The Influence of Banking Specific Factors and Macroeconomic Factors on Bank Profitability in Indonesia

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ABSTRACT

This study aimed to analyze the influence of bank-specific factors and macroeconomic factors on bank profitability in Indonesia from 2009 to 2023. The analyzed bank-specific factors included capital adequacy ratio, credit risk, loan to deposit ratio, and bank size. Meanwhile, the examined macroeconomic factors were Gross Domestic Product (GDP) and inflation rate. This study used secondary data obtained from bank financial reports and macroeconomic statistical data during the period. The population of this study covered all banks registered as Bank Issuers on the Indonesia Stock Exchange in 2023. The analysis techniques used were descriptive analysis and panel data regression using Eviews 10 software. The results indicated that the capital adequacy ratio had a negative influence on bank profitability, while credit risk and bank size had a positive influence on bank profitability. However, the loan to deposit ratio did not have a significant influence on bank profitability. In addition, GDP had a positive influence on bank profitability, while the inflation rate did not have a significant influence on bank profitability.

Keywords: Bank Profitability, Banking specific, Macroeconomic factors

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INTRODUCTION

Banking is one of the most vital economic sectors in the context of modern finance. Along with the ever-changing global economic growth and dynamic changes in financial regulations, the role of banks in maintaining economic stability and economic growth in Indonesia is increasingly important. The banking sector plays a significant role in a country's economy, where commercial banks function as financial intermediaries that connect individuals or entities that have excess funds with those who need them. (Adelopo et., al 2018) stated that commercial banks are the most dynamic financial intermediaries that carry out important financial functions. This is because commercial banks act as financial intermediary institutions in distributing public funds to the real sector through bank credit.

Banks are involved in risk transfer, handling complex financial instruments and markets, providing market transparency, offering payment mechanisms, and actively carrying out risk management functions within a certain period of time. In supporting these activities, banks require healthy performance and profitability. According to the Theory of Financial Intermediation, bank profitability is determined by the bank's ability to carry out financial intermediation effectively. With good performance and profitability, banks can consistently provide credit to the real sector, encourage investment growth, and foster economic recovery.

Good banking profitability can also strengthen bank capital so that it is able to bear potential losses in the future, enabling it to continue its role as a reliable financial intermediary institution.

Several studies have shown that factors that influence bank profitability include internal and external bank factors. Bank-specific factors are internal factors that influence the performance or financial condition of a bank in particular. Bank-specific factors are also a series of factors that measure the health of the bank's financial system, the bank's internal efficiency, and the quality of the bank's managerial decisions, especially in managing risk, and the scale of the bank's business and resources. The more efficient the operational costs and risks are managed, as well as adequate bank capital and size, the better the profitability will be. Al-Homaidi et., (2018) stated that there is an influence between specific banks and bank profitability as

measured by bank size, capital adequacy, liquidity, operational efficiency, deposits, leverage, and the number of branches. Farooq et al. (2020) also noted this influence.

In addition to specific bank factors, several researchers link external factors such as GDP to the determinants of bank profitability. Fidanoski et., al (2018) stated that there is a positive influence between GDP and the determinants of bank profitability. This is because positive GDP growth indicates conducive economic conditions that support credit growth and increased business activities. A country's GDP is a strong indicator of its economic health, and improvements in GDP reflect enhanced business opportunities and demand for banking services. Indonesia's GDP has continued to increase in the last eight years, except in 2020 during the pandemic. One sector driving this growth is financial services, a critical enabler for national economic activities. Bappenas (2019) highlighted the importance of this sector in meeting investment and development needs. The increase in GDP also correlates with population growth, which enhances the financial services sector's utilization.

Another macroeconomic factor influencing profitability is inflation. O'Connell (2023) stated that the inflation rate positively impacts bank profitability, assuming proper alignment of credit and deposit interest rates. Similarly, Jara-Bertin et., al (2014) concluded that higher inflation enhances profitability when banks capitalize on changing interest rates to mitigate costs. Despite the rich literature on bank-specific and macroeconomic factors, there remains limited discussion on how management accounting tools can be applied within banks to address these factors. Management accounting practices, such as variance analysis, balanced scorecards, or activity-based costing, could provide actionable insights for enhancing profitability by improving cost efficiency, resource allocation, and risk management strategies. Incorporating this dimension could offer a practical framework for banks to sustain profitability amid fluctuating macroeconomic conditions.

