Jurnal Ilmu Keuangan dan Perbankan (JIKA)
Volume 13 Nomor 1 (Desember 2023)
E-ISSN: 2338-292X (Online) P-ISSN: 2086-0455 (Print)
E-mail: jika@email.unikom.ac.id
Website: https://ojs.unikom.ac.id/index.php/jika

The Effect of Firm Size, Credit Risk, Interest Rates, and Liquidity on Bank Profitability: Study on State-Owned Banks in Indonesia

Dedi Supiyadi[1*], Intan Novita[2]

dedi.supiyadi@inaba.ac.id[1]*

Universitas Indonesia Membangun, Jl. Soekarno Hatta No. 448, Kota Bandung, Jawa Barat, Indonesia

Received Date : 10.07.2023
Revised Date : 29.09.2023
Accepted Date : 19.10.2023

ABSTRACT

This study aims to examine the effect of bank size, credit risk, interest rate and liquidity on profitability in state-owned banks listed on the IDX. In this study the authors used a random effects model on a balanced panel data set of all state-owned banks listed on the Indonesia Stock Exchange from 2013 to 2022, consisting of 81 Banks, from the entire research sample for 10 years obtained 50 observations. The results show that credit risk and liquidity have a negative effect on profitability, interest rates have a positive effect on profitability and firm size has no effect on profitability, Overall, the results of this study indicate that all the variables studied, namely credit risk, liquidity levels, interest rates, and firm size, simultaneously influence the profitability of state-owned banks. The findings in this study can provide insights to decision makers, bank management, and stakeholders regarding strategies to improve the profitability of state-owned banks in Indonesia. This article adds to the literature on indicators that affect state-owned banks profitability in Indonesia.

Keywords : Firm Size; Credit Risk; Interest Rate; Liquidity; Profitability

ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh ukuran perusahaan, risiko kredit, Interest Rate dan liquiditas terhadap Profitabilitas pada Bank BUMN yang terdaftar di BEI. Dalam penelitian ini penulis menggunakan model random efek pada set data panel yang seimbang dari semua bank BUMN yang terdaftar di Bursa Efek Indonesia dari tahun 2013 hingga 2022, terdiri dari 81 Bank BUMN, dari keseluruhan sampel penelitian selama 10 tahun di peroleh 50 observasi. Hasil penelitian menemukan bahwa risiko kredit dan liquiditas berpengaruh negatif terhadap profitabilitas, tingkat suku bunga berpengaruh positif terhadap profitabilitas dan ukuran perusahaan tidak berpengaruh terhadap profitabilitas, Secara keseluruhan, hasil penelitian ini menunjukkan bahwa semua variabel yang diteliti, yaitu risiko kredit, tingkat likuiditas, tingkat suku bunga, dan ukuran perusahaan, secara simultan memiliki pengaruh terhadap profitabilitas Bank BUMN. Temuan dalam penelitian ini dapat memberikan wawasan kepada para pengambil keputusan, manajemen bank, dan pemangku kepentingan terkait strategi untuk meningkatkan profitabilitas Bank BUMN di Indonesia, sekaligus menambah dan memperkaya literature tentang indikator yang mempengaruhi profitabilitas bank BUMN di Indonesia.

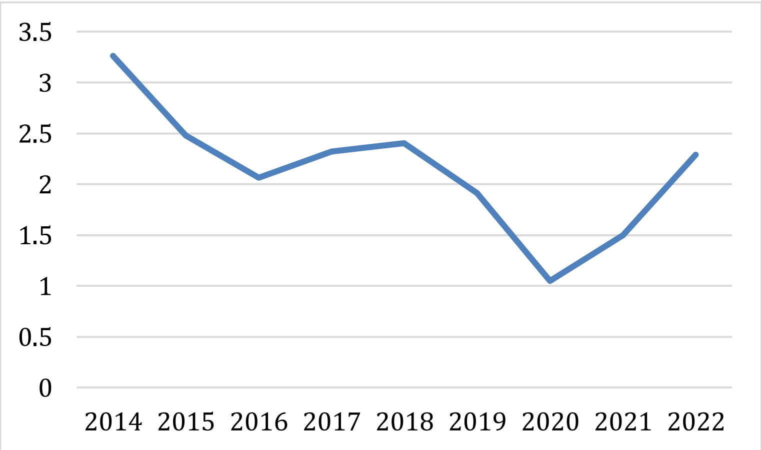
Kata Kunci : Ukuran Perusahaan; Risiko Kredit; Bunga; Liquiditas; Profitabilitas

