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Determinants of Profitability in Islamic Banks Listed on the Indonesia Stock Exchange

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ABSTRACT
The profitability performance of Islamic banks listed on the Indonesia Stock Exchange (IDX) remains a critical issue, particularly regarding how capital strength, financing quality, and operational efficiency shape Return on Assets (ROA). This study aims to analyze the factors that influence the profitability of Islamic banks listed on the Indonesia Stock Exchange (IDX), measured by the Return on Assets (ROA) indicator. The main issue examined is the extent to which the Capital Adequacy Ratio (CAR), Non-Performing Financing (NPF), and Operational Costs to Operating Income (BOPO) affect the profitability performance of listed Islamic banks. The research employs a quantitative approach using secondary data from the annual financial reports of four Islamic commercial banks listed on the IDX for the 2015–2024 period, which are processed into panel data. Samples are selected using purposive sampling, and data are analyzed using panel data regression with a fixed effect model determined through the Chow and Hausman tests. The results indicate that CAR has a positive and significant effect on ROA, while NPF and BOPO have a negative and significant effect on ROA. Simultaneously, CAR, NPF, and BOPO significantly influence profitability, with the coefficient of determination showing a very strong explanatory power of the model.

Keywords : BOPO; Capital Adequacy Ratio; Islamic Banks; Non-Performing Financing; Profitability.

INTRODUCTION

The development of Islamic banking in Indonesia has shown an upward trend, as reflected in the strengthening of asset scale, growth in fund mobilization, and increasingly competitive financing expansion. The Financial Services Authority (OJK) reported that total Islamic banking assets reached IDR 1,028.18 trillion in October 2025, growing by 11.34 percent year-on-year. On the intermediation side, financing amounted to IDR 685.55 trillion (up 7.78 percent year-on-year), while Third-Party Funds (DPK) reached IDR 820.79 trillion (up 14.26 percent year-on-year). Each of these figures represents the highest achievement recorded since the Islamic banking industry began operating in Indonesia.[1] Nevertheless, profitability remains essential to assess whether this growth is sustainable and efficient. For Indonesia, profitability of Islamic banks listed on the capital market is crucial because it reflects performance under public scrutiny and strengthens investor confidence. For foreign countries and global investors, profitability

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provides a comparable signal to evaluate Indonesia's Sharia-compliant financial sector as an investment destination and for cross-country benchmarking. [2]

This increase in industry scale necessitates stronger, measurable financial performance, as growth in assets and financing must be matched by banks' ability to generate sound and sustainable profits. Profitability is therefore a crucial indicator for assessing the financial performance of Islamic banks because it reflects the capacity to produce earnings from the assets under management. In banking studies, profitability is commonly proxied by Return on Assets (ROA) as a primary measure. Accordingly, ROA is relevant for capturing how effectively bank assets are utilized to generate profits, while also providing a signal to management regarding the efficiency of asset management amid continuous industry expansion.[3] The profitability trend of Islamic banks over the 2015–2024 period is presented in Figure 1.

