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## ASSESSING THE IMPACT OF OPERATIONAL EFFICIENCY, CAPITAL STRUCTURE AND CAPITAL ADEQUACY ON ISLAMIC BANK PROFITABILITY IN MALAYSIA

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### Abstract:

Bank Negara Malaysia reported in 2025 that the total Malaysian Islamic Banking Assets has reached USD312 representing 82% Malaysia's share out of total ASEAN. In Malaysia, the Islamic banking sector continues to grow rapidly yet the Islamic banks struggle to balance the operational efficiency, debt ratio and capital adequacy all of which are important to the financial performance. This study aims to examine the impact of operational efficiency, debt ratio and capital adequacy ratio on the Islamic bank profitability in Malaysia. Profitability is measured using the Return on Assets (ROA). The study uses panel data from the annual report of 11 Islamic banks in Malaysia from 2014 to 2023. Panel EGLS (cross-section weights) was used to analyze the data. The findings show that operational efficiency and capital adequacy ratio have a significant negative on profitability while the debt ratio has a significant positive impact. This research provides insight for the Islamic bank management, regulators and investors to strengthen the financial performance.

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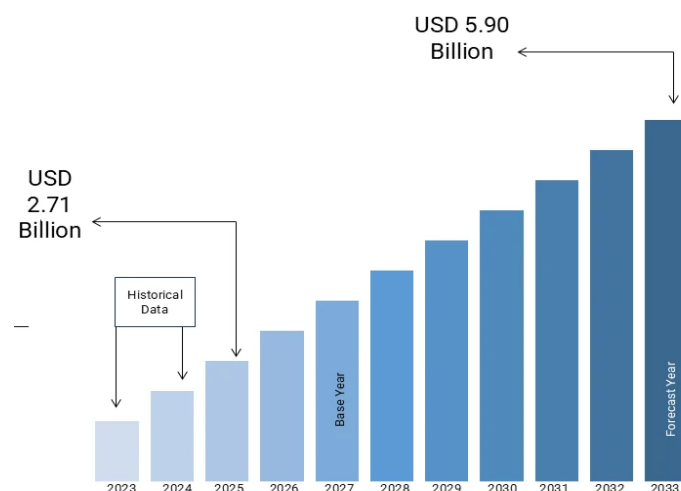
Islamic Banking, Profitability, Operational Efficiency, Debt Ratio, Capital Adequacy Ratio



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## Introduction

In recent decades, Islamic banking has evolved into a rapidly growing sector in the financial industry. As the dominant segment in the global Islamic finance industry, Islamic banking contributes more than 70 percent of total Islamic finance assets, with the value of Islamic banking assets is to be projected to grow from approximately USD 4 trillion in 2024 to USD 5.2 trillion by 2028 (Standard Chartered, 2025). Being an alternative to the interest-based conventional banking, Islamic banking offers financial products and services that comply to the with Islamic legal and ethical principles. It focuses on risk and profit sharing between parties to ensure fairness and all transactions are based on the underlying business activity or asset. Islamic banking encourages entrepreneurship, trade and making contributions that help the society. It strictly does not allow the involving of interest (*riba*), gambling (*maisir*) or risky speculative trading (*gharar*). Islamic banking's distinctive frameworks use ideas such as *ijarah* (leasing), *mudharabah* (profit sharing) and *musyarakah* (partnership), positioning the institution as a more ethical and socially responsible mode of financial intermediation. By making sure all transactions are based on real business activities, Islamic banking encourages responsible investment and reduces risks. The Islamic banking sector share of total financing in the financial system are increase from 44.5% in 2022 to 45.6% in 2023 which amounted RM1,049.7 billion (Bank Negara Malaysia, 2023).