INTRODUCTION

In order to collect money from the public in the form of savings and then channel it back to parties who need money, such as business actors, SMEs, individuals, or other institutions, in the form of credit, banks were established. As financial intermediaries, banks play a significant role in the Indonesian economic system. Since the monetary crisis in mid-1997, the banking sector has become one of the many banks experiencing bad credit. In general, the monetary crisis is the result of a bad banking system, which will affect investment in the capital market directly or indirectly. The most significant impact was the loss of public trust in banks, which resulted in many banks experiencing liquidation and bankruptcy.

Bank performance is very important to build a sense of public trust, one of the indicators assessed by the public and investors is profitability. Profitability is a financial indicator used by investors and creditors to evaluate how efficient a bank is in generating profits from its assets, (Gitman & Zutter, 2015) defines profitability as a company's ability to generate profits during a certain period. ROA is one of the measurement tools used to measure bank profitability.

ROA describes a bank's ability to earn profits from the assets used. The higher the ROA achieved, the more efficient the bank is in managing its assets and the greater the profit that can be generated. ROA is used by Bank management to monitor and manage the bank's financial performance. ROA provides an overview of the level of profitability that can be achieved by a bank based on the use of assets and other resources. A high ROA shows that a bank is able to generate good profits from its assets. ROA by bank management is used as a comparison with similar industries to measure the relative performance of banks. This information is presented in Figure 1.



Source: Processed by researchers, 2023

Figure 1. State-owned banks' profitability for the period 2013 - 2022

Based on Figure 1, state-owned banks performed well in 2022, posting a net profit of 303.7 trillion, a considerable increase from the 179 trillion they made the year before. PT Bank Rakyat Indonesia (Persero) Tbk (BBRI), with a net profit above IDR 50 trillion, or IDR 51.4 trillion, is the state-owned bank with the highest net profit, followed by PT Bank Mandiri (Persero) Tbk (BMRI), with a profit above IDR 40 trillion. PT Bank Negara Indonesia (Persero) Tbk (BBNI), which has a value over IDR 18 trillion, and PT Bank National Savings (Persero) Tbk (BBTN), which has a value over IDR 3 trillion, follow.

According to data from the Financial Services Authority (OJK), state-owned banks' total profitability has declined from 2014 to 2022, with a notable decline in 2020. However, this profitability has started to increase in 2021 to 2022. The significant fall in 2020 may be caused by external influences, such as the COVID-19 pandemic's effects on the stability of the world economy. This health crisis disrupted various economic sectors, including banking. Restrictions and reduced economic activity in 2020 may have reduced revenue and increased credit risk for state-owned banks, negatively impacting profitability.

However, the improvements seen in 2021 and 2022 point to signs of recovery. This could be due to economic stimulus measures, improvement in market conditions, and adaptation of business strategies by these banks to face the challenges they face. Changes in the profitability of state-owned banks from year to year can be influenced by various factors such as: firm size, credit risk, interest rates, financial market stability, asset quality, liquidity, and policies implemented by banks and regulators.

Firm size is an illustration of the scale of a business entity, which can be measured using several metrics, such as total assets, total sales, stock market value, and so on. According to (Al-Matari, 2023) the bigger the Firm, the greater the tendency to use capital. Firm with large assets will be able to improve performance which can generate better profits. In the context of profitability, several studies have concluded that the larger the firm, the more likely it is to use capital efficiently, (Sufian, 2009); (Mollah, 2011).

Firm with large assets tend to have the potential to improve performance and generate better profits. Firm size is an important factor that can affect profitability, because firm with large total assets have more resources that can be used to generate income, large firm have better access to markets and greater investment opportunities. There have been numerous researches on the impact of firm size on profitability, but the findings are still inconsistent. According to the study's findings (Nainggolan & Sitorus, 2021) there is a correlation between business size and profitability, meaning that the higher the level of profitability attained, the larger the firm size. Contrary to research findings, (Lin & Zhang, 2009); (Javaid & Alalawi, 2018) demonstrate that there is no effect of business size on profitability, i.e., that profitability is not influenced by firm size.