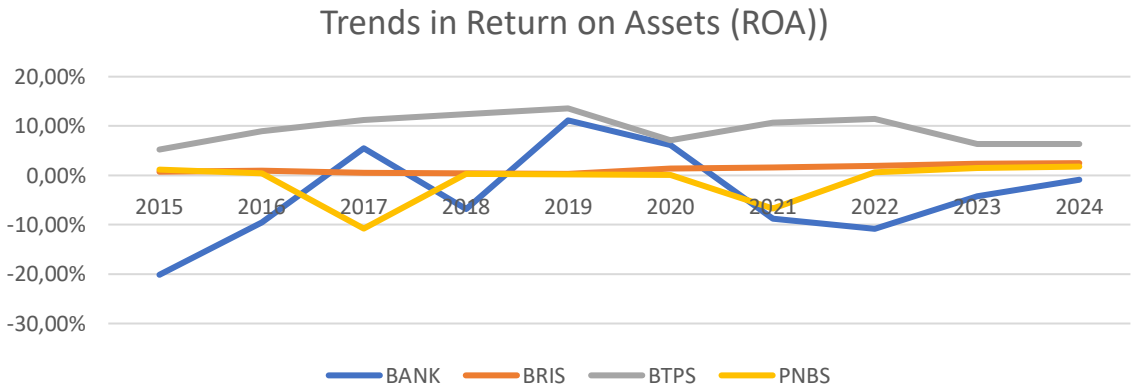

Figure 1. ROA Trend of Islamic Commercial Banks Listed on the Indonesia Stock Exchange (IDX), 2015–2024

Based on Figure 1, the four listed Islamic banks exhibit distinct profitability patterns. PT Bank Aladin Syariah Tbk (BANK) shows the sharpest fluctuations, with deeply negative ROA in 2015–2016 and again in 2021–2022, before moving toward values close to zero by 2024. PT Bank Syariah Indonesia Tbk (BRIS) displays a relatively stable upward trend, rising from approximately 0.77% in 2015 to 2.49% in 2024. PT Bank BTPN Syariah Tbk (BTPS) consistently records the highest ROA, peaking at 13.58% in 2019, although it experienced a decline after 2020. Meanwhile, PT Bank Panin Dubai Syariah Tbk (PNBS) maintains relatively low ROA and turns negative in 2017 and 2021, before gradually improving to 1.79% in 2024. These variations suggest significant differences in profitability performance across listed Islamic banks, which warrant further explanation through an analysis of their financial determinants. [4]

Among Islamic commercial banks operating in Indonesia, the four banks listed on the Indonesia Stock Exchange (IDX) hold a strategic position because they serve as key representations of Islamic banking performance in the capital market. As publicly listed companies, these banks are required to maintain sustainable profitability, strengthen corporate governance, and preserve investor confidence through sound financial performance. Concurrent pressures from regulators and investors also make ROA stability a critical issue, as it relates not only to business

continuity but also to market perceptions of the competitiveness of Indonesia's Islamic banking sector.[5]

Theoretically, the profitability of Islamic banks is influenced by several financial ratios that reflect capital adequacy, financing quality, and operational efficiency. The Capital Adequacy Ratio (CAR) indicates a bank's capacity to absorb potential losses through its capital base; when managed productively, a higher CAR is expected to support financing expansion and profit generation. Non-Performing Financing (NPF) represents the proportion of problematic financing; the higher the NPF, the greater the potential losses and provisioning requirements, which in turn depress profits. Meanwhile, the Operating Expenses to Operating Income ratio (BOPO) reflects operational efficiency; a higher BOPO signals greater costs incurred to generate income, thereby potentially reducing ROA. Prior studies on Islamic commercial banks in Indonesia generally find that CAR has a positive effect on ROA, whereas NPF and BOPO have negative effects, as heightened risk and cost inefficiency tend to reduce bank profitability.[4]

Nevertheless, empirical findings on the effects of CAR, NPF, and BOPO on profitability vary considerably across studies, indicating a clear research gap particularly for Islamic commercial banks listed on the Indonesia Stock Exchange (IDX). Many previous studies rely on mixed samples combining both listed and non-listed banks, or employ shorter observation windows that may not capture persistent bank-specific differences over time. [5] Listed Islamic banks operate under stricter public disclosure requirements and market discipline, which may shape their risk-taking behavior and operational efficiency differently from broader banking samples not subject to capital market scrutiny.[6] This inconsistency indicates a clear research gap for Islamic commercial banks listed on the IDX, where market discipline and public disclosure may shape risk-taking and efficiency differently from broader banking samples. Many previous studies rely on mixed samples or shorter observation windows, which may not capture persistent bank-specific differences and changes over time. Therefore, re-examining CAR, NPF, and BOPO using panel data for IDX-listed Islamic banks over 2015–2024 is urgent to provide updated, decision-relevant evidence for investors and regulators on profitability sustainability.