Furthermore, Rohman et., al (2022) analyzed the factors affecting profitability in Indonesia before and during the COVID-19 pandemic, using data from 131 conventional and 37 Islamic banks during 2015–2020. Factors like loan-to-deposit ratio, capital adequacy, and credit risk were pivotal.

Similarly, Al-Homaidi et., (2018) and Batten and Vo (2019) emphasized capital adequacy ratios as critical drivers of profitability. However, there is limited research specifically analyzing the profitability determinants of large Indonesian banks in the post-pandemic era, making this study highly relevant. In addition, while prior studies have identified influencing factors, there is a lack of clear strategic recommendations on how banks can leverage internal performance metrics or macroeconomic trends to improve profitability. This study addressed these gaps by:

1. Analyzing specific bank and macroeconomic factors influencing profitability in Indonesia's large banks post-COVID-19.

2. Exploring the application of management accounting tools to enhance financial performance and risk management in banks.

The findings could provide actionable insights for policymakers and bank managers in navigating current economic challenges.

LITERATURE REVIEW

Financial Intermediation Theory

Gurley stated that the Theory of Financial Intermediation is the process of bringing together two parties who have more funds and those who are short. This Theory explains that bank profitability is influenced by two main factors, namely banking-specific factors and macroeconomic factors (Gurley and Shaw 1956). The role of financial institutions, especially banks, acts as a liaison that connects parties who have surplus funds with those who need funds. This creates opportunities for more funds to be allocated to productive investments, which ultimately supports economic growth. Ketaren stated that the theory of financial intermediation is generally used to see whether the role of established banks has been running well (Ketaren 2020). The theory of Financial Intermediation is considered to be able to help banks in Indonesia to fulfill the duties and roles of banks so that the economy runs and develops well so that stable conditions occur.

Bank Profitability

Profitability is the ability of a business to generate profits or gains within a certain period of time. According to the Theory of Financial Intermediation, one of the main functions of banks is as intermediary financial institutions that channel funds from economic units with excess funds (savers) to units with a shortage of funds (users of funds). Companies with high profits are considered better than companies with lower profits.

Banking-specific Factors

Banking-specific factors are internal factors that specifically affect the performance or financial condition of a bank. Banking-specific factors also consist of a series of factors that measure the health of the financial system, internal efficiency, and managerial decisions of the bank. Rohman stated that several banking-specific factors include bank capital, credit risk, bank liquidity, and bank size.(Rohman et., al 2022)

The Effect of Capital Adequacy Ratio on Bank Profitability

Al-Homaidi stated that the capital adequacy ratio has a positive and significant effect on bank profitability (Almaqtari et., al 2019). This shows that the better the bank's capital adequacy ratio, the better its profitability. This result was also confirmed by Batten and Vinh Vo who in their research found that the capital adequacy ratio had a positive effect on bank profitability (Batten and Vo 2019). Djalilov and Piesseb found that there was a positive effect between the capital ratio and bank profitability (Djalilov and Piesse 2016). A high capital ratio has a positive impact on bank profitability by reducing financing costs and providing a good signal regarding the bank's future condition.

A high capital ratio can reduce bank financing costs because it can increase investor confidence. By having sufficient capital, the bank will appear more stable and can provide guarantees to investors. This high level of trust allows banks to access funding sources at lower costs. As a result, banks can offer lower credit interest rates to customers and ask for higher deposit interest rates from customers. The difference between the interest rate received and paid, or known as the net interest margin, becomes larger in this case. This shows that banks with a high capital ratio can achieve

greater profits. Based on previous studies, the hypothesis that was proposed in this study is:

H1: The impact of evolving regulatory requirements on the Capital Adequacy Ratio (CAR) in Indonesia and affects bank profitability.