**Figure 1: Global Islamic Finance Market Size**

Source: Market Data Forecast Analysis

Even though Islamic banking has been practiced as early as the 7<sup>th</sup> century when Prophet Muhammad (pbuh) introduced the concept of interest-free transactions as a core principle of Islamic finance, the founding of Mit Ghamr Savings Bank in Egypt in 1963 marked the contemporary practice of Islamic banking. With 17 Islamic financial institutions, both foreign and local, Malaysia, becomes one of the largest Islamic banking markets in ASEAN and globally. According to Al-Natoor (2026), Islamic banking assets in Malaysia exceeded USD312 billion in 2025, with shariah financing accounting for about 44% of system loans, up from 43% in 2024. Malaysia has been identified as the most advanced country in promoting Islamic finance and has a well-established financial regulatory framework (Ministry of Finance, 2022). Bank Negara Malaysia (BNM) and Securities Commissions (SC) monitor the well-designed rules and regulations of Islamic finance in Malaysia. And the enforcement of the Islamic Financial Services Act (IFSA) on 30 June 2013, replacing the repealed Payment System Act 2003 (PSA) is a clear example of how seriously the government of Malaysia in promoting Shariah compliance in Islamic financial instruments, the IFSA promotes safe, efficient and reliable payment systems and instruments (Bank Negara Malaysia, 2013).

Malaysia has a dual-banking system, where the Islamic banks operate side by side the conventional banks. Although Islamic banking has rapidly expanded in the recent years, it remains a relatively younger financial system compared to the long dominated conventional banks. Islamic banks compete directly with conventional banks for deposits, financing customers and market share. This brings pressure to Islamic banks to offer a more competitive rates, which will decrease the profit. Not only that, but Islamic banks also incur additional costs related to the shariah governance and compliance, shariah advisory board, product structuring and documentation and continuous monitoring of shariah compliance. The increase in these costs will reduce the profitability of Islamic banks. These differences illustrate the challenges in optimising Islamic banks resources as this is crucial to the profitability of Islamic banks. Due to that, there have been various studies that compares the profitability between Islamic and conventional banks, with contradictory findings (Bouri, 2019; Mohd Jaapar, 2025; Ramlan & Adnan, 2016).

Therefore, an analysis of the determinants of Islamic bank profitability must be conducted comprehensively by combining economic approaches and Islamic principles. This study is undertaken to fulfil the three primary research objectives. The first objective is to examine the influence of operational efficiency towards profitability of Islamic banks in Malaysia. The second study intended to examine the influence of debt ratio towards profitability of Islamic banks in Malaysia. And finally, the third objective is to examine the influence of capital adequacy ratio towards profitability of Islamic banks in Malaysia. This paper is structured as follows: it commences with a literature review, proceeds to methodology, presents findings and discussions, and concludes with a summary.

## **Literature review and Hypothesis Development**

The previous studies found that the return on assets (ROA) was the best measurement for performance of Islamic Bank (Rehman, Aslam, & Iqbal, 2022). A study conducted by Tarishah, Tubagus and Noraziah (2026) found that conventional banks have a higher ROA than Islamic banks. In order to ensure Islamic Banks, remain resilient, it is importance to measure its performance, profitability and efficiency. Addury (2023) found that debt financing emerges as

a positive contributor to profitability in Indonesia, while equity financing shows a positive impact in Malaysia.

### ***Profitability***

Profitability is defined by the banks' ability to generate more revenue than its costs, which will result in net income. An indicator of bank performance, profitability reflects how bank operates within the given environment. Profitable banks help banks to maintain their stability. A study by Mohd Jaapar (2025) found that a rise in return on assets (ROA), a proxy for profitability, would enhance the viability of financial institutions by ensuring a steady stream of profits and a consistent performance. While Bouri (2019) found conventional banks were more profitable than the Islamic banks during the period of financial stability, a study by Ramlan and Adnan (2016) found the opposite, with Islamic banks being more profitable than conventional banks. Profitable banking sector act as a shield to against negative shocks and serves as an insurance against economic problem and financial issue. Islamic bank also prioritizes profitability while adhering to Shariah rules. Profits are important for a long-term sustainability of Islamic banks which allowing depositors, bankers and shareholders to enjoy returns on invested funds. Profitability is important because Islamic banks act as intermediaries and help in the transmission of monetary policies. Company with high and stable profitability usually don't need to adjust income to appear better because there is confidence in strong performance. However, company with low profits need to adjust income because low profitability draws attention from the company's owner and public which potentially impacting investment choice (Kusumastuti & Alam, 2019).

