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THE EFFECT OF CREDIT RISK AND OPERATIONAL EFFICIENCY ON THE PROFITABILITY OF ISLAMIC BANKS: A COMPARATIVE STUDY OF INDONESIA AND MALAYSIA 2017–2024

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ABSTRACT

This study examines the effect of credit risk, measured by Non-Performing Financing (NPF), and operational efficiency, measured by the Operating Expenses to Operating Income ratio (BOPO), on the profitability of Islamic banks as represented by Return on Assets (ROA). The sample consists of four Islamic banks (Bank Muamalat Indonesia, Bank Mega Syariah, Maybank Islamic Berhad, and CIMB Islamic Berhad) using quarterly data from 2017 to 2024, covering the pre-pandemic, pandemic, and post-pandemic recovery phases. Employing panel data regression and a series of classical diagnostic tests, the findings reveal that NPF and BOPO simultaneously have a significant impact on ROA, with a coefficient of determination of 72.56%. Partially, NPF does not exhibit a statistically significant effect, while BOPO demonstrates a significant negative influence. The country-level analysis highlights differences: in Indonesia, profitability is more sensitive to credit risk, with NPF exerting a stronger negative effect on ROA, whereas in Malaysia, operational efficiency (BOPO) emerges as the dominant factor influencing profitability. The independent sample mean-difference test further confirms significant disparities in NPF, BOPO, and ROA between Islamic banks in Indonesia and Malaysia. Overall, these findings emphasize that BOPO remains the most dominant variable, suggesting that enhancing cost efficiency and operational management is crucial for strengthening the profitability of Islamic banks in the ASEAN region.

Keywords: : Credit Risk, Operational Efficiency, Profitability, Islamic Bank.

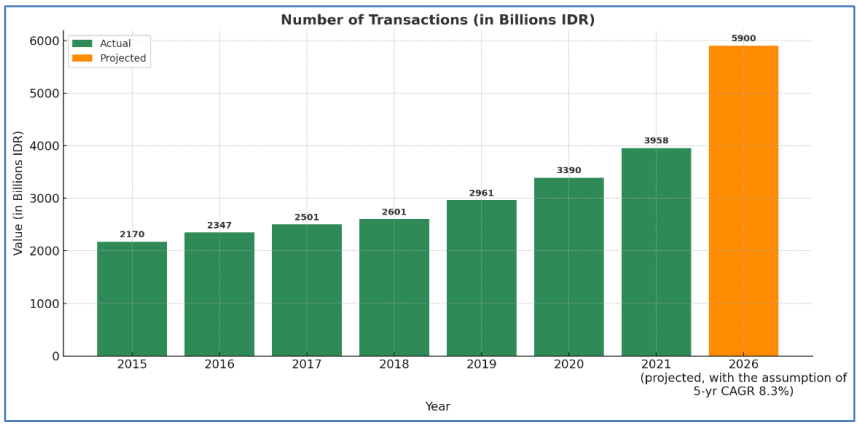
ABSTRAK

Penelitian ini mengkaji pengaruh risiko kredit (diukur melalui Non-Performing Financing/NPF) dan efisiensi operasional (diukur melalui rasio Biaya Operasional terhadap Pendapatan Operasional/BOPO) terhadap profitabilitas bank syariah yang direpresentasikan dengan Return on Assets (ROA). Sampel penelitian mencakup empat bank syariah, yaitu Bank Muamalat Indonesia, Bank Mega Syariah, Maybank Islamic Berhad, dan CIMB Islamic Berhad dengan data triwulanan periode 2017 hingga 2024 yang mencakup fase pra-pandemi, pandemi, dan pemulihan pasca-pandemi. Penelitian ini menggunakan regresi data panel serta serangkaian uji diagnostik klasik, hasil penelitian menunjukkan bahwa NPF dan BOPO secara simultan berpengaruh signifikan terhadap ROA dengan koefisien determinasi sebesar 72.56%. Secara parsial, NPF tidak berpengaruh signifikan, sementara BOPO terbukti berpengaruh negatif signifikan. Analisis per negara menunjukkan adanya perbedaan: di Indonesia, profitabilitas lebih sensitif terhadap risiko kredit dengan NPF berpengaruh negatif lebih kuat terhadap ROA, sedangkan di Malaysia, efisiensi operasional (BOPO) merupakan faktor dominan yang memengaruhi profitabilitas. Uji beda rata-rata sampel independen juga menegaskan adanya perbedaan signifikan pada NPF, BOPO, dan ROA antara bank syariah di Indonesia dan Malaysia. Temuan ini menegaskan bahwa BOPO merupakan variabel yang paling dominan, sehingga peningkatan efisiensi biaya dan manajemen operasional menjadi kunci dalam memperkuat profitabilitas bank syariah di kawasan ASEAN..

Kata Kunci: Risiko Kredit, Efisiensi Operasional, Profitabilitas, Bank Syariah.

INTRODUCTION

The global Islamic finance industry experienced an 11% growth in assets, reaching US$4.5 trillion in 2022[1]. Of this amount, the Islamic banking sector accounted for approximately 72% of total assets, underscoring its role as the backbone of the global Islamic finance ecosystem. In the ASEAN region, Malaysia and Indonesia made significant contributions, with Malaysia leading through a regional asset share of around 80%, while Indonesia reported assets of USD 148 billion in 2022, rising to USD 163 billion in 2023. The Islamic Financial Services Board (IFSB) reported that Islamic banking assets reached USD 3.88 trillion in 2024, an increase of 14.9% year-on-year, marking the fastest pace since the pandemic. This growth was driven by several factors, including global economic normalization, the expansion of MSME retail financing, and the digitalization of Islamic financial services.



Source: Islamic Finance Development Report 2022

Figure 1. Global Growth of Islamic Financial Assets (in billion USD)

Amid the recovery of the global economy, the Islamic finance sector is projected to continue its expansion, reaching US$5.90 trillion by 2026. Financial performance serves as a crucial indicator reflecting a bank's stability, efficiency, and competitiveness. In this context, Return on Assets (ROA) is a key ratio in assessing bank profitability, as it reflects the ability to generate earnings from owned assets. A high ROA indicates efficient asset management, whereas a low ROA suggests inefficiency or pressure on income. Therefore, ROA is an essential indicator in evaluating performance, competitiveness, and the added value a bank provides to its shareholders.

