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THE ROLE OF EXCHANGE RATE AS A MODERATING VARIABLE IN CAR, NPF AND BOPO INFLUENCING PROFITABILITY

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Abstract:

Background: A bank's capacity to generate earnings on the goods produced by its daily operations is a crucial sign of its financial health. With the exchange rate serving as a moderating element.
Purpose: The objective of this study is to ascertain how operating costs, CAR, NPF, and BOPO affect ROA.
Design/methodology/approach: Regression analysis is one of the quantitative methods used in the research process. As an illustration, take into account Islamic Commercial Banks that routinely release their financial reports for the years 2018–2022 and are listed on the Indonesia Stock Exchange. 35 samples from 7 different organizations were collected for this study using the purposeful sampling technique. The data was analyzed using partial least squares-structural equation modeling (PLS-SEM).
Findings/Result: The exchange rate, BOPO, and NPF all have a major effect on ROA. Meanwhile, the CAR has little effect on ROA in Islamic Commercial Banks between 2018 and 2022. The impact of exchange rates on ROA can be lessened for BOPO and NPF, but not for CAR, as the latter has no control over ROA
Conclusion: The study's conclusions demonstrate that the exchange rate, BOPO, and NPF all have a major effect on ROA. Meanwhile, the CAR has little effect on ROA in Islamic Commercial Banks between 2018 and 2022. The impact of exchange rates on ROA can be lessened for BOPO and NPF, but not for CAR, as the latter has no control over ROA. The establishment of an efficient capital adequacy ratio for Islamic banking is facilitated by this research, which enhances financial performance.
Originality/value (State of the art): The originality/value (State of the art) of this research is by providing empirical evidence about the importance of risk management and operational efficiency in determining the financial performance of Sharia Commercial Banks. On the other hand, this research also highlights that although capital is important, operational factors and credit risk are more dominant in influencing ROA.

Keywords: CAR, BOPO, NPF, ROA, Islamic Commercial Banks

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INTRODUCTION

Islamic banks have expanded rapidly in Indonesia as a result of the financial industry's commitment to Islamic law and the consequences of creating a parallel banking system. Banks that have previously operated traditionally can now form sharia-based banks thanks to the dual system (Handayani et al. 2021; Suhendri et al. 2017). Chord & Lyandres (2021) in Aziza & Aviola (2024) stated that the agency problem that arises in the banking sector is information asymmetry. Islamic banks must outperform regular banks in order to compete in Indonesia's domestic banking industry and gain the confidence of the general people. Increasing profitability is one method for a bank to show its worth and draw in more clients (Prasetyo & Susetyohadi, 2022; Wibisono & Wahyuni, 2017). Profitability is regarded as one of the finest indicators of a company's performance. Analyzing a company's profitability is one technique to assess its success. Higher profitability is connected with the company's better financial success (Hasyim et al. 2023; Putri, 2022).

The scientific status of research on the influence of operational costs, CAR (Capital Adequacy Ratio), NPF (Non-Performing Financing), and BOPO (Operating Costs to Operating Income) on ROA (Return on Assets) in Islamic commercial banks currently shows strengthening and confirmation of the results of previous studies, with adjustments to changes in economic conditions, regulations, and the use of more advanced research methodologies. This ensures that research findings remain relevant and reliable for effective managerial decision making.

The reason for conducting research on the effect of operating costs, CAR, NPF, and BOPO on ROA in Islamic commercial banks is by understanding how factors such as operating costs, CAR, NPF, and BOPO affect ROA, banks can evaluate how efficient and effective they are in using their assets to generate profits. CAR, NPF, and BOPO are important indicators in banking risk management. Understanding the relationship between these factors and ROA helps banks assess how well they manage credit and operational risks, and whether they have sufficient capital to cover potential losses. By examining the impact of BOPO on ROA, banks can determine whether they need to improve operational efficiency to increase profitability. By examining the impact of NPF on ROA, banks can take preventive steps to maintain financial health.

