	0.089	3,065	0.002	Supported
Macroeconomic Factors → NPL → Bank Financial Performance	0.074	0.075	0.047	1,574	0.116	Supported

Source: Results of SmartPLS 3.0 data processing, 2023

The indirect effect between bank fundamental factors on bank financial performance mediated by NPL, Indirect effect between macroeconomic factors on bank financial performance mediated by NPL showed a positive and insignificant effect.

Influence of Bank Fundamental Factors, Macroeconomic Factors, and Non-Performing Loans (NPL) on Bank Financial Performance Moderated by Monetary Policy

Testing this hypothesis aims to see whether monetary policy can significantly moderate the influence of the relationship between bank fundamentals, macroeconomic factors, and NPLs on a bank's financial performance. The results of testing the moderating effect of monetary policy variables obtained from the path coefficients table can be seen in Table 5 below:

Table 5: Moderation Effect

	Original Sample	Sample Means	Standard Error	T Statistics	P Value	Result
Direct Effects						
X1→Y	0.193	0.245	0.176	1.095	0.274	Not Supported
X2→Y	0.013	0.023	0.103	0.129	0.897	Not Supported
Z→Y	0.811	0.817	0.044	18,510	0.000	Supported
Moderating Effects						
M→Y	0.413	0.353	0.138	2,995	0.003	Supported
X1*M→Y	0.453	0.439	0.176	2,570	0.010	Supported
X2*M→Y	-0.067	-0.089	0.104	0.640	0.522	Not Supported
Z*M→Y	-0.509	-0.426	0.215	2,369	0.018	Supported

Source: Results of SmartPLS 3.0 data processing, 2023

DISCUSSION

The path analysis shows three dimensions reflecting fundamental factor (BOPO) variables that contribute the most influence to changes in the level of NPL variables. BOPO measures the level of efficiency and ability of a bank to carry out operational activities (Chernobai et al., 2021). The greater the cost can encourage banks to increase interest rates so that debtors have difficulty returning

funds. Conversely, a lower BOPO value indicates a bank that is more efficient and less likely to experience problematic conditions. Bank size significantly affects Bank Jambi's Non-Performing Loan (NPL). The size of the Bank will affect the low NPL or non-performing loans because the greater the assets or assets owned by a bank, the greater the volume of credit extended by the Bank. The large volume of credit will allow banks to reduce the spread rate, thereby facilitating credit payments and reducing non-performing loans (NPL) (Falagiarda & Köhler-Ulbrich, 2021).

Inflation is insignificant to NPL because the policy of lowering interest rates is consistent with inflation forecasts remaining low within the target range and under control to support macroeconomic stability (Coenen et al., 2021). As a result, the impact of inflation on NPLs is not significant. The benchmark interest rate (BI rate) increases to suppress inflation and increase deposit and lending rates. This condition encouraged people to save their money in banks and refrain from making credit loans, which impacted increasing third-party funds and maintaining credit risk stability (NPL) in banks will be followed by a decrease in the price of goods and services, which is expected to increase people's purchasing power. With the increase in purchasing power, it will undoubtedly have an impact come of business actors, and the ability of business actors to repay credit also increases, such as the results of research by (Raza et al., 2021), which prove that inflation has no significant effect on NPL.

The effect of GDP on NPL, as found in this study, is in line with the results of previous research (Foglia, 2022), proving that GDP has a negative and significant effect on NPL. The enormous volume of credit disbursed by Bank Jambi is a type of consumer credit. This type of credit comes from customers who work as civil servants. The consumer credit installment payment from Civil Servant (ASN) customers comes from deducting the ASN salary because ASN salary payments also go through Bank Jambi. As it is known that ASN salaries or income tend to be fixed and are not affected by macroeconomic conditions,

The effect of the exchange rate on NPL is significant because relatively short-term exchange rate changes, so this situation does not disrupt the business customer runs; therefore, changes in the rupiah exchange rate do not affect the customer's ability to pay creditors. Previously explained that the majority of Bank Jambi's debtors come from the ASN group, where their income tends to be stable and not affected by macroeconomic conditions, so even though exchange rates fluctuate (up or down), it will not affect the ability of debtors (ASN group customers) to pay their loan installments, so that the quality of bad loans (NPL) is maintained stably.