Two key risk factors are credit risk (NPF) and operational efficiency (BOPO). During the pandemic in 2020, the average NPF was at a relatively high level before eventually declining to 2.7% in 2023, whereas in Malaysia the NPF remained around 2–3% during 2018–2022. Data from ICD-LSEG indicate that

[1] "Navigating Uncertainty: Global Islamic finance assets expected to exceed 6.7 trillion by 2027," 26 Februari 2024, https://www.lseg.com/en/insights/data-analytics/navigating-uncertainty-global-islamic-finance-assets-expected-to-exceed-67-trillion-by-2027.

both NPF and BOPO rose during the 2020 pandemic and then began to decline during the recovery phase of 2021–2024. The period from 2017 to 2024 can be divided into three critical phases that shaped the Islamic banking industry. In Indonesia, the pre-pandemic phase (2017–2019) showed relatively stable performance, marked by improvements in financing quality, as evidenced by a decrease in the gross NPF ratio from 4.76% in 2017 to 3.26% in 2018, although operational efficiency remained a challenge, with the BOPO ratio reaching 89.18% in 2018.[2]

During the pandemic phase (2020–2022), the global economic impact of COVID-19 led to increased financing risk, with NPF rising and BOPO remaining elevated, despite regulatory relaxation measures introduced by the Financial Services Authority.[3] That helped maintain sectoral stability. In the subsequent post-pandemic recovery phase (2023–2024), positive trends emerged, with financing quality improving as the gross NPF declined to 2.12% in 2024 and operational efficiency also improved in line with a reduction in BOPO across the industry, underscoring the strengthened fundamentals of the national Islamic banking sector.[4] This is consistent with Isnurhadi et. al.,[5] who examined the growth of the banking industry in ASEAN countries, including Malaysia, and found that operational risk in Malaysia is relatively low compared to other ASEAN countries. The study also indicated that Malaysia demonstrates a high level of efficiency, as reflected in cost-to-total assets and cost-to-operating income ratios, signifying strong operational efficiency. Furthermore, financial risk in Malaysia remains relatively well-managed, with liquidity risk kept low in terms of non-performing financing compared to its ASEAN peers. In terms of growth, Malaysia has shown consistent internal expansion and lower risk, thereby sustaining long-term development. The country also demonstrates lower exposure to both operational and financial risks, along with greater efficiency in managing costs and assets, thereby supporting the stability and sustainability of Malaysia's banking sector.

Overall, Malaysia has maintained relative stability in risk and efficiency, supporting sustainable growth in the banking sector. Across ASEAN, Islamic banks have managed to keep NPF at a moderate level, although efficiency levels differ across countries. Data from Global Finance Magazine indicate that the

[2] "Statistik Perbankan Syariah," Accessed 24 September 2025, https://www.ojk.go.id/id/kanal/syariah/data-dan-statistik/statistik-perbankan-syariah/Default.aspx.

[3] "Statistik Perbankan Syariah - Desember 2020," t.t., Accessed 24 September 2025, https://ojk.go.id/id/kanal/syariah/data-dan-statistik/statistik-perbankan-syariah/Pages/Statistik-Perbankan-Syariah---Desember-2020.aspx?

[4] "Siaran Pers: Kinerja Positif Perbankan Syariah 2024," Accessed 19 September 2025, https://www.ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Kinerja-Positif-Perbankan-Syariah-2024.aspx?

[5] Isnurhadi dkk., "Banking Industry Sustainable Growth Rate under Risk: Empirical Study of the Banking Industry in ASEAN Countries," *Sustainability* 15, no. 1 (2022): 564, https://doi.org/10.3390/su15010564.

profitability of global Islamic banks improved, with ROA rising from 1.6% in 2022 to 1.8% in 2023. This underscores the importance of analyzing credit risk and operational efficiency as key determinants of Islamic bank profitability in Indonesia and Malaysia.[6]

The four full-fledged Islamic banks (Bank Muamalat Indonesia, Bank Mega Syariah, Maybank Islamic Berhad, and CIMB Islamic Berhad) occupy strategic positions in advancing Islamic financial inclusion and the growth of the banking industry in Southeast Asia. The choice of these banks as the focus of this study is based on their status as competitive private national institutions that also represent two different regulatory systems: Indonesia, with internal Sharia Supervisory Boards (DPS), and Malaysia, with a centralized Shariah Advisory Council (SAC). This distinction generates differences in policy and managerial practices that are valuable for comparative analysis. Therefore, this study is relevant for examining the impact of credit risk (NPF) and operational efficiency (BOPO) on profitability (ROA), and for assessing how institutional differences between Indonesia and Malaysia affect the ability of Islamic banks to maintain stability and performance.

Several previous studies provided relevant insights. Lufianda and Syafri[7] found that, partially, the Capital Adequacy Ratio (CAR), Financing to Deposit Ratio (FDR), and Operating Expenses to Operating Income Ratio (BOPO) had a significant negative effect on Return on Assets (ROA), while Non-Performing Financing (NPF) did not significantly affect ROA. Similarly, Nurhayati et., al.,[8] observed that BOPO and inflation exerted a negative influence on ROA, indicating that higher operating costs and inflationary pressures can reduce profitability. However, NPF was again found to have no significant effect on ROA, as non-performing financing does not consistently translate into an immediate reduction in profitability. Sentika et., al.,[9] found significant relationships between all independent variables and the dependent variable, with two variables, FDR and NOM, having significant positive effects, while the other two variables, BOPO and NPF, showed significant negative effects. Tyas[10] likewise reported that NPF, CAR, and BOPO ratios demonstrated significant negative influences on ROA, thereby indicating a relatively consistent pattern in which operational efficiency, as measured by the BOPO

[6] "Lembaga Keuangan Islam Terbaik 2024 | Majalah Keuangan Global," Accessed 23 September 2025, https://gfmag.com/banking/worlds-best-islamic-financial-institutions-2024/.

[7] Putri Lufianda Supardi dan Syafri, "Pengaruh Car, Npf, Fdr Dan Bopo Terhadap Profitabilitas (Roa) Pada Bank Umum Syariah (Studi Kasus: Bank Syariah Yang Terdaftar Di Ojk 2018-2022)," *Jurnal Ekonomi Trisakti* 3, no. 2 (2023): 3243–54, https://doi.org/10.25105/jet.v3i2.17944.

[8] Dede Nurhayati dkk., "PENGARUH BOPO, NON PERFOMING FINANCING, INFLASI TERHADAP RETURN ON ASSET PADA PERBANKAN SYARIAH DI INDONESIA," preprint, 2024, 46–55.

[9] Dina Sentika dkk., "Analysis of the Impact of BOPO, FDR, NOM and NPF on ROA of Indonesian Sharia Commercial Banks Registered with the OJK," *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam* 5, no. 4 (2024): 3230–49, https://doi.org/10.47467/elmal.v5i4.1915.