The profitability is often measured by using return on asset (ROA) ratio which is a common indicator for profitability of bank in relation to total asset. Return on assets (ROA) is an important indicator of the financial statements which have a variety of uses. The greater this ratio indicates better performance of banks (Buchory, 2015). Keeping cost under control significantly enhance a bank's financial performance (Ali et al., 2021). The banking business portrays banks as profit-oriented institutions, in which the profitability does not only contribute to the success of the banking sector, but the profitability in banks also serves as an indicator for bank being efficient in managing its operation (Abdeljawad et al., 2026; Maria & Hussain, 2026). Being profitable also increase the bank's financial stability, and enables bank to forecast for future financial distress (Fadoua, 2026; Muomaife et al., 2026).

### ***Operational Efficiency***

For a bank to make money, it must earn more money than it spends. Most of a bank's earnings come from service charges and interest collected on its assets, both of which are major sources of profit. Measuring the success of a bank can be done by looking at its operational efficiency, as well as its ability to diversify its revenues through non-interest income activities and cost management. In the banking industry, the operational efficiency shows how well a bank manage the operating expenses while maintaining the profitability. Essentially, operational efficiency shows how efficiently the bank uses the resources to generate the income which confirmed showing a strong link between operational efficiency and bank profitability. Banks which focus on keeping the operating cost as low as possible, are more likely to see the improvement in profitability. This ratio highlights the impact of effective management strategies on reducing the expenses an increase income. When a bank has high cost to income

ratio, it shows inefficiencies in managing operational cost which could lead to the financial losses. A study by Ali et al. (2021) revealed that reducing operational costs improves economic outcomes and benefit the organization overall. Buchory (2015) also found that operational efficiency has a positive effect on bank profitability. The same results were obtained by Hijriyani (2021) stating that the more efficient the bank's operations, the greater the potential for increased profitability. This leads to the first hypothesis:

H1: There is a significant relationship between operational efficiency and profitability of Islamic Bank in Malaysia

### ***Debt Ratio***

Capital structure is referred to how the company finances its operation by using a combination of equity and debt which is borrowed funds. Obuobi et al. (2020) explained that capital structure is important to balance these two sources of funding which showing how the companies use the fund to operate and by managing the fund can describe the way businesses blend debt and equity to meet the financial needs.

Samhan and Al-Khatib (2015) examined how capital structure affects banks performance in Malaysia which found that higher leverage meaning the use of more debt can lead to better profit efficiency for banks. An interesting study by Pradhan et al. (2017) found that an increase in short term debt to total assets leads to increase in bank profitability, but a negative relationship can be found between long term debt to total assets, total debt to total assets and debt to equity ratio. Both Abdelraouf (2026) and Ekinci and Poyraz (2019) also found negative relationship between debt ratio and bank profitability. This leads to the second hypothesis:

H2: There is a significant relationship between debt ratio and profitability of Islamic Bank in Malaysia

### ***Capital Adequacy Ratio (CAR)***

The Capital Adequacy Ratio (CAR) measures a bank's capital adequacy, which reflects its ability to support risk-bearing assets. According to Kusumastuti and Alam (2019), this ratio measures the bank's ability to absorb potential losses resulting from risky assets. Their study found that CAR rises, the bank's health improves because a higher capital ratio gives the bank more flexibility in distributing funds to profitable investment activities. They concluded that having more capital reserves increases the bank's ability to generate corporate profits, and a higher CAR leads to a higher return on assets (ROA), as the bank is able to better leverage its capital for beneficial investment.