Several studies have produced results consistent with theoretical expectations. Yuliana and Listari (2021) found that CAR had a positive and significant effect on ROA, while BOPO had a negative and significant effect on ROA among Islamic commercial banks in Indonesia during 2014–2019, confirming that higher capital adequacy strengthens profitability and that operational inefficiency erodes it.[7] Similarly, Syakhrun, Anwar, and Amin (2019) reported that CAR positively and significantly influenced ROA, whereas NPF and BOPO exerted negative and significant effects on ROA, supporting the risk-return theory that higher financing risk and operational costs diminish bank profitability.[8] However, other studies have yielded contradictory results. Khasanah (2022) found that CAR had a negative and insignificant effect on ROA, while NPF showed a positive and insignificant relationship with ROA among five Islamic commercial banks during 2015–2020, contradicting the expected theoretical direction.[9] Astuti (2022) likewise reported that CAR, FDR, and NPF had no significant effect on profitability during

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2018–2021, with only BOPO demonstrating a significant influence on ROA.[10] Furthermore, Das et al. (2020) specifically examined Islamic banks listed on the IDX and found that CAR did not have a significant effect on ROA, while NPF and BOPO showed significant effects, suggesting that capital adequacy alone may not be a reliable predictor of profitability in the capital market context.[11] These inconsistencies across studies reinforce the need for a comprehensive re-examination using a longer observation period and a fixed effect panel data approach to account for individual bank heterogeneity.

In addition, many prior studies rely on samples covering all Islamic commercial banks or use aggregated industry-level data, and therefore do not specifically highlight Islamic banks listed on the IDX, which face distinctive governance structures, transparency requirements, and performance pressures compared with banks that are not publicly listed. In fact, a focused analysis of profitability determinants in listed Islamic banks is important to provide more targeted insights for bank management, regulators, and investors in evaluating performance and formulating strategies to enhance profitability.[12]

Based on the foregoing discussion, this study is designed to examine the determinants of profitability in Islamic banks listed on the Indonesia Stock Exchange (IDX), grounded in financial intermediation and bank performance theories that link capital strength, asset quality, and operating efficiency to earnings generation. From a risk-absorption and capital buffer perspective, adequate capital (CAR) is assumed to strengthen resilience and support profitable asset expansion, implying a positive relationship with ROA. From a credit-risk perspective, higher impaired financing (NPF) is expected to reduce income and increase provisioning costs, implying a negative relationship with ROA. From efficiency theory, BOPO represents operational efficiency, where higher operating costs relative to operating income indicate inefficiency that is expected to depress ROA. Based on these theoretical assumptions, the study focuses on the effects of CAR, NPF, and BOPO on ROA among the four listed Islamic banks over the 2015–2024 period, and is expected to deliver bank-specific evidence, enrich the empirical literature on profitability determinants in Indonesia's Islamic banking sector, and provide practical insights for stakeholders in formulating strategies to strengthen competitiveness in the national financial market.

METHOD

This study employs a descriptive quantitative approach using data analysis. The data used are secondary data obtained from several Islamic commercial banks in Indonesia listed on the Indonesia Stock Exchange (IDX) for the 2015–2024 period. The study population comprises all Islamic commercial banks operating in Indonesia, while the sample consists of four listed Islamic banks that provide complete annual financial statements throughout 2015–2024. The sample is selected using a non-probability sampling technique, specifically judgement/purposive sampling, namely the determination of samples based on certain considerations aligned with the research objectives.[13]

This study uses three independent variables and one dependent variable. The following section presents the operational definitions of the variables used in

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this study. Based on this sampling process, the Islamic commercial banks included as the research sample are as follows:

Table 1. List of Research Samples

No	Nama Bank	Kode
1.	PT Bank Aladin Syariah Tbk	BANK
2.	PT Bank Syariah Indonesia Tbk	BTPS
3.	PT Bank Syariah Indonesia Tbk	BRIS
4.	PT Bank Panin Dubai Syariah Tbk	PNBS

