Al Tijarah: Vol. 11 No. 1, June 2025 (1-12)
p-ISSN: 2460-4089 e-ISSN: 2528-2948
Available at: http://ejournal.unida.gontor.ac.id/index.php/altijarah

Capital structure, efficiency, and profitability: key drivers of Islamic banking's financial stability in ASEAN

Pungky Lela Saputri
Faculty of Economics and Business, Universitas Islam Sultan Agung, Jl. Kaligawe Raya No.Km.4, Terboyo Kulon, Kec. Genuk, Kota Semarang, Jawa Tengah 50112, Indonesia.
pungkylelasaputri@unissula.ac.id
Hanif Ahmadi
Faculty of Economics and Business, Universitas Islam Sultan Agung, Jl. Kaligawe Raya No.Km.4, Terboyo Kulon, Kec. Genuk, Kota Semarang, Jawa Tengah 50112, Indonesia.
hanifahmadi@unissula.ac.id
Tika Mutiani
Faculty of Islamic Economics and Business, Universitas Islam Negeri Walisongo, Jl. Walisongo No. 3-5, Tambakaji, Kec. Ngaliyan, Kota Semarang, Jawa Tengah 50185, Indonesia.
mutianitika3@gmail.com

Abstract

This study examines the impact of capital structure, operational efficiency, and profitability on the financial stability of Islamic banks in ASEAN from 2020 to 2024. Using panel data regression analysis, the research investigates how the Debt to Equity Ratio (DER), Operational Efficiency Ratio (OER), and Return on Assets (ROA) influence financial stability, measured by the Z-Score. The findings reveal that DER has a negative and significant effect on financial stability, indicating that excessive reliance on debt increases financial risk and reduces the resilience of Islamic banks. Similarly, OER negatively affects financial stability, suggesting that higher operational costs and inefficiencies weaken financial performance. In contrast, ROA positively and significantly contributes to financial stability, as higher profitability strengthens banks' financial flexibility and ability to absorb economic shocks. These results highlight the importance of maintaining an optimal capital structure, improving cost efficiency, and enhancing profitability to ensure sustainable financial stability. The study provides practical implications for policymakers and Islamic bank managers, emphasizing the need for prudent financial management, technological advancements in cost control, and innovative Shariah-compliant investment strategies to enhance stability in the Islamic banking sector.

Keywords: *Financial Stability, Capital Structure, Operational Efficiency, Profitability, Islamic Banks*

A. INTRODUCTION

Financial stability is a fundamental pillar of a resilient banking system, maintaining the efficient operation of financial institutions and their ability to withstand economic shocks (Karem & Azzahra, 2024). In the context of ASEAN, the growth of Islamic banking has contributed significantly to enhancing financial system stability by promoting risk-sharing mechanisms, asset-backed financing, and ethical investment principles. According to the Islamic Financial Service Board (IFSB, 2024), the Islamic banking sector in key ASEAN countries such as Malaysia, Indonesia, and Brunei has shown steady asset growth rates between 8% to 10% annually, reinforcing the region's financial resilience. Furthermore, Islamic banks' emphasis on real economic activities and avoidance of speculative transactions has been associated with greater stability during periods of financial crises (Abduh & Omar, 2012)

In the ASEAN region, Islamic banks play an increasingly vital role in the financial landscape, offering Shariah-compliant alternatives to conventional banking. The stability of these institutions is not

only crucial for their own survival but also for the broader economic sustainability of the region (Dahmani & Makram, 2024). However, Islamic banks operate under unique financial principles, including principles like risk-sharing, the ban on interest, and requirement for ethical investments which differentiate them from conventional banks. While these principles promote financial discipline and ethical banking, they also introduce challenges in maintaining stability, particularly during economic downturns (Saputri et al., 2020).