[10] Irlandia Ayuning Tyas, "Pengaruh NPF, CAR dan BOPO Terhadap ROA pada Bank Victoria Syariah Periode 2015-2022," *EKOMA : Jurnal Ekonomi* 4, no. 1 (2024): 3125–39.

ratio, and financing quality, as reflected in NPF, tend to negatively affect the profitability of Islamic banks (ROA). These findings are relevant to the present study comparing Bank Muamalat Indonesia and Maybank Islamic Berhad, as they provide a foundation suggesting that differences in operational efficiency and financing quality across the two countries may lead to significant variations in profitability.

Cross-country studies on Islamic banking have been widely conducted, covering aspects of regulation, efficiency, and financial performance. Nevertheless, research that specifically focuses on differences in the performance of Islamic banks across the pre-pandemic, pandemic, and post-pandemic recovery phases remains limited. Yet the pandemic had a significant impact on financial stability, financing quality, and banks' operational efficiency. Therefore, this study is crucial for enhancing the understanding of how Islamic banks perform under global crisis conditions. A key limitation of prior research is that the performance of Islamic banking across the pre-pandemic, pandemic, and post-pandemic recovery phases remains underexplored, which motivates this study to fill the gap. Analyses confined to a single phase risk overlooking evolving patterns over time. By examining all three phases—pre-pandemic, pandemic, and post-pandemic recovery—this study provides deeper insights into the relationship between credit risk and operational efficiency in shaping the profitability of Islamic banks. It also enriches the literature, which has often focused on cross-country comparisons or comparisons between conventional and Islamic banks, without considering the pandemic as an important contextual variable.

Amid global post-pandemic economic headwinds, this study holds strong relevance for understanding how Islamic banks maintain profitability under the pressure of credit risk and operational efficiency challenges. By analyzing the three phases—pre-pandemic, pandemic, and post-pandemic recovery—this research becomes more contextual, as it captures the dynamics of banks' adaptation to crisis conditions. Therefore, this study is eligible as an academic contribution that enriches the literature on the performance dynamics of Islamic banks across countries while considering the global crisis context.

Drawing from the preceding discussion, this study aims to analyze the effect of credit risk (measured by Non-Performing Financing/NPF) and operational efficiency (measured by the BOPO ratio) on profitability (ROA) in Islamic banks in Indonesia and Malaysia during the 2017–2024 period. In addition, the study examines cross-country differences in these effects and identifies the dominant factor that most strongly influences the profitability of Islamic banks. Thus, this research is expected to enrich the academic literature on cross-country comparative studies, while also providing practical insights for regulators and the industry in formulating policies to enhance the efficiency and competitiveness of Islamic banking in the ASEAN region.

METHOD

This study employs a quantitative comparative research design to assess the relationships among key financial variables and to compare the performance of Islamic banks in Indonesia and Malaysia. A quantitative approach is particularly relevant as the data consist of objective financial figures, while the comparative perspective allows the identification of cross-country differences between Malaysia, a mature market with a dominant asset share, and Indonesia, a rapidly expanding market. These contrasts provide an empirical foundation for analyzing how credit risk and operational efficiency affect bank profitability, thereby offering valuable insights for academic research and policy formulation.

The study employs quarterly financial statements from the 2017–2024 period, generating 32 observations per bank and a total of 128 observations. This period was deliberately selected as it encompasses three crucial phases—pre-pandemic, pandemic, and post-pandemic recovery—thereby enabling a comprehensive assessment of Islamic banks' performance under varying economic conditions. The research sample was determined using purposive sampling with three key criteria: (1) the banks must be full-fledged Islamic banks, (2) they must provide complete financial statements for the entire study period, and (3) they are subject to different supervisory authorities, namely the Financial Services Authority (OJK) in Indonesia and Bank Negara Malaysia (BNM) in Malaysia. The study employs three financial ratios as research variables, namely Non-Performing Financing (NPF), calculated as (non-performing financing ÷ total financing) × 100%; Operating Expenses to Operating Income (BOPO), calculated as (operating expenses ÷ operating income) × 100%; and Return on Assets (ROA), calculated as (net income ÷ total assets) × 100%. Data were analyzed using EViews 12 through several stages, beginning with descriptive analysis, followed by model selection tests (Chow, Hausman, and Lagrange Multiplier) to determine the most appropriate panel regression model (CEM, FEM, or REM), panel regression to examine the effect of NPF and BOPO on ROA, hypothesis testing using both simultaneous (F-test) and partial (t-test) methods, and independent sample mean-difference tests (t-test and ANOVA) to compare the performance of Islamic banks in Indonesia and Malaysia.

RESULTS AND DISCUSSION

Following Ghozali[11], descriptive statistics were employed to summarize the data distribution using measures of central tendency (mean, median) and dispersion (standard deviation, minimum, and maximum). This

[11] Imam Ghozali, *Ghozali Imam, Aplikasi Analisis Multivariate Dengan Program IBM SPSS*, 9 ed., 9 (UNDIP, 2011).

preliminary analysis provides an overview of the variables prior to inferential testing. Table 1 reports the descriptive statistics for Bank Muamalat Indonesia.

Table 1. Descriptive Statistics of Bank Muamalat Indonesia

Variable	Mean	Median	Minimum	Maximum	Std. Deviation
ROA	0.086875	0.040000	0.020000	0.490000	0.100465
NPF	3.586875	3.165000	0.670000	5.700000	1.508536
BOPO	97.86375	98.21500	92.78000	99.50000	1.493663

Source: (Output Eviews.12, 2025)

The descriptive statistics indicate that Bank Muamalat Indonesia faced considerable challenges during the observation period. The average ROA was only 0.0869%, the lowest among the sampled banks, suggesting limited profitability. At the same time, the BOPO ratio averaged 97.86%, reflecting very high operational costs relative to operating income. The NPF ratio, at an average of 3.59%, was also the highest compared to peers. These figures underscore that Bank Muamalat Indonesia experienced significant pressure from both operational inefficiency and elevated credit risk, which in turn constrained its overall financial performance.

Table 2. Descriptive Statistic of Maybank Islamic Berhad

Variable	Mean	Median	Minimum	Maximum	Std. Deviation
ROA	0.561875	0.290000	0.050000	1.700000	0.461159
NPF	1.044375	1.450000	1.070000	1.570000	0.242606
BOPO	31.54188	29.29000	20.84000	51.23000	6.481629

Source: (Output Eviews.12, 2025)

The results for Maybank Islamic Berhad reveal the strongest risk profile among the sampled banks, as reflected in the lowest average NPF ratio of 1.04%. Its BOPO ratio was also the lowest, averaging 31.54%, which indicates a high level of operational efficiency. However, the banks average ROA of 0.56% was below that of CIMB Islamic Berhad and Bank Mega Syariah. This finding may reflect differences in market dynamics or business strategies. Consistent with Nurhayati,[12] such variations in ROA can be influenced by both external factors,

[12] Nurhayati dkk., "PENGARUH BOPO, NON PERFOMING FINANCING, INFLASI TERHADAP RETURN ON ASSET PADA PERBANKAN SYARIAH DI INDONESIA."

such as regulatory environments, and unique internal structures, beyond the direct effects of efficiency and credit risk ratios.