The data collection technique employed in this study is non-participant observation, in which the researcher is not directly involved in the firms' operational activities but only observes and compiles published data. This technique is appropriate for studies relying on secondary data from publicly available financial reports, as it ensures objectivity and eliminates potential researcher bias in data recording.[13] The data consist of the sampled banks' annual financial statements obtained from corporate annual reports, the IDX annual reports, and official OJK publications. The dataset is then processed and organized into panel data (4 banks × 10 years), resulting in 40 observations. Panel data is selected because it combines cross-sectional and time-series dimensions, allowing researchers to control for individual heterogeneity that purely cross-sectional or time-series data cannot address, and thereby producing more efficient and less biased estimators.[14]

After the data collection process, the data are analyzed using several techniques. Descriptive analysis is employed to depict the trends in profitability (ROA), CAR, NPF, and BOPO for the sampled banks over the study period. Subsequently, panel data regression analysis is applied to examine the effects of CAR, NPF, and BOPO on profitability. Panel data regression is chosen over ordinary least squares (OLS) cross-sectional regression because it accounts for unobservable firm-specific effects that may influence profitability, such as managerial quality and corporate governance practices, which differ across banks but remain relatively stable over time.[15]

Prior to regression estimation, the appropriate panel model specification (common effect, fixed effect, or random effect) is selected using the Chow test, the Lagrange Multiplier (LM) test, and the Hausman test. The Chow test determines whether the fixed effect model is preferable to the common effect model by testing for the presence of individual-specific intercepts; the LM test evaluates whether the random effect model outperforms the common effect model; and the Hausman test compares the fixed and random effect models to assess whether the individual effects are correlated with the regressors.[16] The chosen panel model is then applied in the regression analysis to test the hypotheses by examining the results of the t-test, F-test, and the coefficient of determination (R^2), in order to identify partial and simultaneous effects as well as the explanatory power of the independent variables in accounting for profitability among the sampled Islamic banks.[17]

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RESULTS AND DISCUSSION

Model Specification Tests

Model specification tests are conducted to determine the most appropriate panel data model so that the resulting estimates can represent the relationships among variables more accurately.[18]

Table 2. Chow Test Output Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	16.531697	(3,33)	0.0000
Cross-section Chi-square	36.697707	3	0.0000

Based on the Chow test (Redundant Fixed Effects Test), the probability values for both the Cross-section F and Cross-section Chi-square statistics are 0.0000, which are below the 0.05 significance level. This leads to the rejection of the null hypothesis and indicates that the fixed effects model is more appropriate than the common effects model.

Table 3. Hausman Test Output Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	49.595090	3	0.0000

The Hausman test results indicate a probability value of 0.0000, which is below the 0.05 threshold. Accordingly, the null hypothesis is rejected, suggesting that the fixed effects model is more appropriate than the random effects model. Based on both the Chow test and the Hausman test, which each yield probability values below 0.05, this study adopts the fixed effects model as the selected specification because it is considered the most appropriate and provides consistent estimates. The Lagrange Multiplier (LM) test is not pursued further, as it is primarily used to choose between the common effects and random effects models, whereas the results of the two prior tests already clearly indicate the fixed effects model as the preferred choice.

Panel Data Linear Regression Equation

The following presents the panel data regression results using the Fixed Effects Model:

Table 4. Fixed Effects Model Output Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075406	0.009333	8.079759	0.0000
X1	0.052440	0.009038	5.801951	0.0000
X2	-0.755837	0.311657	-2.425226	0.0209
X3	-0.072757	0.007206	-10.09696	0.0000
	Effects Specification		S.D.	Rho
Cross-section random			1.450155	0.0741
Idiosyncratic random			5.124260	0.9259