Most of the profits derived from the loan interest received by each bank. Therefore, credit has a very large influence on the operational activities of banking companies. The function of bank credit here is to increase the ability of investors to produce profitable businesses. The greater the channeling of credit, the higher the risks that arise, for example, non-payment of funds channeled and this will reduce profits so that there will be a decrease in profitability. Credit risk, if improperly managed, can have an impact on a company's performance because it arises from customers' or other parties' failure to fulfill their obligations to the bank in accordance with the agreed-upon agreement (Supiyadi & Purnomo, 2018); (Korri & Baskara, 2019).

This credit risk will illustrate how the potential for bad credit arises from funds that have been channeled with incoming funds as payment for the credit. According to research by (Supiyadi & Purnomo, 2018) an increase in credit risk will result in higher borrowing costs for banks because investors will demand high interest rates as compensation for high risk. Non-Performing Loans (NPL) are a good indicator of the credit risk that banks are exposed to because the lower the NPL, the lower the credit risk that the bank is exposed to.

According to (Korri & Baskara, 2019) and research (Supiyadi & Purnomo, 2018) that the higher the NPL, the lower the profit or profitability, increasing the amount of non-performing loans will have an effect on reducing profits earned. Bank profitability is impacted by non-performing loans. Due to the large number of NPLs, banking institutions are forced to incur losses in their daily operations, which lowers Return on Assets.

Since the majority of the money that banks own was originally deposited by members of the public, upholding public trust is crucial in the world of banking. A ratio called liquidity risk is used to assess a company's capacity to meet immediate obligations. According to (Kasmir, 2018), the loan to deposit ratio (LDR) is a ratio used to determine how much credit is being given compared to the amount of public money and own capital being utilised. More money is transferred to third parties in the form of credit the higher the LDR. Profitability will rise and there will be a higher income from interest rates.

Increased interest rates will, as previously noted, have an effect on profitability. Rising interest rates will affect banking operational activities in financing and channeling funds; if there is a decrease, it will reduce income or profits (Kariuki, 2023), another study found that interest rates have no significant impact on profitability (Molyneux et al., 2019).

This study's objective was to assess how business size, credit risk, interest rates, and liquidity would affect the profitability of state-owned banks listed on the Indonesia Stock Exchange (IDX) from 2013 to 2022. This study's findings can help bank management understand the significance of these variables in achieving better financial performance by pinpointing the factors that have an impact on state-owned banks' profitability and offering insightful financial management and decision-making information.

In addition, this research also has the potential to enrich the literature and studies on bank profitability in Indonesia. This study can help to a better knowledge of the variables that determine bank profitability, particularly in Indonesia's state-owned bank sector, by filling in research gaps. Thus, it is anticipated that the findings of this study will help the banking sector, regulators, academics, and other relevant parties to better understand and manage the profitability of state-owned banks as well as to generate new ideas and research in this area.

RESEARCH METHOD

Based on Table 1, this study employed a verified descriptive research approach and used secondary data from the yearly financial report data released on the IDX from 2013 to 2022. A total of 81 businesses, or all banks listed on the Indonesia Stock Exchange from 2013 through 2022, were included in this study.

The following criteria were used to choose samples when using the purposive sampling method: (1) the company must be listed on the Indonesia Stock Exchange (IDX) between 2013 and 2022; (2) it must have published complete financial statements between 2013 and 2022; and (3) the company must have the data required by researchers. Following the use of purposive sampling, five businesses served as the research sample for ten years, yielding a total of fifty observations.

Table 1. Variable Operationalization

No	Variables	Concept Variables	Indicators	Scale
1.	Firm Size (X_1)	Firm Size refers to a company's size as measured by its total assets, sales, average sales volume, and average total assets.	Ln Total Asset	Ratio
2.	Credit Risk (X_2)	Non-Performing Loans are a measurement of a bank's business risk ratio which shows the amount of credit risk that exists in a bank	$NPL = \frac{bad\ credit}{total\ credit\ distributed}$	Ratio
3.	Interest Rate (X_3)	The cost of using investment money (loanable funds) is expressed as an interest rate.	BI Rate	Ratio

4.	Liquidity (X_4)	The capacity of the bank to fulfill immediate obligations	$LDR = \frac{credit\ given}{total\ fund\ received}$	Ratio
5.	Profitability (Y)	Ability of the business to turn a profit utilizing its own resources	$ROA = \frac{EAT}{Total\ Asset}$	Ratio