Current scientific status/interesting points for previous research/previous/new things of this research because it contributes to understanding the financial performance and stability of Islamic banks, which operate on different principles compared to conventional banks, namely: (1). Current Scientific Status: Performance Measurement: ROA is widely used to measure bank profitability, indicating how efficiently they use their assets to generate profits. For Islamic banks, which adhere to Sharia principles, the factors that influence ROA may differ due to the unique nature of their operations, including profit sharing and risk sharing mechanisms. (2). Interesting Points from Previous Research Previous studies have shown mixed results regarding the impact of these factors on ROA in Islamic banks. For example, some studies have found a significant negative impact of NPF on ROA, while others have found that CAR has a positive impact on ROA. The BOPO ratio consistently shows a negative impact on ROA, highlighting operational efficiency as an important factor. Many researchers have compared the performance of Islamic banks with conventional banks, focusing on how different operating principles affect profitability and risk management. These studies often show that Islamic banks tend to have a lower risk profile but may face challenges in profitability due to their compliance with Shariah law. (3) New Research: Integration of Multiple Factors. Recent research trends emphasize the integration of multiple financial indicators (such as CAR, NPF, BOPO, and operating expenses) to provide a comprehensive view of their combined impact on ROA. This holistic approach offers deeper insights than studying these factors separately. Shariah Governance and Risk Management: There is an increasing focus on how the quality of Shariah governance and risk management practices in Islamic banks impact financial performance, including ROA. This area is relatively new and requires more empirical validation.

The approach to solving the research problem of the effect of operating costs, CAR, NPF, and BOPO on ROA through several systematic steps including data collection, statistical analysis, and interpretation of results. Determine the specific objectives of the study to identify how operating costs, CAR, NPF, and BOPO affect ROA in Islamic commercial banks. Based on literature and theoretical studies, formulate hypotheses to be tested. Use relevant secondary data such as annual financial reports of Islamic commercial banks, bank supervision reports from financial authorities, and macroeconomic data related to banking conditions.

Collect quantitative data on research variables, including operating cost data, CAR, NPF, BOPO, and ROA. Check data to ensure accuracy, completeness, and consistency. Validate data by comparing various sources or periods to detect errors or anomalies. Use a model to analyze the effect of operating costs, CAR, NPF, and BOPO on ROA. Conduct a significance test of the independent variable coefficient, to determine whether the relationship between variables is significant. interpreting the regression coefficient values for each independent variable (CAR, NPF, BOPO) to determine how much influence each variable has on ROA. Providing conclusions based on the results of the analysis regarding the influence of each variable on ROA in Islamic commercial banks. Discussing the practical implications of the findings for bank management, including strategies to improve operational efficiency, strengthen capital, and manage credit risk effectively. Providing data-based recommendations for managerial decision making that can help improve the profitability and financial stability of Islamic banks.

Based on the Table1, sharia Commercial Banks (BUS) ROA value growth is erratic and tends to rise due to a variety of factors. Among them are the swift advancements in technology and the moderate lifestyle that Islamic banks provide by providing simple online banking access. The BOPO value for Sharia Commercial Banks for the years 2018–2020 can be deemed inefficient, as indicated by the above table, since it surpasses the 85% barrier established by Bank Indonesia. Meanwhile, the NPF and CAR values for Sharia Commercial Banks from 2018 to 2022 are within a respectable range. (Sudaryanti et al. 2018). In financial institution, apart from BOPO, NPF and CAR, we must examine the exchange rate since it affects the profitability level. The actual returns on investment will depend on the exchange rate. It goes without saying that a falling currency will reduce the purchasing power of income and capital gains from any kind of investment. The way Islamic banks operate will be impacted by this drop in investment. The presence of a connection between currency exchange rates and bank profitability Any changes in the exchange rate will have an effect on banks' profits (Hertina et al. 2021; Kharisma et al. 2020).

The purpose of this study was to characterize and determine how ROA, which is influenced by BOPO, NPF, and CAR, is affected by currency rates in Islamic Commercial Banks

METHODS

Quantitative descriptive is the approach that researches used in this study. Quantitative descriptive research is a research method that involves collecting and analyzing numerical data to describe characteristics, trends, or phenomena without manipulating variables. This type of research aims to provide an accurate and systematic description of a population or phenomenon, often using statistics to summarize and present the findings.