Table 3. Descriptive Statistics of Bank Mega Syariah

Variable	Mean	Median	Minimum	Maximum	Std. Deviation
ROA	1.816250	1.685000	0.610000	4.080000	0.897983
NPF	1.824688	1.585000	0.910000	4.330000	0.907933
BOPO	83.29563	84.19000	64.64000	95.43000	9.829257

Source: (Output Eviews.12, 2025)

The descriptive statistics show that Bank Mega Syariah achieved the highest average ROA among the sampled banks at 1.82%, indicating superior profitability. Although its average NPF of 1.82% was higher than that of CIMB Islamic Berhad and Maybank Islamic Berhad, the BOPO ratio averaged 83.30%, reflecting a reasonably strong level of operational efficiency. This outstanding performance, particularly in terms of ROA, may suggest the success of effective management strategies in asset utilization and cost control. These findings are consistent with Syifa Nurmila F. et., al.,[13] who argue that bank-specific factors, such as effective business strategies and product innovation, play a significant role in enhancing profitability.

Table 4. Descriptive Statistics of CIMB Islamic Berhad

Variable	Mean	Median	Minimum	Maximum	Std. Deviation
ROA	1.067188	1.040000	0.130000	2.280000	0.723398
NPF	1.444063	1.450000	1.070000	1.930000	0.206599
BOPO	47.98844	50.59500	37.41000	70.00000	6.720532

Source: (Output Eviews.12, 2025)

The results indicate that CIMB Islamic Berhad demonstrated strong operational efficiency, with an average BOPO ratio of 47.99%, the second-lowest among the sampled banks. Its NPF ratio was also low, averaging 1.44%. This combination of efficient operations and low credit risk contributed to a relatively solid ROA of 1.07%. These findings reinforce the conclusions of Lekal Budiansyah

[13] Syifa Nurmilla Fathiyyah dan Muhammad Muflih, "Determinants of Islamic Banking Profitability: A Comparative Analysis of Indonesia and Malaysia," *Jurnal Ekonomi Syariah Teori dan Terapan* 10, no. 4 (2023): 391–402, https://doi.org/10.20473/vol10iss20234pp391-402.

and Ahman,[14] who emphasize that operational efficiency (as measured by BOPO) is a critical determinant of Islamic bank profitability. Overall, the descriptive analysis highlights notable differences in the financial profiles of the sampled Islamic banks. Bank Muamalat Indonesia recorded relatively weaker performance, characterized by the lowest ROA, highest NPF, and elevated BOPO, indicating persistent challenges in profitability, credit quality, and efficiency. In contrast, Maybank Islamic Berhad exhibited a comparatively stronger risk profile, with the lowest NPF and BOPO ratios, although its ROA was moderate compared to peers. Bank Mega Syariah achieved the highest ROA, suggesting relatively superior profitability, supported by reasonable efficiency despite a higher NPF than the Malaysian banks. CIMB Islamic Berhad demonstrated balanced performance, combining low NPF and relatively high efficiency with a solid ROA. These variations indicate that Islamic banks' profitability is shaped not only by credit risk and operational efficiency but also by bank-specific strategies and market conditions.

Panel Regression Model Selection

In this study, the analysis employed panel data regression, conducted through a series of specification tests. The estimation process involved two main steps: the Chow test (F-test) to determine the appropriate model between Pooled Least Squares (PLS) and the Fixed Effect Model (FEM), followed by the Hausman test to select between the Fixed Effect Model (FEM) and the Random Effect Model (REM).

Chow Test

Figure 2. Chow Test

Redundant Fixed Effects Tests
Pool: KODE
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	29.654652	(1,60)	0.0000
Cross-section Chi-square	25.703713	1	0.0000

Source: (Output Eviews.12, 2025)

Based on the Chow test results reported in Figure 2, the probability value of the cross-section F statistic is 0.0000, which is below the 0.05 significance level. Accordingly, the null hypothesis (H_0), which assumes that the Pooled Least Squares (PLS) model is adequate, is rejected in favor of the alternative hypothesis

[14] Ahman Lekal Budiansyah, "Faktor Yang Mempengaruhi Kinerja Keuangan Perbankan: LDR, CAR dan BOPO," *Jurnal Locus Penelitian dan Pengabdian* 2, no. 4 (2023): 375–79, https://doi.org/10.58344/locus.v2i4.1004.

(H_1). This indicates that the Fixed Effect Model (FEM) is the most appropriate specification for the panel regression analysis.

Hausman Test

Figure 3. Hausman Test

Correlated Random Effects - Hausman Test
Pool: KODE
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	79.101613	2	0.0000

Source: (Output Eviews.12, 2025)

The Hausman test results in a Chi-Square statistic of 79.101613 with 2 degrees of freedom and a probability value of 0.0000. Since the probability is below the 0.05 significance threshold, the null hypothesis (H_0), which favors the Random Effect Model (REM), is rejected. Consequently, the alternative hypothesis (H_1) is accepted, indicating that the Fixed Effect Model (FEM) provides a more appropriate specification than REM. This suggests that there is a significant relationship between the independent variables and individual effects (cross-sections), there by supporting the application of FEM to better explain variations in the profitability (ROA) of Islamic banks in Indonesia and Malaysia. In summary, the results of both the Chow and Hausman tests consistently indicate that the Fixed Effect Model (FEM) is the most appropriate specification. Accordingly, all subsequent regression analyses in this study are based on the FEM framework.