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Weighted Statistics			
R-squared	0.850034	Mean dependent var	2.422136
Adjusted R-squared	0.889006	S.D. dependent var	5.362258
S.E. of regression	5.283917	Sum squared resid	1898.545
F-statistic	1.706984	Durbin-Watson stat	2.157219
Prob(F-statistic)	0.000000		

Based on the regression output presented in the table above, the regression model equation is specified with Return on Assets (Y) as the dependent variable, and the Capital Adequacy Ratio (X1), Non-Performing Financing (X2), and the Operating Expenses to Operating Income ratio (X3) as the independent variables, as follows:

$$Y_{it} = 0.075406 + 0.052440\text{X1}_{it} - 0.755837\text{X2}_{it} - 0.072757\text{X3}_{it} + \in_{it}$$

The constant term (C) of 0.075406 represents the baseline level of Return on Assets when the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio are equal to zero. The Capital Adequacy Ratio has a positive coefficient of 0.052440, indicating that an increase in the Capital Adequacy Ratio is associated with a higher Return on Assets. In contrast, Non-Performing Financing has a negative coefficient of −0.755837 and the Operating Expenses to Operating Income ratio has a negative coefficient of −0.072757, suggesting that increases in either Non-Performing Financing or the Operating Expenses to Operating Income ratio tend to reduce Return on Assets.

These results indicate that the Capital Adequacy Ratio has a positive effect on Return on Assets, whereas Non-Performing Financing and the Operating Expenses to Operating Income ratio have negative effects. This suggests that stronger capital adequacy supports banks' profit performance, while financing risk and operational inefficiency tend to reduce profitability.

Partial t-test

Table 5. Partial t-test Results

Variabel	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075406	0.009333	8.079759	0.0000
X1	0.052440	0.009038	5.801951	0.0000
X2	-0.755837	0.311657	-2.425226	0.0209
X3	-0.072757	0.007206	-10.09696	0.0000

Based on the regression output, a t-test is conducted to assess the significance of each regression coefficient of the independent variables on Islamic banking profitability, proxied by Return on Assets (ROA). The null hypothesis (H0) states that the coefficient of an independent variable has no significant effect on profitability, whereas the alternative hypothesis (H1) states that the coefficient of an independent variable has a significant effect on profitability.

For the Capital Adequacy Ratio (X1), the estimated coefficient is 0.052440, with a t-statistic of 5.801951 and a p-value of 0.0000. Since the p-value is below 0.05,

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the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. This indicates that the Capital Adequacy Ratio has a statistically significant effect on profitability, and the positive coefficient suggests that an increase in the Capital Adequacy Ratio tends to raise Return on Assets. For Non-Performing Financing (X2), the estimated coefficient is −0.755837, with a t-statistic of −2.425226 and a p-value of 0.0209. Because the p-value is below 0.05, the null hypothesis (H0) is rejected. Accordingly, Non-Performing Financing has a statistically significant effect on profitability, and the negative sign indicates that an increase in Non-Performing Financing tends to reduce Return on Assets.

Meanwhile, the Operating Expenses to Operating Income ratio (X3) has a coefficient of −0.072757, with a t-statistic of −10.09696 and a p-value of 0.0000. Since the p-value is well below 0.05, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. This means that the Operating Expenses to Operating Income ratio has a statistically significant effect on profitability, and the negative coefficient indicates that a higher ratio (lower operational efficiency) is associated with a lower Return on Assets.

Accordingly, based on the t-test results, all three independent variables, namely the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio, are proven to have statistically significant effects on the profitability of the sampled Islamic banks, with a positive effect for the Capital Adequacy Ratio and negative effects for Non-Performing Financing and the Operating Expenses to Operating Income ratio.