A study by (Alnajjar, 2021) found that capital adequacy has a significant impact on Islamic banks' return on assets (ROA). The study highlighted that the positive coefficient value indicates that higher capitalization improves Islamic bank profitability in terms of ROA. This means that increasing capital adequacy improves Islamic banks' ability to generate income from assets. However, Setiawan (2021) found that increasing the capital ratio to risk-weighted assets (CAR) reduces profits for Islamic banks, indicating that raising the capital ratio is linked with increased financing risk, which lowers these banks' profits. An increase in CAR shows that the bank is working to improve its financing capacity and prepare for potential financing issues, which affects Islamic banks' long-term profits. This leads to the third hypothesis:

H3: There is a significant relationship between capital adequacy ratio and profitability of Islamic Bank in Malaysia

## Methodology

To examine the relationship between operational efficiency, debt ratio, capital adequacy ratio, and the profitability of 11 Islamic banks in Malaysia from 2014 to 2023 ( $N = 11, T = 10, N \times T = 110$  observations), this study employs panel data analysis. Estimating banking data requires addressing specific statistical challenges, notably bank heterogeneity and complex error structures. The subsection below justifies the adoption of Panel Estimated Generalized Least Squares (EGLS) with cross-section weights over alternative panel approaches.

The Pooled OLS model assumes that the intercept and slope coefficients are constant across all cross-sections and time periods. It treats all 110 observations as a single, homogenous dataset, thereby ignoring the panel structure of the data. In banking studies, this assumption is severely flawed. Islamic banks in Malaysia differ inherently in terms of asset size, management quality, governance, and market share. By ignoring these unobserved bank-specific characteristics, Pooled OLS suffers from omitted variable bias. Consequently, the resulting parameters are inefficient, and the standard errors are biased, which can lead to highly misleading statistical inferences. Therefore, a model that explicitly accounts for individual panel effects is required. While the standard Fixed Effects (FE) and Random Effects (RE) models control unobserved individual bank heterogeneity, they rely on ordinary least squares estimation frameworks that assume homoscedasticity (constant variance of error terms) and the absence of serial correlation. Financial data from commercial and Islamic banks typically violate these assumptions. Because banks operate under diverse risk profiles, the variance of the error terms often differs across institutions (heteroscedasticity). Furthermore, a bank's financial performance in a given year is naturally linked to its performance in previous years (autocorrelation). If standard FE or RE models are used in the presence of these violations, the resulting  $t$ -statistics and  $p$ -values become invalid, risking Type I or Type II errors during hypothesis testing.

To overcome the limitations of OLS-based estimators, this study utilizes Panel Estimated Generalized Least Squares (EGLS). Unlike standard regression models that treat all error terms equally, EGLS transforms the underlying data by incorporating the structure of the variance-covariance matrix of the disturbances. By modeling the error terms directly, Panel EGLS deflates observations with large variances and inflates those with small variances. This structural adjustment eliminates the distorting impacts of heteroscedasticity and serial correlation, ensuring that the estimated regression coefficients achieve the Best Linear Unbiased Estimator (BLUE) status.

Within the Panel EGLS framework, cross-section weights are applied to address cross-sectional heteroscedasticity. The Islamic banking landscape in Malaysia is highly asymmetrical, consisting of massive, well-capitalized domestic anchors (such as Maybank Islamic and CIMB Islamic) operating alongside smaller foreign subsidiaries or specialized institutions. This vast disparity in operational scale inevitably leads to varying degrees of volatility in financial metrics like profitability and capital adequacy. Cross-section weights account for this by utilizing a feasible generalized least squares (FGLS) transformation that allows for presence of

varying variances across the 11 banks. By weighting each cross-section inversely proportional to its error variance, the model yields robust, efficient, and statistically reliable parameters to accurately interpret the drivers of Islamic bank profitability.