The COVID-19 pandemic (2020-2021) and subsequent global economic uncertainties have tested the resilience of ASEAN's Islamic banks (Banna & Alam, 2021). Many institutions faced liquidity pressures, declining profitability, and increased credit risks due to disruptions in business activities. Unlike conventional banks, Islamic banks rely on profit-and-loss sharing mechanisms, making them more exposed to economic volatility. Additionally, the absence of interest-based instruments limits their ability to engage in conventional liquidity management strategies. Despite these challenges, some Islamic banks in ASEAN have demonstrated resilience, supported by strong regulatory frameworks and government interventions. Countries like Malaysia and Indonesia have implemented robust policies to enhance liquidity support and risk management in the Islamic banking sector, helping to stabilize financial conditions (Suripto et al., 2023).

One widely accepted measure of financial stability is the Z-Score, which assesses the risk of insolvency by capturing the relationship between profitability, leverage, and volatility (Rizki Rizki et al., 2025). Data from Indonesia-the largest Islamic banking market in ASEAN-indicates substantial growth in Islamic finance assets. As of December 2023, Indonesia's Islamic finance industry assets reached approximately USD 152.4 billion, with the sharia banking sector contributing around IDR 892 trillion (approximately USD 57.6 billion) (www.ojk.go.id).

The financial resilience of Islamic banks in the ASEAN region between 2020 and 2024 has shown significant developments, reflecting both growth and areas requiring attention (Asif & Nasir, 2024). A key indicator of this stability is the Z-Score, which measures the likelihood of a bank's insolvency; higher Z-Scores indicate greater stability. While specific Z-Score data for all ASEAN Islamic banks over this period is limited, available studies and reports provide valuable insights (Rizki Rizki et al., 2025). An analysis of Islamic banks' stability in Southeast Asia and Gulf Cooperation Council (GCC) countries from 2013 to 2020 revealed that factors like assets, non-performing financing (NPF), gross domestic product (GDP), and return on assets (ROA) have a significant impact on bank stability in Indonesia and Malaysia (Rani et al., 2024). In Indonesia, assets, NPF, and GDP were significant factors (Maritsa & Widarjono, 2021), while in Malaysia, ROA, assets, and GDP played crucial roles (ZAHRA et al., 2021).

Despite the growing significance of Islamic banking in ASEAN, there is still a lack of extensive research on the factors influencing financial stability in this sector. Among the key financial indicators, capital structure, operational efficiency, and profirability play a crucial role in shaping stability (Yilmaz et al., 2024).

Capital structure, operational efficiency, and profitability represent three critical internal determinants of financial stability in Islamic banking institutions, each reflecting a unique aspect of financial performance and resilience. The capital structure, as measured by the Debt-to-Equity Ratio (DER), reflects how much a bank depends on external debt financing relative to its internal equity. In Islamic banks, the use of debt instruments is more restricted due to Shariah principles that discourage interest-bearing liabilities. However, the practical realities of competitive banking environments often compel Islamic banks to use hybrid structures that resemble conventional leverage mechanisms. A high DER indicates significant financial leverage, which, while potentially amplifying returns, also increases exposure to financial shocks and liquidity pressures, especially during economic downturns. Therefore, understanding the capital structure of Islamic banks is crucial to assess how well they maintain stability while adhering to religious compliance and financial discipline (F. Anggraini et al., 2024; Atang et al., 2022; Pinanda & Suraya, 2024; Yoyo & Priyowidodo, 2024).

Operational efficiency, typically measured by the Operational Efficiency Ratio (OER), is equally vital in determining a bank's ability to manage resources effectively and sustain profitability. OER reflects how much of a bank's income is consumed by operating expenses; a lower ratio indicates greater efficiency. For Islamic banks, operational efficiency involves unique challenges, including compliance with Shariah governance, contract structuring, and more complex risk management mechanisms compared to their conventional counterparts. Inefficiency in operations can erode the bank's profit margins and impair service delivery, ultimately leading to reduced stakeholder trust. In contrast, effective cost management not only boosts profitability but also reinforces the institution's long-term sustainability by improving liquidity, creditworthiness, and customer satisfaction. Thus, evaluating OER

in the Islamic banking context offers insights into managerial performance, strategic agility, and institutional resilience (F. Anggraini et al., 2024; P. Anggraini et al., 2024; Bokiu et al., 2023).