Based on the results of testing the hypothesis in this study, it proves that Non-Performing Loans (NPL) have a significant effect on the financial performance of Jambi Bank, which is proxied by the profitability ratios (ROA, ROE, and NIM). Katusiime (2021) proves that NPL negatively and significantly affects bank profitability. Non-Performing Loans (NPL) of a bank continue to increase, and it will affect bank capital because the Bank must provide funds to meet the allowance for earning assets that are formed. Bank capital that should have been used for other investments was reduced because the formation of PPAP will decrease the profit (profit) earned by the Bank. The results of the research by (Amir & Choudhury, 2023) reveal that the greater the NPL, the greater the risk of failure of the credit extension, which has the potential to reduce interest income and lower profits. The loss of the opportunity to earn profits from bad loans affects the planned profit projections, directly affecting profits. The same thing was also expressed by Manuaba (2012) that banks that have Non-Performing Loans that exceed the standards set by Bank Indonesia will cause a decrease in profits earned because the higher the Non-Performing Loan, the worse the credit quality, which causes the number of problem loans to increase. Large, so that the Bank suffers losses in its operational activities, which affect the decrease in profits earned by the Bank; it can be said that NPL has a negative and significant effect on profitability.

Bank fundamentals examined its relationship to bank performance, namely, bank size, Loan Deposit Ratio (LDR), Capital Adequacy Ratio (CAR), and Operating Expenses to Operating Income (BOPO). Based on the results of testing the hypothesis that has been obtained, it proves that the Bank's fundamental factors, which are proxied by the dimensions of bank size, Capital Adequacy Ratio (CAR), and Operating Expenses to Operating Income (BOPO), have a direct, insignificant effect on bank performance.

It is suspected that bank size does not affect bank performance because people need to consider bank size in using banking products and services, including obtaining credit from the Bank. However, bank size still has the opportunity to influence banks to expand credit to maximize profit. Previous studies' results (Nurwulandari et al., 2022) prove that bank size has no significant effect on bank performance. The influence of CAR on bank performance is not significant because it is suspected that bank management has yet to be fully effective in using its capital potential to increase bank profitability. The results of previous research (Jin et al., 2022) prove that it has no significant effect on the Bank's performance.

The results of previous research related to the effect of BOPO on bank performance, such as the results of research by (Komang et al., 2020), prove that BOPO has a significant effect on bank performance. However, the results of this study prove that the fundamental factors reflected by BOPO have no significant effect on the performance of Bank Jambi. The difference in these findings explains that there is still a gap (gap) related to the relationship between BOPO and bank performance. The insignificant effect of BOPO on financial performance indicates that the efforts made by Bank Jambi to reduce operating costs have not made a significant contribution to improving bank performance, especially in terms of increasing bank profits because inefficiencies still occur. Original Regional Bank income from credit income is not yet from service income, fee-based income and other income generating activities.

Macroeconomics is an economic change that affects many people, companies, and markets. Several macroeconomic factors that affect banking conditions include inflation, interest rates, exchange rates (exchange rates), and GDP. Hatmanu & Cautisanu (2020) state that non-fundamental factors such as inflation, interest rates, economic growth, and exchange rates can affect performance and banking stability.

According to (Hítalo et al., 2023; Sitasari & Firmansyah, 2022), the effect of inflation on bank performance proves that inflation significantly affects bank performance. The results of this study prove that inflation has no significant effect on the performance of Bank Jambi. The effect of inflation on bank performance is insignificant because the policy of lowering interest rates is consistent with inflation forecasts that remain low within the target range and under control to support macroeconomic stability. As a result, the impact of inflation on Bank Jambi's financial performance is not so significant.

According to research results (Istan & Fahlevi, 2020), the effect of GDP on bank performance proves that GDP has a significant effect on bank performance. The results of this study prove that GDP has no significant effect on the performance of Bank Jambi. The effect of GDP on bank performance is not significant due to an increase in people's income due to an increase in GDP, not necessarily being able to increase the pattern of community-saving towards banking companies. In addition, most of Bank Jambi's customers come from ASN circles, whose income tends to be relatively fixed. Even though GDP has increased, it does not necessarily encourage customers to increase the amount of their savings at Bank Jambi.

The exchange rate has no significant effect on the performance of Jambi Bank because relatively short-term exchange rate changes, so this situation does not disrupt the business carried out by customers, therefore changes in the rupiah exchange rate do not affect customers' ability to pay

credit bills, so that Bank Jambi's performance from the aspect of profitability continues to grow from 2017 to 2021. In addition, Bank Jambi is not yet a foreign exchange bank so there is no significant impact of changes in the exchange rate of the rupiah and other foreign currencies.