Fixed Effect Model Results

Figure 4. Fixed Effect Model Estimation Results

Dependent Variable: ROA?
Method: Pooled Least Squares
Date: 08/30/25 Time: 20:56
Sample: 1 32
Included observations: 32
Cross-sections included: 4
Total pool (balanced) observations: 128

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.751829	0.411978	11.53418	0.0000
NPF?	-0.020448	0.050275	-0.406724	0.6849
BOPO?	-0.058743	0.006596	-8.906443	0.0000
Fixed Effects (Cross)				
BMI_0--C	1.157161			
BMS_0--C	1.994734			
CIMBIB_1--C	-0.836148			
MIB_1--C	-2.315747			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.725649	Mean dependent var	0.883047
Adjusted R-squared	0.714405	S.D. dependent var	0.890296
S.E. of regression	0.475784	Akaike info criterion	1.398034
Sum squared resid	27.61717	Schwarz criterion	1.531723
Log likelihood	-83.47420	Hannan-Quinn criter.	1.452353
F-statistic	64.53724	Durbin-Watson stat	1.107394
Prob(F-statistic)	0.000000		

The estimated regression equation is as follows:

$$ROA = 4.751829 - 0.020448\,(X1) - 0.058743\,(X2)$$

Interpretation:

The regression results reveal several important points. The constant (C = 4.751829) indicates a theoretical baseline profitability (ROA) of 4.75% when NPF and BOPO are zero. The coefficient for credit risk (NPF) is –0.020448 and statistically insignificant (p = 0.6849), suggesting that higher levels of non-performing financing do not significantly affect profitability, consistent with prior studies (Chong and Sharifah[15]; Hendri and Revina).[16] In contrast, the coefficient for operational efficiency (BOPO) is –0.058743 and highly significant (p = 0.0000), indicating that a 1% increase in BOPO reduces ROA by approximately 0.059%. This finding confirms that operational efficiency is a critical determinant of profitability, which aligns with earlier evidence (Irawan et., al.[17]; Nugraha and Nuni[18]). Overall, operational efficiency emerges as the most significant factor influencing the profitability of Islamic banks in Indonesia and Malaysia.

Hipothesis Testing

This section presents the hypothesis testing results to evaluate the joint and individual effects of credit risk (NPF) and operational efficiency (BOPO) on bank profitability (ROA). The F-test is employed to assess the simultaneous significance of all independent variables in the model, while the t-test examines the partial effect of each explanatory variable. These tests provide statistical validation of whether NPF and BOPO significantly influence the profitability of Islamic banks in Indonesia and Malaysia, either collectively or individually.

F-Test (Simultaneous Test)

Table 5. F-Test (Simultaneous Test)

F-Statistic	64.53724
Prob (F-statistic)	0.00000

Source: (Output Eviews.12, 2025)

The results in Table 5 show that the F-statistic is 64.53724 with a probability value of 0.0000, which is well below the 0.05 significance threshold.

[15] Chong Chai Hung dan Sharifah Sabrina Ali, "Credit Risk Management and Its Effect on Financial Performance Between Conventional and Islamic Banks in Malaysia," *Unimas Review of Accounting and Finance* 8, no. 1 (2024): 2024.

[16] Hendri Maulana dan Revina Dwi Febriyanti, "Pengaruh Pembiayaan Bermasalah (Npf) Terhadap Profitabilitas Di Pt. Bprs Bogor Tegar Beriman," *Moneter: Jurnal Keuangan dan Perbankan* 9, no. 1 (2021): 6, https://doi.org/10.32832/moneter.v9i1.5746.

[17] Panji Irawan dkk., "Operational Risk and Bank Profitability: Analyzing BOPO and Efficiency Ratios in Indonesian Commercial Banks," *Jurnal Pendidikan Indonesia* 6, no. 1 (2025): 338–46, https://doi.org/10.59141/japendi.v6i1.6775.

[18] Nugraha Nugraha dan Nuni Ayu Warawiati, "Rasio Kecukupan Modal Dan Biaya Operasional Sebagai Faktor Penentu Profitabilitas Bank Umum Syariah Di Indonesia," *Jurnal Neraca: Jurnal Pendidikan dan Ilmu Ekonomi Akuntansi* 2, no. 1 (2018): 80–87, https://doi.org/10.31851/neraca.v2i1.2231.

Accordingly, the null hypothesis (H_0), which assumes that NPF and BOPO have no joint effect on ROA, is rejected in favor of the alternative hypothesis (H_1). This indicates that credit risk (NPF) and operational efficiency (BOPO) collectively exert a statistically significant influence on the profitability (ROA) of Islamic banks in Indonesia and Malaysia during the 2017–2024 period.

T-Test (Partial Test)

Table 6. T-Test Result (Partial Test)

Variable	Probability	Treshold	Decision
NPF	0.6849	0.05	>0.05
BOPO	0.0000	0.05	<0.05

Source: (Output Eviews.12, 2025)

The results in Table 6 demonstrate that the p-value for NPF is 0.6849, which exceeds the 0.05 significance level. This indicates that credit risk (NPF) does not have a statistically significant partial effect on profitability (ROA) during the 2017–2024 period. This finding is consistent with international studies (Koten[19]; Le and Ngo[20]), which demonstrate that the impact of non-performing financing on profitability is not always statistically significant and depends on the context of the sample, period, and analytical method. In contrast, the p-value for BOPO is 0.0000, well below the 0.05 threshold, showing that operational efficiency (BOPO) has a statistically significant negative effect on the profitability (ROA) of Islamic banks in Indonesia and Malaysia over the same period. This result is also in line with previous evidence (Irawan et., al.[21]; Nugraha and Nuni[22]), which confirms that inefficient cost management directly undermines bank profitability.The effect of NPF on ROA, based on the statistical analysis, shows that credit risk does not exert a significant partial influence on the profitability of Islamic banks in Indonesia and Malaysia during the 2017–2024 period. The t-test result indicates a significance value of 0.6849, which is greater than 0.05, implying that H_0 is accepted and H_a is rejected. This finding is consistent with international studies (Koten[23]; Le and Ngo[24]), which demonstrate that the impact of non-performing

[19] Aysegul Berrak Koten, "Determination of the relationship between non-performing loans and profitability in the Turkish banking system with panel regression analysis," *Pressacademia* 14, no. 1 (2021): 14–19, https://doi.org/10.17261/pressacademia.2021.1478.

[20] Tu DQ Le dan Thanh Ngo, "The determinants of bank profitability: A cross-country analysis," *Central Bank Review* 20, no. 2 (2020): 65–73, https://doi.org/10.1016/j.cbrev.2020.04.001.

[21] Irawan dkk., "Operational Risk and Bank Profitability: Analyzing BOPO and Efficiency Ratios in Indonesian Commercial Banks."

[22] Nugraha dan Warawiati, "Rasio Kecukupan Modal Dan Biaya Operasional Sebagai Faktor Penentu Profitabilitas Bank Umum Syariah Di Indonesia."

[23] Koten, "Determination of the relationship between non-performing loans and profitability in the Turkish banking system with panel regression analysis."