Table 1 shows the variables and measurements used for dependent and independent variables:

**Table 1: Variables and Measurement**

| Variable               | Code | Measurement                                               |
|------------------------|------|-----------------------------------------------------------|
| Profitability          | ROA  | Profit Before Tax Average Total Assets<br>×100%           |
| Operational Efficiency | OPE  | Total operating expenses / Total revenue                  |
| Debt Ratio             | DBT  | Total liabilities / total asset                           |
| Capital Adequacy Ratio | CAR  | (Bank capital) / (Total Risk – Weighted<br>Assets) x 100% |

By using multiple regression analysis with the Panel EGLS with cross section weights the research aims to provide a detail analysis of the factors influencing the performance of Islamic banking in Malaysia which contributing to the literature on Islamic finance and offering valuable insights for stakeholders. The following is the regression equation:

$$ROA = \beta_0 + \beta_1 * OPE + \beta_2 * DBT + \beta_3 * CAR + \epsilon$$

Where:

ROA = The Profitability of Islamic Banking in Malaysia is known as the dependent variable.

OPE= The Operational Efficiency is known as the independent variable.

DBT = The Debt ratio is known as independent variable.

CAR = The Capital Adequacy Ratio is known as independent variable.

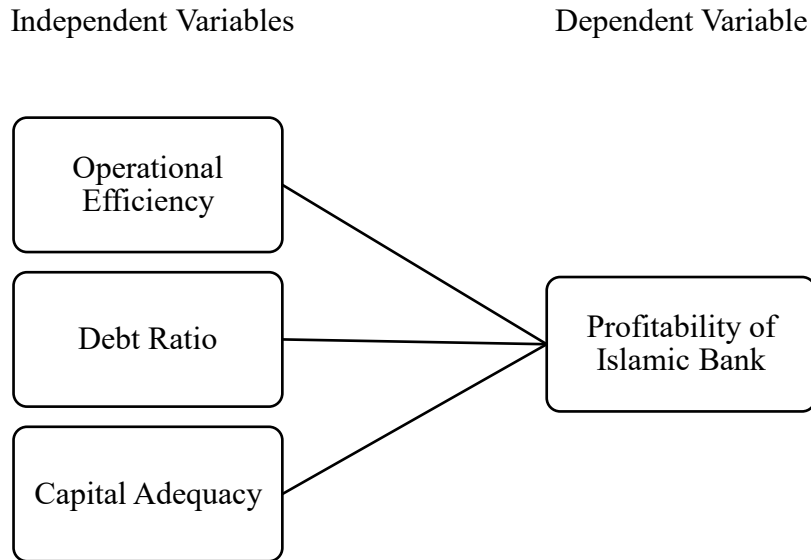
$\beta_0$  = Intercept which represents the value of the dependent variable when all independent variable is zero.

$\beta_1$ ,  $\beta_2$  and  $\beta_3$  = Coefficients of the independent variable which represent the change in the dependent variable for a one-unit change in each independent variable, holding other variables constant.

$\epsilon$  = Error term which this term captures the variability in the dependent variable that is not explained by the independent variables.

The equation  $ROA = \beta_0 + \beta_1 * OPE + \beta_2 * DBT + \beta_3 * CAR + \epsilon$  represents a multiple linear regression model. ROA stands for the profitability of Islamic banking in Malaysia which is the dependent variable. OPE, DBT and CAR are independent variables that represent Operational Efficiency, Debt ratio and Capital adequacy ratio. The coefficient  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  represent the relationship between the dependent variable and independent variables. These coefficients indicate the change in profitability for a one-unit change in each independent variable while keeping other variables constant. The error term  $\epsilon$  captures the variability in the dependent variable that is not explained by the independent variables.

## Research Framework



**Figure 1: Research Framework**

The above Figure 1 illustrates the relationship between operational efficiency, debt ratio and capital adequacy ratio on profitability of Islamic bank.

### *Data and Sources*

This study uses data from annual report of Islamic banks in Malaysia from 2014 to with data collected each year for 11 Islamic banks in Malaysia as stated in Table 2 below.