The Effect of Credit Risk on Bank Profitability

Adelopo in his research found that credit risk had a negative effect on bank profitability. Higher credit risk will result in lower profits (Adelopo et., al 2018). In addition, banks also consider increased credit risk when providing credit or lending funds to customers. This aims to minimize the credit risk taken. Banks cover potential losses that may be experienced if the debtor defaults. Therefore, when the bank's capital adequacy ratio is low, banks tend to be stricter in analyzing the credit risk of prospective debtors.

Ekinci and Poyraz, found that credit risk had a negative effect on bank profitability (Ekinci and Poyraz 2019). This is because the increase in the number of non-performing loans distributed by banks will reduce bank income, because non-performing loans do not generate interest. In addition, non-performing loans also require provisions for impairment losses, which increases costs for banks. In addition, Bougatef showed that credit risk had a negative and significant effect on bank profitability (Bougatef 2017). This means that the higher the credit risk faced by the bank, the greater the likelihood of a decrease in profitability. High credit risk can lead to increased losses arising from bad debts or default by borrowers. This can reduce bank income and affect bank profitability. Based on previous research, the hypothesis proposed in this study was:

H2: Credit risk in Indonesia is influenced by regional variations in lending policies, and impacts bank profitability.

The Influence of Loan to Deposit Ratio on Bank Profitability

Through his research, Sudiyatno found that the Loan to Deposit Ratio (LDR) had a positive influence on bank profitability (Sudiyatno et.,al 2023). This is due to the fact that the higher the LDR, the more aggressive the bank is in distributing credit. Credit distribution by banks is one source of

income in the form of interest for banks. With the increasing amount of credit distributed, the potential for bank interest income will be greater. This high interest income will then have a positive impact on increasing the bank's operating profit and net profit. In line with the main function of the bank as a financial intermediary institution, a high LDR shows the bank's ability to utilize third-party funds received for credit distribution. The higher the LDR, the greater the bank's ability to channel public funds which are third-party funds (DPK) into credit to debtors. This significant credit distribution will increase the bank's interest income. Interest income is one of the main sources of income for banks. The higher the interest income generated, the greater the bank's profit and has a positive impact on the bank's overall performance. Siauwijaya also found that LDR has a positive effect on bank profitability (Siauwijaya et,. al 2023). In other words, the higher LDR of a bank, indicates that the bank's credit funding activities are increasing along with the increase in credit provided. This will increase the bank's interest income from the interest charged on credit. Meanwhile, the interest costs that the bank must pay to deposit customers are relatively lower because the amount of deposits is smaller compared to credit. Thus, the difference between interest income and interest costs, also known as the net interest margin, will be greater. The high net interest margin indicates a good level of core profitability of the bank. Based on studies related to the loan to deposit ratio on the bank's profitability, the hypothesis in this study was:

H3: The Loan to Deposit Ratio (LDR) affects bank profitability in Indonesia, considering regional differences in credit distribution policies.

The Effect of Bank Size on Bank Profitability

Garcia stated that the bank size variable had a positive effect on profitability (Garcia and Guerreiro et., al 2016). Based on this study, the larger the bank size, the greater its profitability. Large banks have a larger economic scale and wider business reach than small banks. This allows large banks to obtain larger profit margins because they can utilize their resources more efficiently, such as extensive distribution networks and branch facilities, and spread operational burdens to smaller business units.

In addition, Al-homaidi's research showed that bank size had a positive and significant effect on bank profitability (Al-Homaidi et., 2018). The larger the bank size, the higher the bank's profitability level. Ekinci & Poyraz stated that the larger the size of the bank's assets, the better the bank's financial performance (Ekinci and Poyraz 2019). Large banks have the ability to build a more diversified asset portfolio, thereby reducing risk and increasing revenue. In addition, large banks can also achieve economies of scale, which leads to lower operating costs compared to small banks. Based on research related to bank size on bank profitability, the hypothesis in this study was:

H4: Digital transformation enhances the effect of bank size on profitability through improved operational efficiency.