[24] Le dan Ngo, "The determinants of bank profitability: A cross-country analysis."

financing on profitability is not always statistically significant and depends on the context of the sample, period, and analytical method. In contrast, the effect of BOPO on ROA is statistically significant. The t-test shows a significance value of 0.0000, which is less than 0.05, leading to the rejection of H_0 and the acceptance of H_a. This result confirms that operational efficiency, as measured by BOPO, exerts a significant negative effect on the profitability of Islamic banks in Indonesia and Malaysia.

Coefficient of Determination (R^2)

Table 7. Coefficient of Determination (R^2)

R-squared	0.725649
Adjusted R-square	0.714405

Source: (Output Eviews.12, 2025)

The coefficient of determination (R^2) obtained from the Fixed Effect Model is 0.7256, or 72.56%. This result indicates that credit risk (NPF) and operational efficiency (BOPO) together explain approximately 72.56% of the variation in profitability (ROA) among Islamic banks in Indonesia and Malaysia. The remaining 27.44 % is attributable to other factors outside the model. The relatively high explanatory power of the model confirms the central role of NPF and BOPO in shaping bank profitability, providing strong empirical support for their inclusion as key determinants in cross-country Islamic banking studies. At the same time, the unexplained portion highlights the influence of additional variables, such as bank size, capital adequacy, macroeconomic conditions, or institutional frameworks, which were not incorporated in this model. These findings suggest that while NPF and BOPO are critical drivers of profitability, future research should consider integrating broader financial and macroeconomic indicators to provide a more comprehensive explanation of Islamic bank performance.

Cross-Country Comparison: Indonesia and Malaysia

This section presents a comparative analysis of Islamic banks in Indonesia and Malaysia by employing an independent sample mean-difference test. The purpose of this analysis is to assess whether significant differences exist in the key financial indicators, namely credit risk (NPF), operational efficiency (BOPO), and profitability (ROA), across the two countries. Such a cross-country comparison is essential because variations in regulatory frameworks, market structures, and institutional practices may lead to different performance outcomes. By highlighting these distinctions, the analysis provides deeper insights into the determinants of Islamic bank profitability within diverse national contexts.

Table 8. Results of Cross-Country Comparison: Islamic Banks in Indonesia and Malaysia

Variable	Mean Indonesia	Mean Malaysia	P-value t-test	P-value F-test	Conclussion
NPF	2,705781	1,244219	0,0000 < 0,05	0,0000 < 0,05	Significantly different
BOPO	89,94766	66,91700	0,0000 < 0,05	0,0000 < 0,05	Significantly different
ROA	0,547891	1,347734	0,0000 < 0,05	0,0000 < 0,05	Significantly different

Source: (Output Eviews.12, 2025)

The results in Table 8 reveal that the mean values of NPF, BOPO, and ROA differ significantly between Islamic banks in Indonesia and Malaysia, as all p-values are below the 0.05 threshold. The average NPF in Indonesia is 2.71%, considerably higher than Malaysia's 1.24%, suggesting that credit quality in Indonesian Islamic banks faces greater challenges. This finding aligns with previous studies (Farida[25]; Jaenal et., al.[26]; Hilya and Nuryaman[27]), which emphasize that higher levels of non-performing financing are associated with weaker profitability outcomes. In contrast, Bank Indonesia considers an NPF level below 5% as acceptable, yet the difference between the two countries underscores Indonesia's relatively higher credit risk exposure. Regarding operational efficiency, the average BOPO ratio in Indonesia is 89.95%, markedly higher than Malaysia's 66.92%. This highlights Malaysia's superior operational efficiency, consistent with the OJK 2022 report, which notes persistent efficiency challenges in Indonesian Islamic banks due to overhead costs and limited economies of scale. Kalsum et., al.[28] further argue that reducing the proportion of income consumed by operating expenses is key to improving efficiency. Malaysia's success is partly attributed to policy direction, as outlined in Bank Negara Malaysia's *Financial Sector Blueprint 2011–2020*, which emphasized digital innovation to reduce costs[29]. In addition, the focus on retail financing helped Malaysian Islamic banks sustain stable cash flows and mitigate risks associated with corporate financing, particularly during the COVID-19

[25] Farida dan Veni Soraya Dewi, *The Analysis of Risk Management on Syariah Banking in Indonesia*, no. May 2016 (2016): 164–74.

[26] Jaenal Effendi dkk., "Factors Influencing Non-Performing Financing (NPF) at Sharia Banking," *Walisongo: Jurnal Penelitian Sosial Keagamaan* 25, no. 1 (2017): 109, https://doi.org/10.21580/ws.25.1.1540.

[27] Hilya Nisa Nur Fadhilah dan Nuryaman Nuryaman, "Analysis of Factors Affecting Profitability (Study on Islamic Commercial Banks Registered with the Financial Services Authority in 2018 - 2022)," *Dinasti International Journal of Economics, Finance & Accounting* 5, no. 5 (2024): 5203–12, https://doi.org/10.38035/dijefa.v5i5.3399.

[28] Ummi Kalsum dan Randy Hidayat, "Biaya Operasional Pendapatan Operasional (Bopo) Dan Capital Adequacy Ratio (Car) Terhadap Profitabilitas Bank Umum Syariah Di Indonesia," *Balance : Jurnal Akuntansi dan Bisnis* 8, no. 1 (2023): 76, https://doi.org/10.32502/jab.v8i1.6125.

[29] "Adnan Zaylani Mohamad Zahid: Keuangan Islam, pembayaran elektronik, dan teknologi finansial," Accessed 13 September 2025, https://www.bis.org/review/r201204i.htm?

pandemic.[30] The average ROA also differs significantly, with Indonesia recording 0.55% compared to Malaysia's 1.35%. This indicates that Malaysian Islamic banks are more profitable, a conclusion supported by Ascarya and Yumanita.[31] who highlight that Indonesian banks face profitability constraints from higher operating costs and greater exposure to credit risk. In contrast, the Islamic Financial Services Board (IFSB) 2021[32] reported that Malaysian Islamic banks maintained stronger profitability due to their concentration in retail financing, which is considered less vulnerable to adverse economic shocks compared to corporate financing. Collectively, these results reinforce the importance of operational efficiency and credit risk management in shaping profitability while also demonstrating that contextual factors at the country level play a crucial role in determining performance outcomes.

Fixed Effect Model Estimation by Country

Following the mean-difference analysis, this section presents the estimation results of the Fixed Effect Model (FEM) separately for Indonesia and Malaysia. The objective is to identify whether credit risk (NPF) and operational efficiency (BOPO) exhibit different levels of influence on the profitability (ROA) of Islamic banks across the two jurisdictions. This approach not only highlights country-specific dynamics but also provides more nuanced insights into the structural and institutional contexts that shape financial performance in each country. By distinguishing the results, the analysis offers a stronger empirical foundation for understanding variations in profitability drivers and enables more targeted policy and managerial implications.