**Table 2: Data Sample**

| Sample List                    |                                                                                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Affin Islamic Bank Berhad      | <a href="https://affin.listedcompany.com/ar.html">https://affin.listedcompany.com/ar.html</a>                                                                                                                                                         |
| Ambank Islamic Bank Berhad     | <a href="https://www.ambankgroup.com/investor-relations/annual-report/fy2023">https://www.ambankgroup.com/investor-relations/annual-report/fy2023</a>                                                                                                 |
| Bank Islam Malaysia Berhad     | <a href="https://bimb.irplc.com/investor-relations/interactiveAR2023/">https://bimb.irplc.com/investor-relations/interactiveAR2023/</a>                                                                                                               |
| Bank Muamalat Malaysia Berhad  | <a href="https://www.muamalat.com.my/investor-relations/annual-report/">https://www.muamalat.com.my/investor-relations/annual-report/</a>                                                                                                             |
| CIMB Islamic Bank Berhad       | <a href="https://www.cimb.com/en/investor-relations/annual-reports-listing.html">https://www.cimb.com/en/investor-relations/annual-reports-listing.html</a>                                                                                           |
| Hong Leong Islamic Bank Berhad | <a href="https://www.hlbislamic.com.my/en/personal-i/about-us/investor-relations/annual-and-quarterly-financial-reports.html">https://www.hlbislamic.com.my/en/personal-i/about-us/investor-relations/annual-and-quarterly-financial-reports.html</a> |

|                             |                                                                                                                                                                                                                                               |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kuwait Finance House        | <a href="https://www.kfh.com.my/malaysia/personal/reports.html">https://www.kfh.com.my/malaysia/personal/reports.html</a>                                                                                                                     |
| Maybank Islamic Bank Berhad | <a href="https://www.maybank.com/en/investor-relations/financial-overview/annual-reports.page">https://www.maybank.com/en/investor-relations/financial-overview/annual-reports.page</a>                                                       |
| MBSB Bank Berhad            | <a href="https://www.mbsb.com/mbsbbank/corporate/about-us/financial-statements">https://www.mbsb.com/mbsbbank/corporate/about-us/financial-statements</a>                                                                                     |
| Public Islamic Bank Berhad  | <a href="https://www.publicbankgroup.com/investor-relations/annual-reports/">https://www.publicbankgroup.com/investor-relations/annual-reports/</a>                                                                                           |
| RHB Islamic Bank Berhad     | <a href="https://www.rhbgroup.com/investor-relations/financial-reports/annual-reports/rhb-islamic-bank-berhad/index.html">https://www.rhbgroup.com/investor-relations/financial-reports/annual-reports/rhb-islamic-bank-berhad/index.html</a> |

Source: Data processed by researchers, 2025

110 samples were observed intended to provide a clear representation of the financial profitability and performance of Islamic banks in Malaysia over the selected years. These banks are the focus of the study which covering financial activities and performance during ten-years period. Data for the study came from the annual report each bank for the selected period which ensuring complete coverage of the financial activities and performance of these banks. This wide coverage allows a detailed study of the factors that effecting profitability in Malaysia's Islamic banking sector and provides important insight into its development. Using panel analysis, it examines trends over time. Multiple regression analysis with Panel EGLS (cross-section weights) assesses the impact of operational efficiency, debt ratio and capital adequacy ratio on the profitability of Islamic banks.

## Findings and Discussion

The descriptive statistics presented in Table 1 provide key insights into the financial positioning and operational profiles of the sampled banks. The Capital Adequacy Ratio (CAR) exhibits the highest mean value (Mean=19.14, SD=5.472), indicating that the institutions maintain a robust capital base capable of absorbing potential losses and safeguarding financial stability. However, the substantial standard deviation highlights notable variability in capital buffer management across the sample. This dispersion is likely driven by differing risk appetites, diverse regulatory requirements, and distinct strategic focuses among the institutions. Conversely, the Return on Assets (ROA) shows a mean of 1.006 (SD=0.563), demonstrating that the banks generate modest but steady returns relative to their total asset base.

Regarding operational and leverage metrics, the Operational Efficiency ratio (OPE) yields a relatively low mean of 0.368 (SD=0.557), suggesting that the banks generally maintain tight control over operating expenses relative to income. Meanwhile, the Debt ratio (DBT) features a high mean of 0.869, indicating that a significant portion of the banks' asset portfolios is financed through leverage. Despite this high reliance on debt, the extremely low standard deviation (SD=0.043) implies highly consistent leverage structures across the sampled institutions. This uniformity suggests that most banks adhere to a synchronized financial policy and structural framework regarding debt utilization.