The data is produced in numerical form, generated from secondary data in financial report, obtained from IDX on its official website. The process of collecting data was obtained by documenting and observing Sharia Commercial Banks in Indonesia. Researchers also utilize literature reviews by referencing relevant articles and books as a foundation for their theoretical framework.. The population for this study is 12 Sharia Commercial Banks and sample size is determined by purposive sampling technique, 7 Sharia Commercial Banks were obtained that met the criteria, these are Panin Dubai Syariah, BTPN Syariah, Bank Mega Syariah, Bank Muamalat Indonesia, Bank NTB Syariah, BCA Syariah and Bukopin Syariah with the criteria of Sharia Commercial Bank (BUS) which had consistent and complete financial records through the publication of annual report in 2018-2022.

Table 1. Value of ROA, BOPO, NPF and CAR in Sharia Commercial Bank period 2018-2022

Indicator	Years				
	2018	2019	2020	2021	2022
ROA (Return on Assets) (%)	1.28	1.73	1.40	1.55	2.02
BOPO (Operating Costs to Operating Income) (%)	89.18	84.45	85.55	84.33	77.28
NPF (Non-Performing Financing) (%)	3.26	3.23	3.13	2.59	3.35
AR (Capital Adequacy Ratio)(%)	20.39	20.59	21.64	25.71	26.28
Exchange Rate	14.246	14.146	14.572	14.311	14.870

Source: SPS OJK and BI, processed 2022

The data analysis technique used PLS-SEM assisted by Smart PLS version 3.29. SEM-PLS is used in this study due to its many benefits, which include the ability to test direct moderating variables. Testing the outer, inner, and hypothesis models is what the analysis stage of PLS-SEM involves. The outer model of testing is composite reliability, AVE, convergent validity, validity. Hypothesis testing with the criteria of t-statistic value ≥ t-table (1.96) or probability value ≤ alpha (0.05).

Effect of BOPO on ROA. Optimizing the use of resources will help Islamic banks become more profitable, ultimately increasing overall company efficiency. The aim of BOPO is to reduce operational risks associated with unpredictable banking transactions. High BOPO indicates bank operational inefficiency, which is characterized by high operational costs, which can reduce financing levels and profitability (Purwasih & Wibowo, 2021). Because high operational costs cause income to decrease, high costs in generating profits cause low operational efficiency, which has an impact on reducing the amount of funds placed by banks in financing. According to Arieffiandi et al. (2016), Kusumastuti & Alam (2019); Mayunita (2017); khalifaturofi'ah & Ulum (2020), ROA is influenced by BOPO. H1: ROA is influenced by BOPO.

Effect of NPF on ROA. NPF is one of the factors that increases Islamic bank profits. The ideal NPF is below 5%, while a low NPF indicates less risk in Islamic banking. An increase in NPF causes ROA to decrease, which shows that an increase in financing risk can have a negative impact on the bank's financial performance. (Sulistiani & Iswanaji, 2021. The higher the NPF, the more problematic financing that causes increased costs and decreased performance. According to Wahyudi (2020);.Ch (2017) and Izzah et al. (2019), NPF has an influence on ROA. H2: NPF has an influence on ROA

Effect of CAR on ROA. It is normal for banks to survive without providing financing in this situation because doing so will increase the amount of risk assets they hold, which in turn requires additional capital to meet CAR requirements. This means that public trust in banks as capital lenders will decrease if the CAR is low. Bank profitability and financial performance tend to increase along with high CAR. With a higher CAR, banks will be better able to absorb risk from any financing or assets that are profitable but risky. A healthy bank is characterized by a high level of capital adequacy, which is measured by comparing capital to risky assets. H3: CAR has an effect on ROA.

Effect of Exchange Rates on ROA. The decline in the rupiah exchange rate may reflect a decline in public demand for this currency due to the decline in the role of the national economy (Hertina et al. 2020). A stronger value of the US dollar or an appreciation of the rupiah will both increase the profitability of Islamic banks. The profitability (ROA) of Islamic banks decreases if the value of the US dollar weakens. This shows how exchange rate fluctuations can affect the profitability of Islamic banks. One of the main macroeconomic factors that influences Islamic bank operations is the exchange rate; The tighter the control of the USD exchange rate against the Rupiah, the more stable the business environment for trading and buying and selling will be. H4: The exchange rate influences ROA.