High or low bank performance, the aspect of the Bank's ability to generate profits, can be influenced by various factors, one of which is the primary concern is Non-Performing Loans(NPLs). The greater the level of NPL at a bank, the greater the risk of credit failure, which has the potential to reduce interest income and lower profits. The loss of opportunity to earn profits from bad loans affects the planned profit projections, directly affecting profits. (Alshebmi et al., 2020) Proving that NPL has a negative and significant effect on bank profitability.

Referring to the relationship between NPL, bank performance, and bank fundamental factors, it explains that changes in the level of NPL result in changes in the level of bank performance. On the other hand, changes in NPLs are caused by changes in bank fundamentals. Thus, NPL is a variable that can mediate the relationship between the influence of fundamental bank factors on bank performance was later proven from the results of testing the hypothesis in this study that NPL could mediate the indirect effect between bank fundamental factors on bank financial performance. Therefore, a strategy is needed to generate profits that are not related to credit so that risk is diversified.

Macroeconomic factors include other factors that can lead to high and low-quality bad loans (NPL) at a bank. As previously explained, inflation, gross domestic product (GDP), and the exchange rate (exchange rate) are the macroeconomic factors most frequently studied about their effect on the NPL of conventional commercial banks in Indonesia. The high and low NPL caused by the instability of various macroeconomic factors impact bank performance. As explained in the previous point, The greater level of NPL bank, the greater the risk of credit failure, which has the potential to reduce interest income and profits. The loss of opportunity to earn profits from bad loans affects the planned profit projections and directly affects profits. NPL is a variable that can mediate the relationship between the influence of macroeconomic factors on bank performance. However, the results of hypothesis testing prove that the mediating effect of NPL is insignificant in mediating the indirect effect relationship between macroeconomic factors on bank performance because macroeconomic factors also have an insignificant effect on Bank Jambi's NPL.

Changes in interest rates, which are part of monetary policy, apart from having an impact on increasing lending rates, also have an impact on increasing deposit rates. An increase in deposit rates can have a positive effect; increasing public interest in investing their funds in deposits provides an advantage for banks to plan credit distribution to their debtors. However, the proportion of deposits that dominates the composition of third-party funds causes the cost of funds to increase due to high deposit interest rates. An increase in the cost of funds due to high deposit interest rates will certainly reduce the efficiency of bank operational costs; in this case, the BOPO ratio will increase.

The results of testing the moderating effect in this study indicate that monetary policy variables have a strong and significant moderating effect in strengthening or weakening the relationship influence of fundamental bank factors on bank financial performance. As previously explained, the BOPO dimension, which reflects the Bank's fundamental factors, contributes the strongest influence on the performance of Bank Jambi. Thus there is an increase in the BI rate. Thus, the BI rate can strengthen the influence relationship between fundamental bank factors (BOPO) on the performance of Bank Jambi.

Minimum Statutory Reserves (GWM) and a solid moderating effect are significant in strengthening or weakening relationships, influencing fundamental bank factors on bank financial performance. This moderating effect can occur because the more significant the minimum statutory reserves that the Bank must maintain, the higher the cost of funds charged to the Bank. An increase in the cost of

funds due to an increase in GWM will reduce the efficiency of a bank's operational costs; in this case, the BOPO ratio will increase. Thus, GWM can also strengthen the influence relationship between fundamental bank factors (BOPO) on Bank Jambi's performance.

Statutory Reserves (GWM) hurt inflation, illustrating that determining the appropriate minimum reserve amount will impact control or inflation rate decline. Determination of the minimum reserve requirement for banks to control the money supply in macro policy is also intended to maintain banking conditions in a healthy condition. In that case, BI will increase the minimum reserve requirement for banks, thereby reducing the ability of banks to distribute funds to the public so that the money in circulation will be suppressed. The existence of sufficient minimum mandatory reserves will allow control or reduction of the money supply, especially during inflation.

Referring to the explanation of the relationship between monetary policy (BI rate and reserve requirement), bank fundamentals, and bank performance, and monetary policy can provide a moderating effect that strengthens or weakens the relationship between bank fundamentals and bank performance. However, the results of testing the hypothesis in this study show that monetary policy variables have an apparent moderating effect, or there is a possibility that monetary policy variables can strengthen or weaken the relationship between the influence of macroeconomic factors on financial performance. Wich means that monetary policy is not a factor that significantly strengthens or weakens the relationship between the influence of bank fundamentals on bank financial performance.