Simultaneous F-test

Table 6. Simultaneous F-test Results

R-squared	0.850034	Mean dependent var	2.422136
Adjusted R-squared	0.889006	S.D. dependent var	5.362258
S.E. of regression	5.283917	Sum squared resid	1898.545
F-statistic	1.706984	Durbin-Watson stat	2.157219
Prob(F-statistic)	0.000000		

The simultaneous F-test is used to examine whether all independent variables included in the regression model, namely the Capital Adequacy Ratio (X1), Non-Performing Financing (X2), and the Operating Expenses to Operating Income ratio (X3), jointly affect Islamic banking profitability, proxied by Return on Assets (ROA). This test determines whether the combination of these three variables has a statistically significant simultaneous effect on the dependent variable, indicating that the regression model is appropriate for explaining variations in ROA.

Based on the regression output, the F-statistic is 49.86645 with Prob(F-statistic) = 0.000000. Since this probability value is far below the 0.05 significance level, the null hypothesis stating that the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio do not jointly affect profitability is rejected. Therefore, the alternative hypothesis is accepted, indicating that these three independent variables simultaneously have a statistically significant effect on Return on Assets.

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This F-test result indicates that the combination of the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio provides strong explanatory power for variations in the profitability of Islamic banks. Therefore, these variables should be considered simultaneously in the regression model when analyzing the profit performance of listed Islamic banks.

Coefficient of Determination

The following presents the results of the coefficient of determination analysis.

Table 7. Coefficient of Determination Results

R-squared	0.850034
Adjusted R-squared	0.889006

The coefficient of determination (R-squared) is used to measure the extent to which variations in the dependent variable, namely Islamic banking profitability proxied by Return on Assets (ROA), can be explained by the independent variables included in the regression model, namely the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio. The R-squared value ranges from 0 to 1. A value closer to 1 indicates that a larger proportion of the variation in ROA is explained by the model, suggesting stronger explanatory power.

Based on the regression output, the R-squared value is 0.900662 and the Adjusted R-squared is 0.882600. These results indicate that approximately 90.07% of the variation in Islamic banking profitability, proxied by Return on Assets, is explained by changes in the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio included in the model, while the remaining 9.93% is attributable to other factors outside the model. The Adjusted R-squared value of 0.882600 suggests that after accounting for the number of independent variables, approximately 88.26% of the variation in Return on Assets is still explained by the estimated regression model.

The high R-squared and Adjusted R-squared values indicate that the regression model has a very strong ability to explain variations in the profitability of listed Islamic banks. Accordingly, the combination of the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio is statistically capable of capturing Return on Assets performance in a sufficiently comprehensive manner. Therefore, this model can serve as a robust basis for further analysis of the factors influencing the profitability of Islamic banks listed on the Indonesia Stock Exchange.

Effect of the Capital Adequacy Ratio on Return on Assets in Islamic Banks Listed on the Indonesia Stock Exchange

Based on the t-test results, the Capital Adequacy Ratio has a positive and statistically significant effect on Return on Assets. The estimated coefficient for the Capital Adequacy Ratio is 0.052440 with a p-value of 0.0000, which is below 0.05, indicating that an increase in the Capital Adequacy Ratio tends to be followed by

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an increase in profitability. This implies that the stronger the capital position of listed Islamic banks, the greater their capacity to generate earnings from the assets they manage. Therefore, capital adequacy constitutes an important factor in improving Return on Assets.

The positive relationship can be theoretically explained by the role of capital as a risk buffer. Banks with a higher Capital Adequacy Ratio have a greater capacity to absorb potential financing losses, expand productive financing, and comply with regulatory requirements without undermining the stability of profit performance. A strong capital position also enhances the confidence of customers and investors, which can support the growth of third-party funds and create greater opportunities for listed Islamic banks to generate higher income.