The Effect of GDP on Bank Profitability

Fidanoski stated that there is a positive effect between GDP and determinants of bank profitability (Fidanoski et., al 2018). This is because GDP growth has a positive impact because it shows conducive economic conditions that support credit growth and increased business activities. This is also in line with Adelopo (2018) who in his research stated that there is a positive effect between GDP and determinants of bank profitability before, during and after the crisis where GDP supports increased credit.

Ebenezer et. al also found that GDP had a positive effect on bank profitability or in other words (Olalere et., al 2017), the better the economic growth, the higher the bank's profitability. High economic growth indicates the creation of new jobs which will have an impact on many people who have a fixed income. This encourages the growth of savings in banking which can later be reallocated as productive credit to increase bank income. Based on research related to GDP on bank profitability, the hypothesis in this study was:

H5: GDP has a positive effect on bank profitability in Indonesia, reflecting the contribution of economic growth to financial intermediation

The Effect of Inflation on Bank Profitability

Al-Homaidi found that there is a significant and negative effect between inflation and bank profitability (Al-Homaidi et., 2018). With high inflation, people's purchasing power will decrease, making it difficult to pay off their loans. This has an impact on increasing non-performing loans for banks and decreasing profits due to the formation of larger impairment reserves. Banks also face the challenge of adjusting interest rates appropriately and quickly so that profit margins narrow due to the increasingly narrow earning spread between bank interest income and costs. In general, high inflation rates will burden bank capital and profit levels.

This is also in line with research by Rakshit which found that inflation had a significant negative effect on bank profitability (Rakshit and Bardhan et., al 2019). High inflation causes bank interest income to tend to be lower than the cost of funds. This is due to the gap time lag between the increase in credit interest rates and the increase in deposit interest rates. High inflation also risks reducing the value of bank assets such as the securities it owns. Economic uncertainty due to high inflation can also lead to increased non-performing loans and decreased quality of bank assets. This will ultimately have an impact on decreasing bank profit levels. Therefore it was proposed that:

H6: Inflation has a negative effect on bank profitability in Indonesia, influenced by the bank's ability to quickly adjust interest rates.

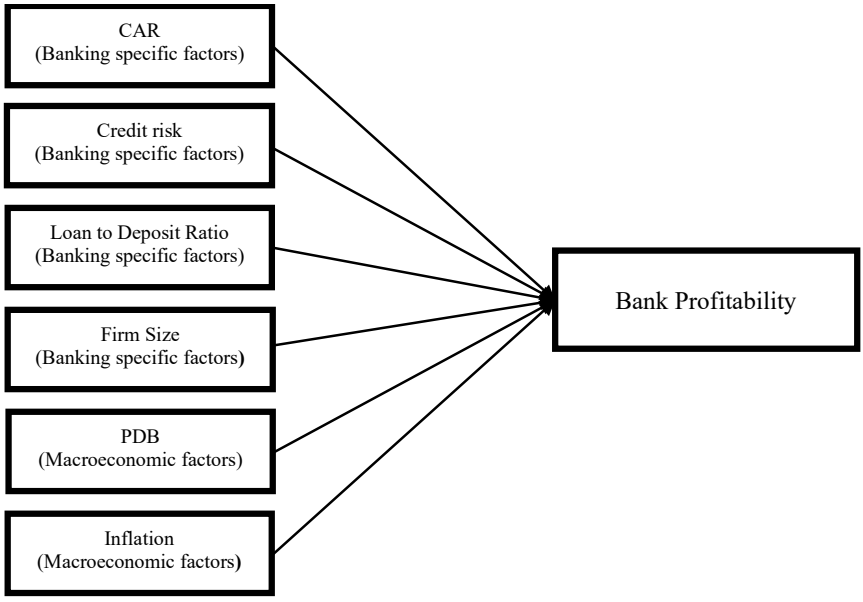

Figure 1: Research Framework

RESEARCH METHOD

This study used the Panel Least Square Procedure Eviews 10 regression estimation tool data regression model from 2009 to 2023 to analyze the influence between dependent variables and independent variables. The dependent variables that were the focus of this study were the factors that affect bank profitability, which were approximated through Net Interest Margin. While the independent variables used to describe bank characteristics included capital adequacy ratio, loan to deposit ratio, credit risk, bank size, GDP and inflation. In addition, the macroeconomic independent variables that were considered were GDP and inflation. In this research model, we attempted to identify the influence of these variables on bank profitability. Based on the classical assumption test, it was seen that the research data was normal, and in the multicollinearity test it was seen that the data did not experience multicollinearity, and in the heteroscedasticity test, there was no heteroscedasticity. The accepted regression model selection test was the common model effect.