Effect of Exchange Rate, moderated BOPO on ROA. Islamic banks have the potential to generate profits and support economic growth, where the exchange rate plays a very important role (Hertina et al. 2020). Changes in the USD exchange rate against the Rupiah can affect the economy. Compared with other macroeconomic indicators, Islamic banks show good internal performance, but their Return on Assets (ROA) has not been calculated optimally. The statistical findings in this research show that ROA is significantly influenced by Operational Costs to Operating Income (BOPO), with the exchange rate as a moderating factor. In line with this, Islamic bank profitability (ROA) will increase along with the increase in income from financing distribution which is also influenced by the exchange rate. Therefore, Islamic bank management must pay attention to external and internal conditions to maintain business continuity and meet the needs of all parties involved. Research by Halimah & Komariah (2017), Astuti (2022), Azmi et al. (2022); Ishak et al. (2021) show that BOPO which is moderated by the exchange rate has a large impact on ROA. H5: BOPO modified by the exchange rate has an impact on ROA.

NPF moderated by exchange rate on ROA. The business world in various sectors is predicted to increase demand for bank financing due to the decline in the exchange rate. Although sometimes small fluctuations occur in the amount of non-performing financing, this can cause the NPF level to increase. An increase in NPF shows that the bank does not manage its funding professionally, which results in losses for the bank.

According to Nugroho et al. (2021), Fathimah & Hertina (2022), Ayuni Situmorang (2022), NPF which is moderated by the exchange rate has an influence on ROA. H6: NPF moderated by the exchange rate has an influence on ROA.

Effect of Moderated CAR, Exchange Rates on ROA. The proportion of funds invested in securities will decrease as the number of Islamic banks providing financing increases. The percentage of income from securities will decrease if the financing receives more funding. The increase in exchange rates and the long-term inability of Islamic banks to carry out their core business of distributing financing, coupled with macroeconomic conditions, will cause a decline in return on assets (ROA) (Widyakto et al. 2023). However, in the short term, there is no real impact of CAR moderated by the exchange rate on ROA. As a result, to maintain operations and maintain an appropriate ROA, Islamic banks must maximize income through debt distribution. Sausan et al. (2020) and Widarjono (2020) show that CAR which is moderated by the exchange rate has an impact on ROA. H7: CAR modified by the exchange rate has an impact on ROA.

Based on Figure 1, it is suspected that the exchange rate, BOPO, and NPF all have a major effect on ROA. Meanwhile, CAR has an effect on ROA. The impact of the exchange rate on ROA, CAR has control over ROA.

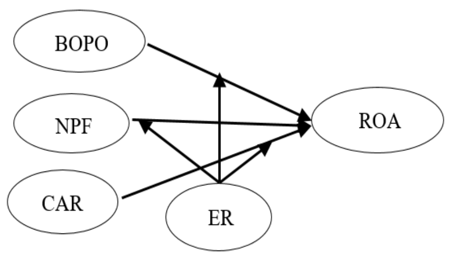

Figure 1. Framework (Non-Performing Financing (NPF); Capital Adequacy Ratio (CAR); Exchange Rate (ER); Return on Assets (ROA); Operating Costs to Operating Income (BOPO)

RESULTS

Analysis Outer Model (Measurement Model)

Convergent validity, AVE and Composite Reliability

Based on Table 2, the outer loading value of each indicator is > 0.70. The ROA measurement indicator is considered valid so all variables are reliable and each construct reliability indicator is different. The AVE value is > 0.5 so that all indicators meet the strong convergence requirements.

Discriminant Validity

Based on the Table 3, it is evident from the above table that the outcomes of BOPO indicator > other indicators, it shows in the next column, NPF indicators < BOPO and ER, on CAR indicators < other indicators, while the Exchange Rate (ER) indicators > from CAR and NPF indicators. Then the conclusion is, the four indicators have a affect on ROA.

Analysis Model Structural (Inner Model)

R- Square

Based on Table 4, R-square, the influence of BOPO, NPF, CAR, Exchange Rate as moderate variables on ROA is worth 0.711 or 71.1% (strong category), while the remaining 28.9% is explained by factors outside the research.

Path Coefficients

It is claimed that exogenous variables have a major impact on endogenous variables in Figure 2. it is known that path coefficient to show the direct relationship between variables in the structural model. This coefficient measures how strong and how far the relationship between the independent variable (cause) and the dependent variable (effect) is. Path coefficient has a value between -1 and 1. A positive value indicates that when one variable increases, the other variable also increases (positive relationship). It can be seen that all variables are positive.