This study's findings are consistent with several prior studies reporting that the Capital Adequacy Ratio has a positive and statistically significant effect on Return on Assets in Islamic commercial banks in Indonesia. Yuliana (2021) found that the Capital Adequacy Ratio, on a partial basis, significantly and positively affected Return on Assets in a sample of Islamic commercial banks,[19] while the Operating Expenses to Operating Income ratio had a significant negative effect. Similar evidence is reported by Mubarok (2023), who concludes that increases in the Capital Adequacy Ratio tend to be followed by higher profitability in Islamic banks.[20] However, other studies have found no significant effect of the Capital Adequacy Ratio on Return on Assets, such as Azizah (2021), suggesting that the relationship between capital adequacy and profitability may depend on differences in observation periods, bank samples, and prevailing macroeconomic conditions across studies. In this research, the results, which align with much of the existing evidence, reinforce the argument that strengthening capital remains an important strategy for improving the profitability performance of Islamic banks listed on the Indonesia Stock Exchange.[21]

Effect of Non-Performing Financing on Return on Assets in Islamic Banks Listed on the Indonesia Stock Exchange

Based on the t-test results, Non-Performing Financing has a negative and statistically significant effect on Return on Assets. The estimated coefficient for Non-Performing Financing is −0.755837 with a p-value of 0.0209, which is below 0.05, indicating that an increase in Non-Performing Financing tends to reduce the profitability of listed Islamic banks. This implies that a higher share of problem financing increases the risk burden borne by banks, thereby lowering the earnings generated from the assets under management. This finding is consistent with the view that rising Non-Performing Financing reduces bank income because a portion of financing fails to generate the expected cash flows.[22]

Theoretically, Non-Performing Financing reflects the quality of financing assets and the extent to which banks successfully manage financing risk. When a financing portfolio is dominated by customers in arrears or in default, banks are required to establish impairment loss provisions, which reduce income. In addition, problem financing weakens productive fund rotation because funds that should be recycled into new financing are instead tied up in non-performing assets that do not generate returns. This mechanism explains why increases in Non-Performing

Financing are negatively associated with Return on Assets, since a higher ratio of problem financing simultaneously raises provisioning costs and reduces a bank's ability to generate earnings from its assets.

This study's findings are consistent with various empirical studies indicating that Non-Performing Financing has a negative and statistically significant effect on Return on Assets in Islamic commercial banks in Indonesia. Nisa (2022) likewise reports that higher Non-Performing Financing reduces Islamic bank profitability due to declining financing income and increasing loss-provision expenses.[23] However, other studies find that Non-Performing Financing does not always have a statistically significant effect on Return on Assets, such as Firdausi (2024), suggesting differences in sample characteristics, observation periods, and risk management strategies across banks. In this study, the significant negative result reinforces the importance of controlling Non-Performing Financing as a key factor in maintaining profitability stability among Islamic banks listed on the Indonesia Stock Exchange.[24]

Effect of Operating Expenses to Operating Income Ratio on Return on Assets in Islamic Banks Listed on the Indonesia Stock Exchange

Based on the t-test results, the Operating Expenses to Operating Income ratio has a negative and statistically significant effect on Return on Assets. This is indicated by the estimated coefficient of −0.072757 with a p-value of 0.0000, which is below 0.05. This implies that a one-unit increase in the Operating Expenses to Operating Income ratio reduces Return on Assets by 0.072757. From a practical perspective, the greater the proportion of operating expenses relative to operating income, the smaller the profit that can be generated from the assets under management. Therefore, a high ratio signals declining profitability among listed Islamic banks.

Theoretically, the Operating Expenses to Operating Income ratio is widely used as an efficiency indicator that measures how effectively a bank manages costs in generating income. A higher ratio indicates that operating expenses are relatively large compared with the income earned, thereby narrowing profit margins. In contrast, a decline in the ratio reflects improved efficiency, as the bank is able to reduce costs while maintaining or increasing operating income. Consequently, the more efficient a bank is in managing operating expenses, the greater its potential to improve Return on Assets.[25]