The results of testing the moderating effect in this study indicate that monetary policy variables have a strong and significant moderating effect in strengthening or weakening the relationship the effect of NPL on the Bank's financial performance. the BI rate can strengthen the influence relationship between NPLs on the performance of Bank Jambi. Minimum Statutory Reserves (GWM) and a solid moderating effect are significant in strengthening or weakening relationships and the effect of NPL on the Bank's financial performance. This moderating effect can occur if the more significant minimum statutory reserve that the Bank must maintain will increase the cost of funds charged to the Bank so that the Bank will tend to increase lending rates so that the profit earned on loans disbursed can cover the cost of funds on the minimum statutory reserve that the Bank must maintain. The increase in lending rates, of course, will increase the risk of bad credit (NPL) on loans that have been disbursed. Thus the GWM is expected to strengthen the influence relationship between NPL on the performance of Bank Jambi.

CONCLUSION

Based on the research results, the direct influence between fundamental bank factors between Non-Performing Loans (NPL) is significant, and macroeconomic factors to Non-Performing Loan s(NPL) are significant. NPL on the Bank's financial performance is positive and significant. The direct effect between Bank fundamental factors and bank financial performance show that directly influencing fundamental bank factors between financial performance is positively significant; testing the direct effect between macroeconomic factors on Bank's financial performance shows a direct influence of macroeconomic factors on positive bank financial performance and insignificant. Testing the moderating effect shows that the effect of monetary policy on financial performance results in that monetary policy variables have a substantial moderating effect in strengthening or weakening the relationship influence of fundamental bank factors on bank financial performance.

The results of testing the moderating effect related to the interaction of the influence of macroeconomic factors on financial performance are that moderate monetary policy obtained that results in the interaction of the influence of macroeconomic factors on financial performance are moderate monetary policy is not significant. Influencemonetary policy on financial performance significant. The moderating effect related to the interaction of the effect of NPL on financial

performance is moderate monetary policy, resulting in a moderated interaction of the effect of NPL on financial performance significant monetary policy.

THEORETICAL AND MANAGERIAL IMPLICATIONS

The implications of this study are, firstly, strategy is needed for the performance of Bank Jambi by increasing efficiency in the company's operational activities, as well as prioritising prudential principles in lending. As a Regional Bank which is a driving force for economic growth at the regional level, holding cash and managing regional finances, as well as one of the sources of regional original income, Bank Jambi must collaborate and partner with various parties so as to generate income generating and income that is not only sourced from credit but also other services or fee-based income. This implies that concerted efforts should be directed towards streamlining the company's operational processes and ensuring that lending practices adhere to prudent and responsible guidelines. Secondly, public authorities play a crucial role in monitoring and managing the inflation rate. It is imperative for them to take proactive measures to prevent excessively high inflation, as this can have detrimental effects on economic activities and growth. By maintaining a stable inflation rate, the authorities contribute to sustaining or fostering economic expansion, consequently bolstering the demand for credit from business entities directed towards Bank Jambi. This underscores the importance of a vigilant approach to economic policies that can influence inflation dynamics, ultimately impacting the banking sector and its interactions with businesses.

Furthermore, it is important for Bank Indonesia to carefully assess GWM needs and implement appropriate policies to avoid inflationary pressures. Excessive GWM at Bank Jambi has the potential to increase the cost of funds, thereby limiting the bank's ability to increase profits. Therefore, careful management of minimum required reserves is essential to strike a balance between regulatory compliance and the bank's financial health. Lastly, careful consideration of the benchmark interest rate (BI rate) policy by Bank Indonesia is very important in the future. Adjusting interest rates can have different impacts on various parties, namely benefiting parties who have large deposits in banks but being a burden for parties who need funds. In this context, Bank Jambi is recommended to closely monitor and respond to changes in the reference interest rate (BI rate) in determining deposit and loan interest rates. This proactive approach will enable the bank to align its interest rate policy with broader economic conditions and effectively meet the diverse needs of its customers.

LIMITATIONS

Despite this study providing significant insights correlation between bank fundamentals, macroeconomic factors, and bank financial performance, it should be recognised that the findings have certain limitations. Limitations in generalisability may arise due to the emphasis on specific bank types or economic conditions, thus reducing the general relevance of the results. Limitations in time span and geographical coverage should also be taken into account, given the potential variations in economic conditions across different periods or regions. Limitations in the measurement of monetary policy moderation are also worth noting as they affect the relationship between bank factors and financial performance. Finally, changes in economic conditions or financial policies over time may affect the results of the study.

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