Table 2. Convergent validity, AVE and Composite Reliability

Variable	Item Measurement	Outer Loading	Cronbach's Alpha	Composite Realibility	AVE	Conclusion
Operating Costs to Operating Income (X1)	BOPO.2018	0.911				Reliable
	BOPO.2019	0.894				Reliable
	BOPO.2020	0.730	0.908	0.931	0.730	Reliable
	BOPO.2021	0.894				Reliable
	BOPO.2022	0.829				Reliable
Non Performance Financing (X2)	NPF.2018	0.930				Reliable
	NPF.2019	0.894				Reliable
	NPF.2020	0.967	0.964	0.972	0.873	Reliable
	NPF.2021	0.929				Reliable
	NPF.2022	0.950				Reliable
Capital Adequacy Ratio (X3)	CAR.2018	0.824	0.930	0.947	0.781	Reliable
	CAR.2019	0.870				Reliable
	CAR.2020	0.948				Reliable
	CAR.2021	0.911				Reliable
	CAR.2022	0.861				Reliable
Exchange Rate (M)	ER.2018	0.988	0.988	0.990	0.953	Reliable
	ER.2019	0.978				Reliable
	ER.2020	0.989				Reliable
	ER.2021	0.990				Reliable
	ER.2022	0.935				Reliable
Return on Assets (Y)	ER.2021	0.990	0.994	0.995	0.976	Reliable
	ER.2022	0.935				Reliable
	ROA.2018	0.994				Reliable
	ROA.2019	0.995				Reliable
	ROA.2020	0.971				Reliable
	ROA.2021	0.994				Reliable
	ROA.2022	0.986				Reliable

Table 3. Discriminant validity

	ROA	BOPO	NPF	CAR	ER	Conclusion
ROA						Valid
BOPO	0.976					Valid
NPF	0.772	0.879				Valid
CAR	0.701	0.755	0.854			Valid
ER	0.805	0.835	0.856	0.934		Valid

Note: Non-Performing Financing (NPF); Capital Adequacy Ratio (CAR); Exchange Rate (ER); Return on Assets (ROA); Operating Costs to Operating Income (BOPO)