Source: Processed by researchers, 2023

Variables to be analyzed in this study are listed in Table 1, and the study uses panel data analysis as a data analysis technique. The impact of variables like firm size (Size), credit risk (NPL), interest rates (Interest Rate), and liquidity (LDR) on profitability (ROA) in state-owned banks listed on the Stock Exchange Indonesian Securities is investigated using panel data analysis. The variables will be put to the test via panel data analysis to see how they affect the profitability of state-owned banks. The impact of these variables can be estimated using statistical techniques like panel data regression models like Fixed Effects Models or Random Effects Models. The model used in this study employs the equation presented in Equation 1.

$$\boldsymbol{ROA = \beta_0 + \beta_1 SIZE_{it} + \beta_2 NPL_{it} + \beta_3 RATE_{it} + \beta_4 LDR_{it} + e_{it}} \qquad \textbf{(1)}$$

Where NPL stands for Non-Performing Loans, which is a proxy for Credit Risk, rate is the interest rate of the bank, LDR is the Loan to Deposit Ratio, which is a proxy for Liquidity, and e is the error based on Equation 1. ROA is also known as Return on Assets, and it serves as a proxy for profitability.

RESULTS AND DISCUSSION

Based on the test results obtained using the panel data regression analysis technique shown in Table 2, it has been determined that the Random Effects Model is the most appropriate model for this study. In panel data analysis, the Random Effects model accounts for random differences among observation units (state-owned banks), which may have an impact on the dependent variable (profitability) and independent variables (business size, credit risk, interest rates, and liquidity).

This model provides flexibility in modeling variations between observation units that cannot be explained by the independent variables observed, so as to produce more accurate estimates of the relationship between these variables.

Table 2. Best Model Selection

Best Models	Chi-Square Probability	Result
Chow Test	P-Value = 0.000	FE
Hausman Test	P-Value = 0.000	RE
LM Test		RE

Source: Processed by researchers, 2023

Based on the results of the F test presented in Table 2, it shows that simultaneously fim size, credit risk, interest rates, and liquidity all have an impact on the profitability of state-owned banks. Around 65.19% of the variation in the profitability of state-owned banks listed on the Indonesia Stock Exchange may be accounted for by these independent variables.

Other variables that were not examined in this study have an impact on the remaining 34.81%. The capacity of the independent factors to simultaneously explain the dependent variable demonstrates that firm size, credit risk, interest rates, and liquidity have a significant impact on the profitability of state-owned banks, as presented in Table

3. It can be argued that this study model does a decent job of describing the variables affecting the profitability of state-owned banks as a whole. While the following will be used to somewhat explain how the independent factors affect the dependent variable.

Table 3. Random Effect Model Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.835386	3.080466	2.218945	0.0316
SIZE	-0.163279	0.162967	-1.001912	0.3217
NPL	-0.557461	0.073989	-7.534384	0.0000
INTEREST	0.154639	0.070528	2.192583	0.0335
LDR	-0.017288	0.008157	-2.119481	0.0396
	Effects Specification		**S.D.**	**Rho**
Cross-section random			0.938293	0.8126
Idiosyncratic random			0.450663	0.1874
	Weighted Statistics			
R-squared	0.651953	Mean dependent var		0.333871
Adjusted R-squared	0.621016	S.D. dependent var		0.729516
S.E. of regression	0.449102	Sum squared resid		9.076175
F-statistic	21.07324	Durbin-Watson stat		1.738769
Prob(F-statistic)	0.000000			

Source: Processed by researchers, 2023

The theoretical impact of firm size on profitability is supported by the statistical test findings shown in Table 3. This is due to a number of reasons, such as economies of scale, access to resources, trust and reputation, and portfolio diversification for small businesses (Al-Najjar, 2009); (Mollah, 2011); (Harisa et al., 2019). Because they have the financial strength to sustain their firm's financial performance, large firms typically draw more investors.

According to (Tan, 2016) increasing the size of assets, can increase profitability, maintain the growth and health of the firm. According to research findings (Al-Matari, 2023), economies of scale and cost efficiency can expand banking assets. The size of a bank is directly correlated with its profitability; however, banks that are too big will experience negative returns due to bureaucratic complexity and other factors. Because of this, the size of the business has a significant impact on financial reporting and firm profitability.