This study's findings are consistent with prior research indicating that the Operating Expenses to Operating Income ratio has a negative and statistically significant effect on the profitability of Islamic banks. Yuliana and Listari (2021) report that the Operating Expenses to Operating Income ratio significantly and negatively affects Return on Assets in Indonesian Islamic banks, making this ratio an important indicator for assessing profit performance.[19] Similar evidence is provided by Millania (2021), who concludes that increases in the Operating Expenses to Operating Income ratio reduce Return on Assets because higher operating costs erode bank profits.[26] Kusumaningrum (2024) also confirms a significant negative effect of the Operating Expenses to Operating Income ratio on Return on Assets in Islamic commercial banks, indicating that operating cost

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efficiency is a key determinant of profitability. Therefore, the results of this study strengthen the empirical evidence that controlling the Operating Expenses to Operating Income ratio through improved operational efficiency is an important strategy for sustaining and enhancing the profitability of Islamic banks listed on the Indonesia Stock Exchange.[27]

Effect of Capital Adequacy Ratio, Non-Performing Financing, and Operating Expenses to Operating Income Ratio on Return on Assets in Islamic Banks Listed on the Indonesia Stock Exchange

Based on the simultaneous F-test results, the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio jointly have a statistically significant effect on Return on Assets. The F-statistic is 49.86645 with Prob(F-statistic) = 0.000000, which is below 0.05, indicating that these three independent variables, when considered simultaneously, explain variations in the profitability of listed Islamic banks very well. This is consistent with R-squared = 0.900662 and Adjusted R-squared = 0.882600, suggesting that approximately 90.07% of the variation in Return on Assets is explained by the combined effects of the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio in the model, while the remaining variation is attributable to other factors outside the study variables.

Theoretically, these results indicate that the profitability of Islamic banks is shaped by the combined effects of capital strength, financing quality, and operational efficiency. A higher Capital Adequacy Ratio provides banks with greater capacity to absorb risk and expand financing more aggressively, but these benefits are reduced when accompanied by higher Non-Performing Financing, which signals deteriorating financing quality. At the same time, a higher Operating Expenses to Operating Income ratio reflects cost inefficiency that directly erodes profits. Therefore, although strong capital is important for supporting the expansion of productive assets, profitability can be sustained only when financing quality remains sound, reflected in lower Non-Performing Financing, and operating costs are managed efficiently, reflected in a lower Operating Expenses to Operating Income ratio. The interplay among these three ratios helps explain why a model that includes them simultaneously can provide a comprehensive depiction of movements in Return on Assets among listed Islamic banks.

This simultaneous finding is consistent with empirical studies examining the effects of the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio on Return on Assets in Islamic commercial banks in Indonesia. Maulla (2022) reports that the Capital Adequacy Ratio, Non-Performing Financing, the Financing to Deposit Ratio, and the Operating Expenses to Operating Income ratio jointly have a statistically significant effect on Return on Assets for Islamic commercial banks over the 2016–2020 period, with a substantial proportion of profitability variation explained by the combined set of these ratios. [28]

CONCLUSION

The results of this study indicate that the Capital Adequacy Ratio has a positive and statistically significant effect on Return on Assets, with a coefficient of 0.052440 and a probability value of 0.0000. In contrast, Non-Performing Financing has a negative and statistically significant effect on Return on Assets, with a coefficient of −0.755837 and a probability value of 0.0209. The Operating Expenses to Operating Income ratio also has a negative and statistically significant effect on Return on Assets, with a coefficient of −0.072757 and a probability value of 0.0000. Based on the F-test, the Capital Adequacy Ratio, Non-Performing Financing, and the Operating Expenses to Operating Income ratio simultaneously have a statistically significant effect on Return on Assets, as indicated by Prob(F-statistic) = 0.000000. The explanatory power of the model is very strong, reflected in an R-squared of 0.900662 and an Adjusted R-squared of 0.882600. This implies that the independent variables in this study explain approximately 88.26% of the variation in Return on Assets, while the remaining 11.74% is influenced by other factors outside the model, such as the Financing to Deposit Ratio, Third-Party Funds, bank size, non-operating income efficiency, and macroeconomic variables including inflation, exchange rates, and economic growth.

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