Table 4. R-Square

	R-Square (R^2)	R-Square Adjusted	Conclusion
Return on Assets	0.711	0.704	Valid

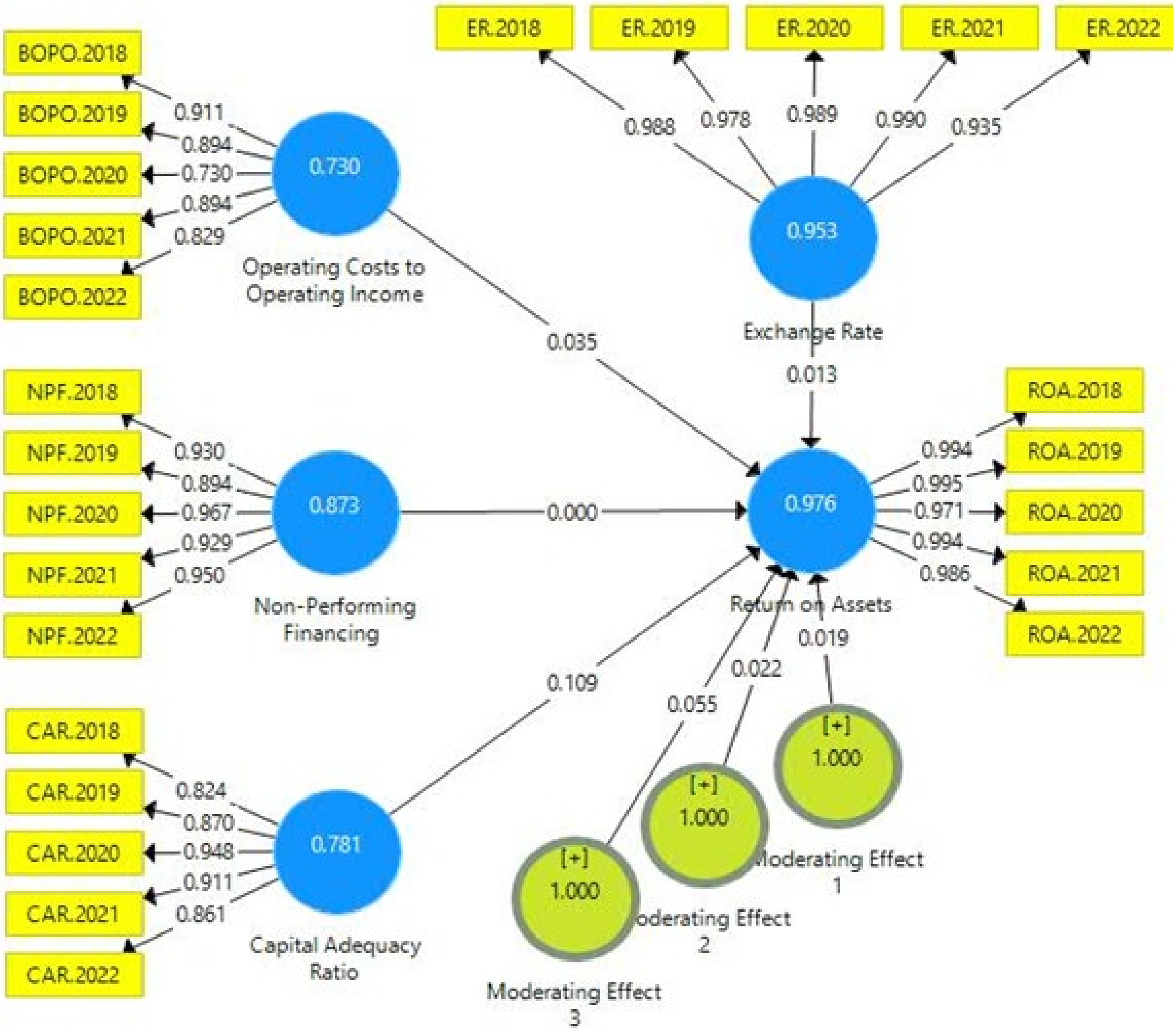

Figure 2. Path Coefficient with Boostrapping

In Table 5, the first hypothesis indicates that BOPO significantly affects ROA, as indicated by the t-statistic (4.740) and p-value (0.035 < 0.05). indicating the acceptance of the first hypothesis (H1). The second hypothesis (H2) is supported since it shows that NPF can have a considerable impact on ROA, as indicated by the t-stat. (2.573), p-value (0.000 < 0.05). The H3, CAR had no discernible impact on ROA based on a p-value 0.109 > 0.05, a t-stat. 0.925, is accepted. The exchange rate has a considerable impact on ROA, as indicated by the fourth hypothesis (H4), which has a t-statistic of 2.223 and a p-value of 0.013 < 0.05. The test results support H5, the exchange rate can reduce the impact of BOPO on ROA. H6 is accepted because the test results show that the exchange rate is proven to be a moderator, with a t-stat. 1.885, p-value (0.022 < 0.05). H7 is accepted because the t-stat. 0.595 and p-value 0.055 > 0.05.

Effect of BOPO on ROA

The data analysis results show that during the 2018–2022 period, BOPO has a substantial impact on ROA in Islamic Commercial Banks listed on the Indonesia Stock Exchange, with a p-value of 0.035 < 0.05. These findings suggest that the BOPO number decreases as bank management performance rises. Making greater use of its resources will help an Islamic bank run more profitably, which will increase the company's overall efficiency. The purpose of BOPO is to reduce the bank's operational risk, which is associated with the unpredictable nature of a banking transaction. The high BOPO indicates the bank's operational inefficiencies, which are marked by high operating expenses and will lower financing and profitability (Hertina & Saudi, 2019; Muliadi, 2022). Due to the bank's high operating costs, which are causing its earnings to decline, the substantial costs incurred in generating its profit will lead to low operational efficiency, which will have an effect on a decline in the number of bank placements of funds in financing. These findings align with the study carried out by (Kusumastuti & Alam, 2019), Return on Assets is significantly impacted by the BOPO, albeit not entirely.