The analysis of state-owned banks from 2013 to 2022, however, revealed that firm size has no appreciable impact on the profitability of state-owned banks listed on the IDX from 2013 to 2022. This is demonstrated by a negative coefficient, indicating that an increase in firm size is not accompanied by an increase in firm profitability. For investors and potential investors, the firm size, which is reflected by the firm's huge total assets, is seen negatively. The study's findings are consistent with research (Al-Najjar, 2009); (Mollah, 2011); (Harisa et al., 2019), which found that asset size had no bearing on bank profitability.

These findings show that asset management is inefficient because funding for state-owned banks is prioritized over providing for and eliminating non-performing loans. Likewise with research (Lin & Zhang, 2009), (Javaid & Alalawi, 2018), asset size has no effect on profitability, because large banks in China are not efficient in managing assets. The findings of this study suggest that state-owned banks are ineffective at managing assets. This is due to the fact that asset growth is given the lowest priority in order to cover problematic productive assets. Additionally, a large portion of funding is directed toward the consumer and infrastructure financing sectors, which highlights the significant credit risk that state-owned banks must manage

The role of a bank as an intermediary entity is to distribute capital with the intention of boosting the economy and making a profit. Credit risk, which is the risk of non-payment of credit in line with the mutually agreed-upon arrangement between the bank and the customer, is one of the hazards that banks face when channeling funds, according to (Millar & Anwar, 2008); (Rivai et al., 2007).

For banks, credit risk remains a significant issue; a high NPF ratio implies high credit risk and is a contributing factor in bank failure. Credit risk is the likelihood that the debtor may default or fail to repay the obligation. If credit risk rises, the bank may suffer losses as a result of bad debt or default, which could have an impact on the bank's financial health and, ultimately, its profitability.

The results of the study demonstrate that state-owned banks still have a very high credit risk. This is demonstrated by the significant negative impact NPLs have on state-owned banks' profitability. In general, higher credit risk is linked to lower state-owned bank profitability as well as higher borrowing costs in the form of bank interest, which investors seek as compensation for the high risk. The findings of this study are consistent with earlier studies by (Supiyadi & Purnomo, 2018); (Korri & Baskara, 2019), that found that NPL had an inverse relationship with profit or profitability.

In order to lower potential credit risk, state-owned banks must focus more on credit risk management. Credit risk can be managed and bank stability and profitability maintained through the use of measures including increased credit monitoring, more thorough credit analysis, and conservative lending practices. Because the level of soundness of financing has a significant impact on the level of bank profitability, non-performing loans are a sign of high credit risk.

As a result, state-owned banks must maintain asset quality to ensure that the growth in financing is correlated with bank profitability. The longer a firm is stable and performs well, the more important managing credit risk becomes. The better controlling credit risk, the lower the danger of debtor default and the longer a company remains profitable, (Supiyadi et al., 2017).

Large banks have better protection against interest rate fluctuations, when market prices change, income and costs can adjust more quickly, so that net operating income has no effect, but banks that carry out efficiency policies, their balance sheets do not match changes in interest rates. so that income fluctuates rapidly when interest rates change, (Flannery, 1983). Interest rate is income received by creditors and is a burden for debtors which is paid when due. One of the factors influencing whether investors will invest or save is the interest rate.

According to the literature, the impact of interest rates on bank profits varies significantly depending on interest rate exposure and the chosen business model, which in turn depends on how the level of maturity has changed and how risk management tools, such as derivatives, have been used. (Borio et al., 2017) claim that several aspects of bank profitability, including net interest margin, non-interest revenue, and loan loss provisions, are impacted by changes in interest rates and the yield curve's slope.

According to (Claessens et al., 2018), the majority of theoretical and empirical studies show that banks' net interest margins are lower when bank interest rates are low. This is because banks do not want to lower interest rates for particular types of deposits and other liabilities below a certain level, as this would encourage depositors and creditors to switch to other forms of cash savings.

The findings demonstrated that interest rates have a favorable impact on the profitability of state-owned banks listed on the Indonesia Stock Exchange (IDX), as demonstrated by a positive coefficient. This finding suggests that when interest rates rise, the profitability of these banks tends to increase. When interest rates rise, banks have the opportunity to earn higher income from lending or investment activities, which can increase interest margins and in turn contribute to bank profitability Additionally, higher interest rates may persuade clients to save money or make investments that would yield a greater return for the bank.