**Table 3: Descriptive Statistics**

| Variables | Mean  | SD    | Max    | Min     |
|-----------|-------|-------|--------|---------|
| ROA       | 1.006 | 0.563 | 2.4759 | -2.0469 |
| OPE       | 0.368 | 0.557 | 2.2885 | 0.0032  |
| DBT       | 0.869 | 0.043 | 0.9437 | 0.7644  |
| CAR       | 19.14 | 5.472 | 42.198 | 13.3550 |

Based on the data presented in Table 3, the correlation analysis reveals distinct trade-offs between profitability, capital stability, and operational metrics. Profitability (ROA) exhibits a weak, statistically insignificant negative correlation with operational efficiency ( $r = -0.054$ ) and a weak, statistically significant positive correlation with leverage ( $r = 0.226$ ). This indicates that while higher debt levels are marginally associated with increased profitability, neither operational efficiency nor debt acts as a primary driver of financial performance. Concurrently, debt and operational efficiency share a weak positive correlation ( $r = 0.240$ ). In Islamic banking, this dynamic typically emerges when Shariah-compliant financing is strategically channeled into process optimization, technological upgrades, or capital expansions that successfully drive efficiency gains.

In contrast, the Capital Adequacy Ratio (CAR) demonstrates a consistently inverse relationship across all variables, correlating moderately negatively with ROA ( $r = -0.328$ ), weakly negatively with OPE ( $r = -0.132$ ), and strongly negatively with DBT ( $r = -0.835$ ). These patterns indicate that heightened capital adequacy is systematically associated with depressed profitability, lower efficiency, and substantially reduced debt ratios. From a strategic perspective, these findings reflect a conservative, stability-first financial approach. The institution clearly prioritizes the maintenance of robust capital buffers and risk mitigation over the maximization of operational output or short-term financial returns.

**Table 4: Correlation Analysis**

| Variables | ROA    | OPE    | DBT    | CAR |
|-----------|--------|--------|--------|-----|
| ROA       | 1      |        |        |     |
| OPE       | -0.054 | 1      |        |     |
| DBT       | 0.226  | 0.240  | 1      |     |
| CAR       | -0.328 | -0.132 | -0.835 | 1   |

### ***Operational Efficiency (OPE) and Profitability***

The regression analysis results presented in Table 4 reveal a negative and statistically significant relationship between Operational Efficiency (OPE) and Return on Assets (ROA) at the 5% significance level ( $\beta = -0.085$ ,  $t = -2.483$ ,  $p = 0.015$ ). Because OPE is measured as a cost-to-income ratio, this negative coefficient implies that an increase in relative operating expenses reflects deteriorating operational efficiency, which subsequently compresses bank profitability. This finding is consistent with prior literature emphasizing that stringent cost management and operational control are critical drivers of banking profitability (Ali et al., 2021).

### ***Debt Ratio (DBT) and Profitability***

Regarding leverage, the Debt Ratio (DBT) exhibits a strong positive and statistically highly significant relationship with ROA at the 1% significance level ( $\beta = 1.577, t = 10.618, p = 0.000$ ). This substantial positive coefficient indicates that the strategic deployment of debt financing significantly enhances the profitability of Islamic banks. Optimally leveraging liabilities expands the capital pool available for revenue-generating financing and investment activities, thereby yielding economies of scale. This outcome aligns with previous empirical evidence suggesting that prudent leverage utilization acts as a catalyst for financial performance (Samhan et al., 2015).