Effect of NPF on ROA

NPF significantly affects ROA, according to the data analysis results, with p-value 0.0000 < 0.05. The study's findings suggest that NPF is one of the elements raising Islamic banks' profits. The signaling hypothesis states that information is added to financial reports to boost profitability in an effort to present a positive picture of the company's performance to investors and its prospects for future growth. A decent NPF is less than 5%, while a tiny NPF indicates less risk involved in sharia banking. increasing NPF values therefore translate into lower ROA, a sign that increasing financing risk may negatively impact banks' financial performance (Yusuf, 2017). Because a greater NPF denotes more problematic financing and its impact on high costs, performance also fell. According to research from(Ch, 2017; Izzah et al. 2019), NPF has a significant impact on ROA.

Effect of CAR on ROA

The data analysis results showed that, with a p-value of (0.109 > 0.05), CAR had no discernible impact on ROA in Islamic Commercial Banks. shows that Islamic banks are allowed to ignore CAR while directing funding since excessive financing distribution typically affects capital adequacy (Hertina & Hidayat, 2018). It is natural for banks to survive in this environment without channeling financing because doing so would increase the amount of risky assets they hold and necessitate capital additions from the banks to comply with CAR requirements. This implies that the public's trust in banks as lenders of capital will decline with a low CAR. A bank's profitability and financial performance both increase with a higher CAR. A bank is better able to absorb the risk of any profitable financing or assets that could pose a risk to the bank when its CAR is higher. Banks that exhibit healthy indicators are those with high levels of capital adequacy. One way to gauge capital adequacy is to compare capital to risky assets.

Effect of Exchange Rate on ROA

Based on the results of data analysis, Exchange Rate have significant effect on ROA in Islamic Commercial Banks with p-value (0.013 < 0.05). The decline in the rupiah exchange rate could be reflect the decline in public demand for the rupiah currency due to decreasing role of the nasitonal economy. The US dollar’s value or the rupiah’s appreciation will both boost the profitability of Islamic banks (Oktaviansyah et al. 2018; Mulyadi & Wibowo, 2023). The profitability (ROA) of Islamic banks has decreased if the value of the US dollar has dropped. This shows how the appreciation or depreciation of the currency will affect the profitability of Islamic banks. One of the key macroeconomic factors influencing the operations of Islamic banks is the exchange rate; the more tightly the USD exchange rate is controlled relative to the rupiah, the more stable the business environment will be for trading and buying and selling.

Table 5. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
BOPO(X1) → ROA(Y)	0.553	0.309	0.138	4.740	0.035
NPF(X2) → ROA(Y)	0.170	0.163	0.104	2.573	0.000
CAR(X3) → ROA(Y)	0.405	0.407	0.491	0.925	0.109
ER (M) → ROA (Y)	0.145	0.138	0.104	2.223	0.013
ER (M) * BOPO (X1) → ROA (Y)	0.165	0.156	0.114	2.803	0.019
ER (M) * NPF (X2) → ROA (Y)	0.369	0.353	0.335	1.885	0.022
ER (M) * CAR (X3) → ROA (Y)	0.107	0.125	0.187	0.595	0.055

Note: Non-Performing Financing (NPF); Capital Adequacy Ratio (CAR); Exchange Rate (ER); Return on Assets (ROA); Operating Costs to Operating Income (BOPO)

The Effect of Exchange Rate Moderated BOPO on ROA

According to data analysis findings, exchange rates are unable to mitigate the impact of BOPO on ROA in Islamic Commercial Banks. For Islamic banks to make money and for the economy to grow, the exchange rate is crucial (Hertina et al. 2020). The economy might be affected if the USD appreciates in value relative to the rupiah. Relative to macroeconomic indicators, Islamic banks perform well internally, but their ROA is not properly calculated. According to the statistical findings of this study, ROA is significantly impacted by the BOPO, which is moderated by exchange rates. Accordingly, Islamic banks' profitability (ROA) will increase with higher income from financing distribution, which is tempered by exchange rates. In light of this, Islamic bank management must consider external conditions in addition to internal ones when conducting business to ensure that the banks' business continuity is sufficiently maintained and that it can satisfy the needs of all parties involved. The findings of this investigation are consistent with research from (Azmi et al. 2022; Ishak et al. 2021), show that the exchange rate-modified BOPO has a major impact on ROA.