Figure 5. Fixed Effect Model Estimation Results for Islamic Banks in Indonesia

Dependent Variable: ROA?
Method: Pooled Least Squares
Date: 09/08/25 Time: 10:45
Sample: 1 32
Included observations: 32
Cross-sections included: 2
Total pool (balanced) observations: 64

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.236067	0.539698	15.26052	0.0000
NPF?	0.041689	0.035417	1.177070	0.2438
BOPO?	-0.081666	0.006272	-13.02030	0.0000
Fixed Effects (Cross)				
2--C	-0.306557			
3--C	0.306557			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.916049	Mean dependent var	0.951563
Adjusted R-squared	0.911852	S.D. dependent var	1.077639
S.E. of regression	0.319949	Akaike info criterion	0.619151
Sum squared resid	6.142039	Schwarz criterion	0.754081
Log likelihood	-15.81283	Hannan-Quinn criter.	0.672307
F-statistic	218.2344	Durbin-Watson stat	0.396540
Prob(F-statistic)	0.000000		

[30] "Retail financing to help Malaysia's Islamic banks withstand Covid-19 disruptions – AIBIM," Accessed 16 September 2025, https://aibim.com/news/retail-financing-to-help-malaysia-islamic-banks-withstand-Covid-19-disruptions?

[31] Ascarya Ascarya dan Diana Yumanita, "COMPARING THE EFFICIENCY OF ISLAMIC BANKS IN MALAYSIA AND INDONESIA," *Buletin Ekonomi Moneter Dan Perbankan* 11, no. 2 (2009), https://doi.org/10.21098/bemp.v11i2.237.

[32] "Islamic Financial Services Industry Stability Report 2021 - Islamic Financial Services Board," Accessed 24 September 2025, https://www.ifsb.org/publication-document/islamic-financial-services-industry-stability-report-2021/.

Source: (Output Eviews.12, 2025)

The regression results using the Fixed Effect Model (FEM) for Islamic banks in Indonesia indicate that Non-Performing Financing (NPF) has a positive coefficient of 0.041689 with a probability value of 0.2438, which exceeds the 0.05 significance level. This finding suggests that NPF does not exert a statistically significant effect on Return on Assets (ROA) during the observation period. In practical terms, the presence of non-performing financing has not been proven to significantly undermine profitability, as banks are able to mitigate credit risk through the establishment of loan loss provisions (CKPN). This mechanism serves as a critical risk management tool, allowing Islamic banks to absorb potential losses from non-performing financing. Previous studies, such as those by Salsabila et al.[33] and Utami and Wuryani,[34] support this finding, emphasizing the role of CKPN in stabilizing financial performance despite elevated levels of problem financing.

By contrast, the Operating Expenses to Operating Income ratio (BOPO) shows a significant negative effect on profitability, with a coefficient of −0.081666 and a probability value of 0.0000, which is well below the 0.05 threshold. This result underscores the importance of operational efficiency as a determinant of profitability in Indonesia's Islamic banking sector. A higher BOPO ratio indicates that operational costs consume a substantial portion of income, thereby exerting downward pressure on profits. The R-squared value of 0.9160 further demonstrates that the model explains approximately 91.60% of the variation in ROA, leaving only 8.40% attributable to factors outside the model. These results reaffirm that operational efficiency is the dominant driver of profitability in Indonesian Islamic banks, while credit risk does not exhibit a significant direct effect. The findings are consistent with prior research (Umilia and Novien[35];

[33] Ninis Salsabila Maharani dan Yudha Trishananto, *Pengaruh NPF dan FDR terhadap ROA dengan CAR sebagai Variabel Intervening Pada Bank Umum Syariah di Indonesia Tahun 2019-2023*, 9865 (2025): 113–22.

[34] Dean Aghitna Utami dan Eni Wuryani, "*Pengaruh Profitabilitas, Kecukupan Modal, Dana Cadangan Dan Tingkat Suku Bunga Terhadap Kredit Bermasalah Pada Bank Umum Konvensional Yang Terdaftar Di Bursa Efek Indonesia Tahun* 2014-2017," *Rajawali Pers.* 8, no. 2 (2017): 10.

[35] Umilia Audina dan Novien Rialdy, "Pengaruh Bopo, Npf, Fdr Terhadap Roa Unit Usaha Syariah Di Indonesia 2021-2023," *Jurnal Ilmiah Ekonomi, Manajemen, Bisnis Dan Akuntansi* 1, no. 2 (2024): 103–11, https://doi.org/10.61722/jemba.v1i2.107.

Maulida et., al.[36]; Wiyan and Sofia[37]; Bintang et al.[38]), which highlights operational efficiency as a critical determinant of financial performance in Islamic banking.

Figure 6. Fixed Effect Model Estimation for Islamic Banks in Malaysia

Dependent Variable: ROA?
Method: Pooled Least Squares
Date: 09/08/25 Time: 11:23
Sample: 1 32
Included observations: 32
Cross-sections included: 2
Total pool (balanced) observations: 64

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.837199	0.506593	5.600550	0.0000
NPF?	-0.599507	0.320571	-1.870122	0.0663
BOPO?	-0.032107	0.010941	-2.934672	0.0047
Fixed Effects (Cross)				
0--C	-0.636491			
1--C	0.636491			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.334152	Mean dependent var	0.814531
Adjusted R-squared	0.300860	S.D. dependent var	0.653447
S.E. of regression	0.546377	Akaike info criterion	1.689448
Sum squared resid	17.91169	Schwarz criterion	1.824378
Log likelihood	-50.06233	Hannan-Quinn criter.	1.742604
F-statistic	10.03690	Durbin-Watson stat	1.197989
Prob(F-statistic)	0.000019		

Source: (Output Eviews.12, 2025)

The regression results using the Fixed Effect Model (FEM) for Islamic banks in Malaysia reveal that the Non-Performing Financing (NPF) variable has a negative coefficient of –0.595957 with a probability value of 0.0663, which is greater than the 0.05 significance level. This suggests that while higher levels of NPF tend to reduce profitability as measured by ROA, the effect is not statistically significant. Hence, credit risk in Malaysian Islamic banks during the study period does not provide sufficient statistical evidence of a direct impact on profitability.