Selected Model (CEM) Regression Results

The influence between variables was calculated using the least squares panel method in EViews version 10, with the Common Effect Model (CEM). The regression results of the selected model are presented in Table 1 as follows:

Table 1: Selected Model (CEM) Regression Results

Dependent Variable: NIM
Method: Least Squares Panel
Date: 06/25/24 Time: 12:07
Sample: 2009 2023
Periods included: 15
Cross-sections included: 7
Total panel (balanced) observations: 105

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-0.019899	1.865701	-0.010666	0.9915
CAR	-0.038959	0.010984	-3.546713	0.0006
RISK	-0.123716	0.055548	-2.227204	0.0282
LDR	0.004230	0.006795	0.622485	0.5351
SIZE	0.147375	0.050973	2.891226	0.0047
GDP	0.166071	0.082765	2.006543	0.0476
INFLATION	0.059191	0.058748	1.007546	0.3162
R-squared	0.477413	Mean dependent var		5.173429
Adjusted R-squared	0.445418	SD dependent var		0.873574
SE of regression	0.650553	Akaike info criterion		2.042354
Sum squared resid	41.47552	Schwarz criterion		2.219284
Log likelihood	-100.2236	Hannan-Quinn Criter.		2.114049
F-statistic	14.92143	Durbin-Watson stat		0.852303
Prob(F-statistic)	0.000000			

The regression equation for panel data was as follows:

NIM = -0.0198988128468 -0.0389587888096*CAR -0.123716253605*RISK + 0.00422999573152*LDR + 0.147374941416*SIZE+0.166071185539*GDP + 0.059191 0399892*INFLATION

Based on the regression equation, the influence of each independent variable on the dependent variable analyzed with the following conclusions for each variable:

1. The constant C of **-0.0198988128468** stated that if the value of CAR, INFLATION, LDR, GDP, RISK, SIZE was constant (0) then the value of variable Y (NIM) was -0.0198988128468

2. The regression test results showed that CAR was significant with a probability value of 0.0006

3. The regression test results showed that RISK was significant at an alpha of 5 percent with a probability value of 0.0282

4. The regression test results showed that LDR was not significant because the prob value was greater than 0.05

5. The regression test results showed that SIZE was significant at alpha 5 with a prob value of 0.0047

6. The regression test results showed that GDP was significant at an alpha of 5 percent with a prob value of 0.0476

7. The regression test results showed that INFLATION was not significant because the prob value was greater than 0.05.

Hypothesis Testing

Hypothesis testing is used to examine whether there is a significant influence between the independent variable and the dependent variable. It tests whether the proposed hypothesis regarding the relationship between the variables is true or false. The goal is to determine whether the independent variable has a significant effect on the dependent variable.

Several statistical tests are used in hypothesis testing, including:

Partial Regression Coefficient Test (F Test)

The F test is a statistical test that determines whether all independent

variables are able to explain the dependent variable. The criteria used for decision making are as follows:

1. The hypothesis can be explained as follows:
   Ho: the independent variable (X) simultaneously has no significant effect on the dependent variable (Y)
   Ha: the independent variable (X) simultaneously has a significant effect on the dependent variable (Y)

2. With rejection criteria:
   Prob. (F-statistic) ≤ 0.05 ; Ho is rejected, Ha is accepted
   Prob. (F-statistic) > 0.05 ; Ha rejected, Ho accepted

   The results of the F test calculation can be seen in Table 2.