Exchange Rate Moderated NPF on ROA

The study's findings indicated that, with a p-value of 0.022 < 0.05, exchange rates could mitigate the impact of NPF on ROA in Islamic Commercial Banks. This requirement is in line with a phenomenon that emerged during the research period, in which Bank Indonesia repeatedly lowered its benchmark exchange rate. However, this did not always result in a decrease in the ratio of non-performing financing, as the impact of the corona virus outbreak hit the economy hard across a number of sectors, burdening business players with turnover that is currently declining. The business community across all sectors is expected to demand more bank financing as a result of the decline in exchange rates. In the meantime, there have occasionally been small fluctuations in the amount of non-performing financing. This is what enables the NPF level to genuinely rise. If the NPF is rising, it suggests that the bank is not handling its funding with professionalism, which will affect bank losses. The findings of this investigation are consistent with research from (Nugroho et al. 2021), indicate that the NPF moderated by exchange rate has a significant effect on ROA.

Effect of Exchange Rate Moderated CAR on ROA

Rxchange rates unable to moderate the impact of CAR on ROA in Islamic Commercial Banks with p-value (0.055 > 0.05). The proportion of funds invested in securities will decrease as the number of Islamic banks providing financing increases. The percentage of income from securities will decline if financing receives more funding. As a result of the exchange rate increase and Islamic banks' long-term inability to conduct their core business of financing distribution and macroeconomic conditions, their return on assets (ROA) will eventually decline. Still, there was no discernible impact in the short run from the CAR moderated by the ROA exchange rate. Consequently, in order to sustain their operations and maintain a suitable ROA, Islamic banks must maximize bank revenue through debt distribution. The study's findings concur with those of studies conducted by (Sausan et al. 2020; Widarjono, 2020), show that the exchange rate-modified CAR has no appreciable impact on ROA.

Managerial Implications.

The managerial implications of these findings for Islamic commercial banks can be divided into several main points: (1) Since the results of the study indicate that the exchange rate cannot moderate the impact of CAR on ROA, Islamic bank managers should focus more on more efficient and effective distribution of financing. This reflects the importance of financing as the main source of income compared to investment in securities. (2) Although the study indicates that the exchange rate does not directly moderate the relationship between CAR and ROA, managers still need to consider foreign exchange risk in managing daily operations, considering its potential impact on macroeconomic conditions and bank financial performance. (3) With indications that income from securities tends to decrease along with increasing financing, managers should focus their strategies to optimize income from the financing sector. This can be done through financing product innovation, improving service quality, and better understanding customer needs. (4) Although CAR is not directly affected by the exchange rate, maintaining the capital adequacy ratio at a healthy level is still important to ensure that banks have adequate financial cushions in the face of potential losses. A strong CAR allows banks to expand their financing business without sacrificing financial stability. (5) Given the potential for a long-term decline in ROA due to macroeconomic conditions and limitations in the ability to run core businesses, Islamic bank managers must adopt a long-term approach in planning business strategies. Product diversification, increasing operational efficiency, and strict risk management are key to maintaining long-term stability and growth. (6) To support increases in financing and maintain service quality, training and development of human resource competencies in the field of Islamic financing are very important. Managers must ensure that staff have a strong understanding of Islamic financial principles and the skills to implement effective financing strategies. (7) Islamic banks must be flexible and responsive to changes in macroeconomic conditions that may affect their performance. Close monitoring of key economic indicators and development of appropriate risk mitigation strategies are necessary to maintain stable performance.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The following conclusions can be drawn from the investigation's findings and the topics raised for discussion: ROA is greatly impacted by NPF, BOPO, and Exchange Rate. Meanwhile, the CAR has little effect on ROA in Islamic Commercial Banks between 2018 and 2022. The impact of exchange rates on ROA can be lessened for BOPO and NPF, but not for CAR, as the latter has no control over ROA. This research contributes to the development of an effective capital adequacy ratio for Islamic banking, which improves financial performance.

Recommendationss

The recommendation of this research are the existence of policies in an effort to encourage increased profitability of Islamic Commercial Banks. Among them are as follows: in order to reduce financing risks and increase bank profitability, Islamic Commercial Banks must manage assets optimally and apply the principle of prudence in financing management. Therefore, Islamic Commercial Banks must always maintain and monitor the BOPO and NPF levels in managing the public funds they receive, because it can have an impact on bank profitability. In addition, in order to compete with conventional banks and obtain a larger market share and higher profits in Indonesia, Islamic Commercial Banks must increase their capital in order to encourage banks to channel credit to the public.

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