In contrast, the Operating Expenses to Operating Income ratio (BOPO) displays a negative and statistically significant coefficient of –0.032107, indicating that lower operational efficiency substantially reduces bank profitability. This finding underscores the crucial role of cost efficiency in shaping financial performance. The model yields an R-squared value of 0.334152, showing that only 33.41% of the variation in ROA can be explained by NPF and BOPO, while the remaining 66.59% is influenced by other factors outside the model. This relatively modest explanatory power suggests that additional determinants such as bank size, capital adequacy, financing-to-deposit ratio, and macroeconomic conditions

[36] Nurul Aulia Maulida dan Mufti Arief Arfiansyah, "Analisis Pengaruh Rasio Keuangan Terhadap Profitabilitas Perbankan Syariah Di Indonesia Dengan Inflasi Sebagai Varibel Pemoderasi," *Al Iqtishod: Jurnal Pemikiran dan Penelitian Ekonomi Islam* 12, no. 2 (2024): 253–73, https://doi.org/10.37812/aliqtishod.v12i2.1622.

[37] Wiyan Mailindra dan Sofia Adinda, "OPERATIONAL EFFICIENCY OR NON-PERFORMING LOANS? ANALYSIS OF SHARIA BANK PERFORMANCE 2015–2022," preprint, 2Faculty of Islamic Economics and Business, IAIN Kerinci, Indonesia, 2024, 74–82.

[38] Bintang Kartika dkk., "Kinerja Bank Syariah Indonesia: Analisis Pengaruh NPF, BOPO, dan CAR Tahun 2015–2024," *RIGGS: Journal of Artificial Intelligence and Digital Business* 4, no. 2 (2025): 291–99, https://doi.org/10.31004/riggs.v4i2.488.

likely play an important role in driving profitability in the Malaysian Islamic banking sector.

When compared with the results for Indonesia, a striking contrast emerges. The Indonesian model showed a very high explanatory power, with ROA being predominantly shaped by operational efficiency (BOPO), while credit risk (NPF) was statistically insignificant. In Malaysia, although BOPO remains a critical determinant, the overall explanatory power is considerably lower, reflecting a more complex profitability structure influenced by external and bank-specific variables beyond efficiency and credit risk alone. This difference highlights how institutional, regulatory, and market environments shape the dynamics of Islamic banking profitability across countries, providing empirical support for the importance of cross-country comparative analysis.

Cross-Country Synthesis of FEM Findings: Indonesia and Malaysia

The comparative analysis of the Fixed Effect Model across Indonesia and Malaysia highlights important differences in the determinants of Islamic bank profitability. In Indonesia, profitability (ROA) is overwhelmingly explained by operational efficiency (BOPO), with the model accounting for more than 90% of the variation. This indicates that efficiency management is the central driver of performance, while credit risk (NPF) plays only a limited role due to effective risk mitigation strategies such as loan loss provisions. These findings are consistent with earlier studies Salsabila et al.[39]; Utami and Wuryani[40], which emphasize the role of operational cost management as a determinant of bank performance.

In Malaysia, while BOPO also exerts a significant negative effect on profitability, the explanatory power of the model is much lower at just over 33%. This suggests that profitability is shaped not only by operational efficiency but also by a broader set of factors including bank-specific characteristics, market competition, and macroeconomic conditions. Prior research Abdul et. al.,[41]; Mohamed Eskandar Shah Mohd Rasid[42] reinforces this view, showing that Malaysian Islamic banks benefit from strong credit risk management practices that reduce the statistical significance of NPF, while efficiency remains an essential driver of profitability.

Taken together, the results indicate that although operational efficiency is a common determinant across both Indonesia and Malaysia, the relative weight of explanatory factors differs markedly. In Indonesia, internal efficiency is dominant, reflecting regulatory emphasis by OJK and Bank Indonesia on cost control and prudential management. In contrast, in Malaysia, the lower explanatory power of the model underscores the importance of external dynamics, such as monetary

[39] Salsabila Maharani dan Trishananto, *Pengaruh NPF dan FDR terhadap ROA dengan CAR sebagai Variabel Intervening Pada Bank Umum Syariah di Indonesia Tahun 2019-2023*.

[40] Dean Aghitna Utami dan Wuryani, "PENGARUH PROFITABILITAS, KECUKUPAN MODAL, DANA CADANGAN DAN TINGKAT SUKU BUNGA TERHADAP KREDIT BERMASALAH PADA BANK UMUM KONVENSIONAL YANG TERDAFTAR DI BURSA EFEK INDONESIA TAHUN 2014-2017."

[41] Abdul Hakam Naja, "Is Islamic Banking Performance in Malaysia Truly Better Than Indonesia?" *Journal of Islamic Monetary Economics and Finance* 9, no. 4 (2023): 611–36, https://doi.org/10.21098/jimf.v9i4.1784.

[42] Mohammad Ashraful Ferdous Chowdhury dan Mohamed Eskandar Shah Mohd Rasid, "The determinants of the profitability of Islamic banks: A cross-sectional study from Asia and Africa," *International Journal of Business and Globalisation* 15, no. 3 (2015): 375–88, https://doi.org/10.1504/IJBG.2015.071913.

policy, product diversification, and global financial integration, in shaping Islamic bank profitability. These findings highlight the need for country-specific strategies in enhancing the performance and competitiveness of Islamic banks.

CONCLUSION

This study analyzed the impact of credit risk (NPF) and operational efficiency (BOPO) on the profitability of Islamic banks in Indonesia and Malaysia over the 2017–2024 period. The Fixed Effect Model results indicate that in Indonesia, operational efficiency (BOPO) is the dominant determinant of profitability, with the model explaining 91.60% of the variation in ROA, while credit risk (NPF) does not exhibit a statistically significant effect. In Malaysia, BOPO also shows a significant negative effect on profitability, but the model accounts for only 33.41% of the variation in ROA, indicating that profitability in Malaysia is influenced by a broader set of factors beyond NPF and BOPO. The findings carry important academic implications by reinforcing the central role of cost efficiency in determining Islamic bank performance, while also demonstrating cross-country differences in explanatory power.

In Indonesia, profitability is largely shaped by internal bank efficiency, whereas in Malaysia, external factors such as macroeconomic conditions, market structure, and regulatory frameworks appear to play a greater role. This underscores the need for future research to integrate broader financial and institutional variables in order to capture the full dynamics of Islamic bank performance. From a practical perspective, the study suggests that policymakers and practitioners should prioritize strengthening operational efficiency as a key strategy to enhance profitability in Islamic banks. For Indonesia, improving cost management and optimizing resource allocation are essential for sustaining growth. For Malaysia, while efficiency remains important, greater emphasis should be placed on managing external risks, fostering innovation, and deepening market resilience to complement internal efficiency measures. Overall, the results highlight that while efficiency is a common driver of profitability across both countries, the relative importance of other contextual factors differs, requiring country-specific strategies to strengthen the competitiveness and stability of Islamic banking in the ASEAN region.

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