The findings of this study confirm those of earlier studies (Kariuki, 2023); (López-Penabad et al., 2022); (Borio et al., 2017); (Claessens et al., 2018), that the level of interest rates have a positive impact on bank profitability. However, the impact of interest rates on bank profitability can also be influenced by other factors, such as general economic conditions and monetary policies used. The complicated interplay between interest rates and bank profitability is another factor that varies from bank to bank. According to (Borio et al., 2017), banks have a greater capacity to make profits from the net interest margin between loans and applications during periods of rising interest rates and a greater requirement during periods of falling interest rates to do so.

Other studies' findings differ from those of this one, such as research (Molyneux et al., 2019), which came to the conclusion that negative interest rates have not yet significantly decreased bank profitability or, in particular, net interest margins. (Madaschi & Nuevo, 2017) discovered the same research findings after studying banks in Sweden and Denmark. The fact that the effect of low (negative) interest rates on profitability varies depending on the characteristics of the bank (Molyneux et al., 2019), confirms the existence of unique characteristics that significantly affect the relationship between negative interest rates and bank margins. These special characteristics include bank size, the bank's funding structure and business model, including asset repricing, and product line specialization. The lower sensitivity of net interest margins to interest rate volatility is explicable in part by bank size.

Banking profitability cannot be separated from banking liquidity, which also serves as a barometer of a bank's soundness. The amount of liquidity a bank has will decide its capacity to meet upcoming short-term obligations. Banking liquidity, according to (Moyes et al., 2011); (Hunt-Ahmed, 2013), refers to a bank's capacity to accommodate short-term requests for funds from customers or depositors. State-owned banks will find it challenging to fulfill their commitments when investment possibilities present themselves if they are exposed to liquidity risk.

The results of the study show that liquidity has a negative effect on the profitability of state-owned banks listed on the Indonesia Stock Exchange (IDX), this shows that state-owned banks have poor liquidity, negative liquidity has a significant impact on decreasing bank profitability. Liquidity refers to a bank's ability to meet payment obligations as they fall due with sufficient resources. If the level of liquidity is low, the bank may face difficulties in meeting obligations and handling customers' funding needs.

This can lead to additional costs, increased risk and reduced profitability. Good liquidity management is important in efforts to maintain bank profitability. Banks need to ensure the availability of adequate liquidity to deal with possible sudden funding needs. Measures such as good asset and liability management, periodic monitoring of liquidity, and appropriate policies regarding investment and funding can help optimize liquidity and contribute to bank profitability.

According to the findings of the same study, liquidity had a detrimental impact on bank profitability in Pakistani banks (Dawood, 2014), and a similar finding was made in a study of 216 commercial banks in Africa (Francis, 2013). The ability to pay can be determined by comparing the firm's power to pay with all of its maturing obligations. Liquidity management is very influential on the growth of banks and generally can have an impact on the country's economy. While having adequate liquid tools is a strength, firms with these tools do not always automatically fulfill financial obligations that are due.

Banks must increase their margins to avoid liquidity risk. If a bank is thought of as risk averse, then the following holds true in unfavorable situations: the higher the bank's risk, the higher the compensation margin for that risk, and vice versa. In a competitive banking system, liquidity is usually not the main concern of banks, besides liquidity, there are other factors that are not so important. In carrying out its business, banks must always balance between having sufficient liquidity and reasonable profitability, or achieving profitability and meeting sufficient capital requirements.

The results of this study suggest that signaling theory plays a role in investors' decision to invest, which in turn affects firm profitability, based on the exposure of the influence of the four independent variables on the profitability of state-owned banks listed on the IDX for the period of 2013–2022. Firm profitability as assessed by ROA is influenced by firm size as measured by ln Total Assets, credit risk as measured by NPL, interest rates as measured by regulatory interest rates, and liquidity as measured by LDR.

This demonstrates that all information published by the firms can be a positive or negative signal for investors, so the more positive the interest of investors to invest, the more positive the impact on firm profitability. Information relating to firm size, credit risk, interest rates, and profitability reported by the firm in the financial statements is also a signal for investors as a consideration for making investment decisions.

CONCLUSION

According to the research findings, the following describes how the independent variables in this study affected the dependent variable (profitability): The profitability of state-owned banks is unaffected by firm size. The study's findings show that growing a firm's size does not necessarily result in growing its profitability, that state-owned banks are inefficient at managing their assets because they prioritize asset growth to cover problematic productive assets, and that the consumer finance and infrastructure sectors receive more funding than other sectors.