Table 2: F Test Results

R-squared	0.477413	Mean dependent var	5.173429
Adjusted R-squared	0.445418	SD dependent var	0.873574
SE of regression	0.650553	Akaike info criterion	2.042354
Sum squared resid	41.47552	Schwarz criterion	2.219284
Log likelihood	-100.2236	Hannan-Quinn Criter.	2.114049
F-statistic	14.92143	Durbin-Watson stat	0.852303
Prob(F-statistic)	0.000000		

Source: Eviews Output, 2024

From these results, the probability of the F test (0.000000) was smaller than **α** (0.05), therefore, H0 was rejected. In conclusion, based on the significant F test results, together the variables CAR, RISK, LDR, SIZE, GDP, INFLATION had a real effect on the dependent variable NIM

Partial Regression Coefficient Test (t Test)

The t statistical test is carried out to determine the effect of each independent variable on the dependent variable. If the significance value (Prob) is <0.05 then H0 is rejected for that variable. The criteria for the t statistical test are as follows [20]:

1. If the significance value of the t test is > 0.05 then H_0 is accepted and Ha is rejected. This means that there is no influence between the independent variable and the dependent variable.

2. If the significance value of the t test is <0.05 then H_0 is rejected and Ha is accepted. This means that there is an influence between the independent variable and the dependent variable.

If Ho is rejected, it means that the independent variable has a significant effect on the dependent variable, whereas if Ho is accepted, it means that the independent variable has no significant effect on the dependent variable. This means that the independent variable has a significant effect on the dependent variable.

The results of the T test in this research can be seen in Table 3.

Table 3: t Test Results

Dependent Variable: NIM
Method: Least Squares Panel
Date: 07/02/24 Time: 20:15
Sample: 2009 2023
Periods included: 15
Cross-sections included: 7
Total panel (balanced) observations: 105

Variables	Coefficient	Std. Error	t-Statistics	Prob.
C	-0.019899	1.865701	-0.010666	0.9915
CAR	-0.038959	0.010984	-3.546713	0.0006
RISK	-0.123716	0.055548	-2.227204	0.0282
LDR	0.004230	0.006795	0.622485	0.5351
SIZE	0.147375	0.050973	2.891226	0.0047
GDP	0.166071	0.082765	2.006543	0.0476
INFLATION	0.059191	0.058748	1.007546	0.3162

Source: Eviews Output, 2024

Based on the results of the t test statistical calculation at a significance level of 5% (five percent), it can be explained that:

1. The T test results showed that the *Capital Adequacy Ratio variable* had a negative and significant effect on bank profitability, with a probability value of 0.0006 which was smaller than the significance level (**α**) of 0.05. In addition, the beta coefficient obtained was -0.038959. Based on these findings, it was concluded that the null hypothesis (H0) is rejected for the t test on the *Capital Adequacy Ratio variable* or means

that *Capital Adequacy* had a negative and significant effect on bank profitability

2. For the RISK variable, the probability value was 0.0282, which was also smaller than **α** 0.05. In addition, the beta coefficient obtained was --0.123716. Based on these findings, it was concluded that the null hypothesis (H0) was rejected for the t test on the credit risk variable or meant that credit risk had a negative and significant effect on bank profitability.

3. On the other hand, for the LDR variable, the probability value was 0.5351, which was greater than **α** 0.05. Based on this, it was concluded that H0 was accepted and LDR did not have a significant effect on bank profitability

4. Furthermore, for the SIZE variable, the probability value was 0.0047, which was smaller than **α** 0.05. In addition, the beta coefficient obtained was 0.147375. Based on this, H0 was rejected for this variable and it was concluded that SIZE had a positive and significant effect on bank profitability.

5. For the GDP variable, the probability value was 0.0476, which was smaller than **α** 0.05. In addition, the beta coefficient obtained was 0.166071. Therefore, H0 was rejected on this variable and it was concluded that GDP had a positive and significant influence on bank profitability.

6. Finally, for the INFLATION variable, the probability value was 0.3162, which was greater than **α** 0.05. Thus, the null hypothesis (H0) was accepted and INFLATION did not have a significant influence on bank profitability.

Coefficient of Determination Test (R^2)

Ghozali stated that testing the coefficient of determination was carried out with the aim of measuring the model's ability to explain how the influence of the independent variables together (simultaneously) affects the dependent variable which can be indicated by the *adjusted R – Squared value* [21]. Determination test in this study can be seen in Table 4.)