### ***Capital Adequacy Ratio (CAR) and Profitability***

Conversely, the Capital Adequacy Ratio (CAR) demonstrates a negative and statistically significant relationship with ROA at the 1% significance level ( $\beta = -0.021, t = -2.718, p = 0.007$ ). This negative coefficient indicates that maintaining excessively high capital buffers tends to diminish asset profitability. From an operational standpoint, holding surplus regulatory capital implies that a larger portion of funds is tied up as a safety cushion rather than being deployed into active, income-generating financing portfolios. This result corroborates the empirical findings of Al-Najjar and Abdullah Othman (2021) as well as Setiawan (2021), who argued that over-capitalization can impose opportunity costs that constrain a bank's capacity to maximize returns.

The regression analysis is presented in Table 5.

**Table 5: Regression Analysis**

| <b>Variables</b> | <b>Coefficient</b> | <b>Std. Error</b> | <b>t-Statistic</b> | <b>Sig.</b> |
|------------------|--------------------|-------------------|--------------------|-------------|
| OPE              | -0.085             | 0.034             | -2.483             | 0.015       |
| DBT              | 1.577              | 0.149             | 10.618             | 0.000       |
| CAR              | -0.021             | 0.008             | -2.718             | 0.007       |

Dependent Variable: ROA

### **Conclusion**

This study investigated the empirical impact of operational efficiency (OPE), leverage (DBT), and capital adequacy (CAR) on the profitability (ROA) of Islamic banks in Malaysia from 2014 to 2023. By examining these core internal financial indicators through a rigorous regression framework, our findings reveal a nuanced set of trade-offs inherent in contemporary Islamic bank management. The empirical analysis demonstrates that leverage serves as a powerful catalyst for asset returns, showing a highly significant positive relationship with profitability. This outcome strongly supports the Pecking Order Theory, illustrating that when internal funds are constrained, the strategic deployment of Shariah-compliant debt financing enables banks to capitalize on productive, income-generating activities. Conversely, both operational efficiencies, measured as a cost-to-income ratio and capital adequacy exhibit significant negative relationships with ROA. The negative impact of OPE underscores a fundamental structural reality: elevated operating expenses directly erode bottom-line profitability, highlighting the critical role of stringent cost control. Similarly, the inverse relationship

between CAR and ROA indicates that while holding substantial capital buffers safeguards institutional solvency, it imposes an explicit opportunity cost. Over-capitalization effectively traps valuable liquidity that would otherwise be deployed into profitable financing portfolios, ultimately diluting overall asset returns. Taken together, these insights offer practical guidance for bank executives, regulators, and investors navigating the balance between growth, efficiency, and risk mitigation. Based on these empirical insights, the following strategic recommendations are proposed to enhance long-term financial performance while maintaining structural stability:

### ***Optimize Shariah-Compliant Leverage***

Given that the debt ratio emerged as the most substantial positive driver of profitability, bank executives should deliberately manage their financing structures to maintain optimal leverage levels without exceeding prudent risk thresholds. Simultaneously, financial regulators should foster innovation in Islamic debt and liquidity instruments. Such instruments must balance equity-based risk-sharing principles with profitability potential, aligning with broader empirical evidence regarding debt-financed growth in financial institutions (Kusumastuti & Alam, 2019).

### ***Enhance Operational Cost Discipline***

To counteract the profitability-compressing effects of a high cost-to-income ratio, Islamic banks must prioritize operational optimization. Management should accelerate digital transformation initiatives, streamline back-office workflows, and enhance staff productivity to reduce unnecessary overhead. Implementing these technological efficiencies allows institutions to lower operating expenses without compromising Shariah compliance or service quality, reinforcing the established financial maxim that operational discipline is the foundation of sustainable profitability (Ali et al., 2021).

### ***Calibrate Capital Buffers Strategically***

To address the negative impact of high capital requirements on asset returns, Islamic banks must move away from passive capital hoarding toward active capital allocation. Financial managers need to dynamically calibrate their capital structures, establishing an equilibrium that satisfies stringent regulatory safety requirements while maximizing the deployment of surplus funds into high-yielding, Shariah-compliant investments. This balanced approach ensures that capital optimization actively supports both institutional resilience and shareholder value (Al-Najjar & Abdullah Othman, 2021).

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