The study's findings demonstrate that credit risk significantly lowers the profitability of state-owned banks. This shows that the degree of profitability produced by a bank decreases as the credit risk it faces increases, while the cost of borrowing—in the form of bank interest sought by investors as compensation for the high risk—increases. The study's findings demonstrate that bank interest rates have a favorable impact on the state-owned banks' profitability when they are listed on the Indonesia Stock Exchange (IDX), these results show that the profitability of these banks tends to rise in response to rising interest rates because rising interest rates give banks the chance to increase their income from lending or investment activities, which can increase interest margins and ultimately boost bank profitability.

According to research findings, state-owned banks' profitability is significantly impacted negatively by liquidity from the perspective of state-owned banks. This finding suggests that the higher the level of bank liquidity, the lower the level of profitability that can be realized. Conversely, if the level of liquidity is low, the bank may have trouble meeting obligations and handling customer funding needs, which can result in higher costs, higher risk, and lower profitability. In general, credit risk, interest rates, and liquidity have a big impact on how profitable state-owned banks are. To boost profitability, state-owned banks' performance can be managed with a focus on these factors.

RECOMMENDATION

Based on research findings, state-owned banks must pay attention to asset growth which has a positive impact on firm in the form of increased profitability, therefore state-owned banks must diversify assets and optimize financing on productive assets. State-owned banks need to implement policies in order to reduce credit risk, be more selective in channeling funding to customers, through external and internal monitoring of funding distribution. Internal supervision is carried out by exercising intensive control over the process of disbursement of funds.

External control is carried out in the meantime by keeping track of and making efficient use of cash for consumers. In addition, state-owned banks must pay attention to liquidity by increasing the LDR ratio, at a safe limit, because a high LDR ratio indicates that banks are dealing with risky assets. High interest rates have a positive impact on profitability, but if state-owned banks are not careful, they can have a negative impact on profitability because creditors will consider delaying or switching to other financial institutions. It is anticipated that state-owned banks will be able to sustain and improve their profitability by taking into account these four elements.

The limitation in this study only tests the state-owned banks profitability, for future research to expand the study by testing profitability by adding private banks and adding other variables such as macroeconomic variables ie inflation, GDP and other variables such as CAR, efficiency, bank services, and the amount of employee.

REFERENCES

Al-Matari, E. M. (2023). The determinants of bank profitability of GCC: The role of bank liquidity as a moderating variable—Further analysis. International Journal of Finance and Economics, 28(2), 1423–1435. https://doi.org/10.1002/ijfe.2485

Al-Najjar, B. (2009). Dividend behavior and smoothing: New evidence from Jordanian panel data. Studies in Economics and Finance, 26(3), 182–197. https://doi.org/10.1108/10867370910974017

Borio, C., Gambacorta, L., & Hofmann, B. (2017). The influence of monetary policy on bank profitability. International Finance, 20(1), 48–63. https://doi.org/10.1111/infi.12104

Claessens, S., Coleman, N., & Donnelly, M. (2018). “Low-For-Long” interest rates and banks’ interest margins and profitability: Cross-country evidence. Journal of Financial Intermediation, 35, 1–16. https://doi.org/10.1016/j.jfi.2017.05.004

Dawood, U. (2014). Factors impacting profitability of commercial banks in Pakistan for the period of (2009-2012). Ijsrp.Org, 4(3), 1–7. http://www.ijsrp.org/research-paper-0314.php?rp=P272465

Flannery, M. J. (1983). Interest Rates and Bank Profitability: Additional Evidence. Journal of Money, Credit and Banking, 15(3), 355. https://doi.org/10.2307/1992486

Francis, M. E. (2013). Determinants of Commercial Bank Profitability in Sub-Saharan Africa. International Journal of Economics and Finance, 5(9), 134–147. https://doi.org/10.5539/ijef.v5n9p134

Gitman, L. J., & Zutter, C. J. (2015). Principles of Managerial Finance Global Edition (40th ed.). Pearson Education Limited.