Table 4: Coefficient of Determination Test Results (R^2)

R-squared	0.477413	Mean dependent var	5.173429
Adjusted R-squared	0.445418	SD dependent var	0.873574
SE of regression	0.650553	Akaike info criterion	2.042354
Sum squared resid	41.47552	Schwarz criterion	2.219284
Log likelihood	-100.2236	Hannan-Quinn Criter.	2.114049
F-statistic	14.92143	Durbin-Watson stat	0.852303
Prob(F-statistic)	0.000000		

Source: Eviews Output, 2024

Based on table 4 above it can be seen that the *Adjusted value The R-square* was 0.445418, meaning that together the independent variables, namely CAR, RISK, LDR, SIZE, GDP and INFLATION, can explain the dependent variable, namely NIM, of 44.5418 percent, while the remaining 55.4582 percent was explained by other variables which were not included in this modeling.

Explanation of CEM Model

The Common Effect Model (CEM) was selected because of the homogeneous characteristics of the banks listed on the Indonesia Stock Exchange (IDX), allowing us to use a general model to capture overall patterns across the entire sample. The model assumes that the effects of the independent variables on the dependent variable are consistent across all banks, without accounting for individual differences. This choice is further supported by classical assumption tests showing no multicollinearity, heteroscedasticity, or violation of normality, ensuring that the model's results are valid and reliable

DISCUSSION

The results showed that the Capital Adequacy Ratio (CAR) had a significant negative effect on bank profitability in Indonesia, which contradicted the hypothesis that CAR would have a positive effect. This finding aligns with (Sharkas 2022), which also concluded that an increase in CAR negatively impacts profitability. The negative relationship can be explained by the capital requirements imposed on Indonesian banks, which compel them to hold larger reserves. While these requirements aim to strengthen banks' resilience against economic shocks, they also reduce the amount of capital

available for lending. As a result, banks have fewer productive assets to allocate to credit provision, which limits their ability to generate income and profits from lending activities. Therefore, while CAR regulations are essential for financial stability, they need to strike a balance that also allows banks to lend more freely, particularly during periods of economic recovery.

This research showed that credit risk had a negative effect on profitability in Indonesia. In accordance with Financial Intermediation Theory, high credit risk can reduce the quality of bank assets, give rise to *moral hazard behavior*, and hamper the bank's credit intermediation function. *Moral hazard* in this context refers to a situation where banks tend to provide greater credit risk because the bank assumes that losses arising from non-performing loans will be borne by insurance or the government which could have an impact on reducing bank interest income. The results of this research are in line with the findings of Adelopo's research which found that credit risk had a significant negative influence on bank profitability (Adelopo et., al 2018). This is supported by the Theory of Costs and Benefits and Profit margins, high credit risk has the potential to increase bank costs due to the possibility of bad credit. Meanwhile, according to the Agency Theory, high credit risk can widen conflicts of interest between banks and customers, thereby potentially giving rise to moral hazard behavior where customers tend to be less careful in managing their loans because it is assumed that the bank will bear the losses if the credit goes bad. This condition in turn can cause non-performing loans to increase and have a negative impact on bank profitability.

The Loan to Deposit Ratio (LDR), despite being a commonly used metric for banking performance, did not show a significant impact on bank profitability in this study. This suggests that Indonesian banks are cautious in their lending practices, possibly due to ongoing economic uncertainty and the legacy of high Non-Performing Loan (NPL) ratios. This trend indicates that credit growth in Indonesia is constrained by regulatory oversight and concerns over asset quality. The findings align with Muhtadin's research, which suggested that even though LDR was within the normal limits set by Bank Indonesia, credit distribution by banks had not been fully effective in generating profits. High NPL levels, still above the international average, reflected this issue. For example, PT Bank Raya Indonesia Tbk (AGRO) had a gross NPL of 4.4 percent, partly due to aggressive credit expansion during

its rapid digital transformation. This was not supported by an adequate credit risk management system, leading to higher default rates and limiting the positive impact of increased lending on profitability. This indicates that policymakers should collaborate with the banking sector to improve credit distribution, particularly in resilient sectors, while addressing NPL issues to ensure healthier banking practices moving forward.

This research showed through the results of regression analysis that *bank size (Size)* had a significant positive effect on bank profitability in Indonesia. The regression results supported the hypothesis in this research, namely that bank size has a significant positive effect on bank profitability in Indonesia. This finding is in line with Financial Intermediation Theory, where the larger the bank's business scale, the more efficient it will be in carrying out its financial intermediation function. Large-scale banks have advantages in terms of economies of scale, or in other words, operational costs per transaction unit will become smaller as the business scale grows, thereby increasing profitability and access to resources where large banks have access to third party funds and larger capital markets. area as well as more human and technological resources to support its intermediation function.

The significant relationship between GDP and bank profitability highlights the crucial role of economic growth in supporting the banking sector's intermediation function. As the economy grows, it creates more lending and investment opportunities, which increases bank profitability. Economic growth stimulates demand for credit and savings, boosts interest income, and reduces credit risk, which aligns with the Financial Intermediation Theory. From a policy perspective, policymakers should focus on creating a stable and growth-oriented economy by encouraging investment and supporting domestic consumption and trade. For bank managers, aligning strategies with national economic trends is essential. During periods of GDP growth, banks can expand their lending portfolios and offer innovative products to meet the rising demand for credit.This study confirmed that GDP positively impacted bank profitability in Indonesia, consistent with the Financial Intermediation Theory. As businesses expand and invest during economic growth, banks have greater opportunities to generate revenue, attract customers, and improve financial stability. The findings underscore the importance of macroeconomic stability in fostering a profitable banking environment.

The results showed that inflation did not significantly impact bank profitability, which may reflect the ability of banks to shield themselves from inflation's immediate effects through adaptive interest rate policies and hedging. Additionally, inflation in Indonesia has remained at manageable levels, allowing banks to adjust without much disruption. This suggests that bank managers may benefit from maintaining a flexible approach to interest rate adjustments in response to future inflationary pressures. This finding contrasts with the Financial Intermediation Theory, which suggests that in inflationary conditions, banks should adjust loan interest rates more quickly than deposit rates, thereby widening their net interest margin and optimizing their asset portfolios. This process is expected to contribute to increased net income and bank profitability. The results also contradict research by Hasanov, which indicated a significant relationship between inflation and bank profitability through the mechanism of faster interest rate adjustments on loans compared to deposits. Furthermore,the Economic Theory posits that inflation reduces the real value of money, enabling banks to borrow larger nominal amounts at the same real costs, which should, in turn, increase profitability.

CONCLUSION

Based on the results of research on the influence of internal and external factors on bank profitability in Indonesia, it can be concluded as follows: (1) variable has a negative effect on bank profitability. Therefore this variable did not support the research hypothesis. This is due to the increase in the capital adequacy ratio, the minimum capital requirements that must be met by banks also increase. As a result, the amount of bank assets that can be allocated to operational activities such as providing credit is reduced. (2) The hypothesis which stated that credit risk has a negative effect on bank profitability is supported . This finding is in line with the Financial Intermediation Theory and empirical research which showed that high credit risk can reduce asset quality, give rise to moral hazard behavior, and hinder the bank‘s credit intermediation function. (3) The Loan to Deposit Ratio (LDR) variable didoes not have a significant influence on bank profitability. Therefore this variable did not support the research hypothesis. This is because credit distribution carried out by banks has not been fully effective in generating profits. good risk in some tires. (4) The hypothesis

that bank size has a positive effect on bank profitability was supported . Larger banks have advantages in terms of economies of scale and greater resources to improve operational efficiency and risk management. (5) The hypothesis which stated that economic growth (GDP) has a positive effect was supported . In conditions of good economic growth, banks can experience increased business activity and generate higher income. (6) Inflation did not have a significant effect on bank profitability. Therefore, this variable did not support the research hypothesis. The results of this study were consistent with the explanation that the impact was not significant if inflation is predictable, allowing for adjustments by banks.

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