Harisa, E., Adam, M., & Meutia, I. (2019). Effect of Quality of Good Corporate Governance Disclosure, Leverage and Firm Size on Profitability of Islamic Commercial Banks. International Journal of Economics and Financial Issues, 9(4), 189–196. https://doi.org/10.32479/ijefi.8157

Hunt-Ahmed, K. (2013). Contemporary Islamic Finance Innovations, Applications, and Best Practices. In Contemporary Islamic Finance: Innovations, Applications, and Best Practices. JohnWiley & Sons, Inc. All. https://doi.org/10.1002/9781118653814

Javaid, S., & Alalawi, S. (2018). Performance and Profitability of Islamic Banks in Saudi Arabia: An Empirical Analysis. Asian Economic and Financial Review, 8(1), 38–51. https://doi.org/10.18488/journal.aefr.2018.81.38.51

Kariuki, R. K. (2023). Influence of interest rates and performance of lending institution in Africa. A Critical Literature Review. International Journal of Modern Statistics, 3(1), 1–11. https://doi.org/10.47941/ijms.1170

Kasmir. (2018). Analisis laporan keuangan (11th ed.). Rajawali Pers.

Korri, N. T. L., & Baskara, I. G. K. (2019). Pengaruh Capital Adequacy Ratio, Non Performing Loan, Bopo, Dan Loan To Deposit Ratio Terhadap Profitabilitas. E-Jurnal Manajemen Universitas Udayana, 8(11), 6577. https://doi.org/10.24843/ejmunud.2019.v08.i11.p10

Lin, X., & Zhang, Y. (2009). Bank ownership reform and bank performance in China. Journal of Banking and Finance, 33(1), 20–29. https://doi.org/10.1016/j.jbankfin.2006.11.022

López-Penabad, M. C., Iglesias-Casal, A., & Silva Neto, J. F. (2022). Effects of a negative interest rate policy in bank profitability and risk taking: Evidence from European banks. Research in International Business and Finance, 60(December 2021). https://doi.org/10.1016/j.ribaf.2021.101597

Madaschi, C., & Nuevo, I. P. (2017). The profitability of banks in a context of negative monetary policy rates: the cases of Sweden and Denmark. In European Central Bank Occasional Paper Series 195 (Issue 195).

Millar, R., & Anwar, H. (2008). Islamic Finance: A Guide for International Business and Investment (1st ed.). GMB Publishing Ltd. www.globalmarketbriefings.co

Mollah, S. (2011). Do emerging market firms follow different dividend policies?: Empirical investigation on the pre-and post-reform dividend policy and behavior of Dhaka Stock Exchange listed firms. Studies in Economics and Finance, 28(2), 118–135. https://doi.org/10.1108/10867371111137120

Molyneux, P., Reghezza, A., & Xie, R. (2019). Bank margins and profits in a World of Negative Rates. Journal of Banking and Finance, 107, 105613. https://doi.org/10.1016/j.jbankfin.2019.105613

Moyes, R. C., McGuigan, J. R., Rao, R., & Kretlow, W. J. (2011). Contemporary Financial Management (12th ed.). Nelson Education, Ltd.

Nainggolan, E., & Sitorus, J. S. (2021). Pengaruh Ukuran Bank, Struktur Modal, Suku Bunga Dan Loan To Deposit Ratio Terhadap Profitabilitas Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia. Journal of Economic, Business and Accounting (COSTING), 4(2), 575–579. https://doi.org/10.31539/costing.v4i2.1973

Rivai, V., Veithzal, A. P., & Idroes, F. N. (2007). Bank and Financial Institution Management: Conventional & Sharia System (1st ed.). Raja Grafindo Persada. www.rajagrafindopersada.com

Sufian, F. (2009). Determinants of bank profitability in a developing economy: Empirical evidence from the China banking sector. Journal of Asia-Pacific Business, 10(4), 281–307. https://doi.org/10.1080/10599230903340205

Supiyadi, D., Dodi, D., & Machmud, A. (2017). Factors that Influence Credit Risk of Financing Institutions in Indonesia. Proceedings of the 2nd International

Conference on Economic Education and Entrepreneurship, 1, 159–163. https://doi.org/10.5220/0006882401590163

Supiyadi, D., & Purnomo, B. S. (2018). Determinants of Sharia Bank Profitability in Indonesia. Jurnal Riset Akuntansi Dan Keuangan, 6(1), 1–12. https://doaj.org/article/0477a1243d8c4a5fa3cfdd6f9e843908

Tan, Y. (2016). Investigating the Performance of Chinese Banks: Efficiency and Risk Features. https://doi.org/10.1057/978-1-137-49376-7