Profitability, as measured by Return on Assets (ROA), is another central indicator of financial strength and operational effectiveness. ROA captures how well a bank utilizes its assets to generate profits, which in the case of Islamic banking must stem from permissible sources such as trade, leasing, and partnership-based contracts. Unlike conventional banks that rely on interest-bearing loans for income, Islamic banks use profit-and-loss sharing (PLS) instruments like mudharabah and musharakah, making income streams less predictable and risk-sharing more prominent. As such, high profitability not only demonstrates financial strength but also reflects the success of risk-sharing mechanisms and ethical financial practices. On the other hand, declining profitability may indicate inefficiencies, poor asset utilization, or weakening market competitiveness, thereby threatening financial stability. Since profitability provides a cushion against financial stress, it becomes a key determinant of whether Islamic banks can absorb shocks and maintain solvency in challenging times (Al Salamat & Al-Kharouf, 2021; Najam et al., 2022; Nurhikmah & Rahim, 2021; Oktoviyanti & Murwaningsari, 2023; Zeqiraj et al., 2021).

Although numerous studies have explored the role of financial indicators in conventional banking systems, relatively few have examined these dynamics specifically within Islamic banks, particularly in the ASEAN region. Prior research in Islamic banking has generally emphasized macroprudential concerns or system-wide risk exposures, without adequately analyzing micro-level variables like DER, OER, and ROA. For example, the impact of DER is underexamined in light of the equity-based financing approach promoted in Islamic banking, where Shariah law discourages riba (interest) and encourages more stable, partnership-oriented capital structures (Hasan & Dridi, 2010). Similarly, while operational efficiency is recognized as a performance driver, its direct effect on Islamic banks' financial stability has been inadequately explored (Ariss, 2010). In terms of profitability, conventional metrics are often applied without considering the unique income structures of Islamic banks, which require different risk-sharing and revenue recognition mechanisms (Mollah et al., 2017). This gap in the literature presents a critical opportunity to empirically assess how these internal factors contribute to financial stability within Islamic banking models operating in diverse economic and regulatory environments across ASEAN.

Therefore, this study aims to fill the existing research gap by analyzing the impact of DER, OER, and ROA on the financial stability of Islamic banks across ASEAN countries from 2020 to 2024, using the Z-score as a composite indicator of stability. By examining these internal financial indicators in the context of Shariah-compliant operations, this study seeks to provide empirical insights into the dynamics of resilience within Islamic financial institutions. The findings are expected to guide both practitioners and regulators in strengthening governance structures, improving operational models, and formulating regulatory frameworks that support long-term stability. Furthermore, the study contributes to the theoretical development of Islamic financial literature by integrating financial management concepts with Shariah-based principles. In practice, it offers actionable recommendations for Islamic banks to enhance capital structure management, streamline operations, and optimize profitability, ensuring they remain resilient in an increasingly complex financial landscape.

B. LITERATURE REVIEW

Financial Stability

Financial stability refers to a condition in which the financial system—encompassing financial institutions, markets, and infrastructure—functions efficiently, remains resilient to shocks, and continues to support sustainable economic growth. A stable financial system can absorb both internal and external shocks, thereby maintaining the flow of credit, the integrity of payment mechanisms, and the confidence of investors and consumers. It serves as a foundation for macroeconomic stability and development, particularly in emerging economies where the robustness of financial institutions significantly affects economic resilience (Zeqiraj et al., 2021; Čihák & Hesse, 2010).

According to the International Monetary Fund (IMF), financial stability implies that financial institutions are able to efficiently allocate resources, assess and manage financial risks, and maintain their ability to perform key economic functions even under adverse conditions. A well-functioning financial system promotes investor trust, prevents systemic risks, and helps mitigate the transmission of financial disturbances across markets and institutions (Arnone et al., 2007). This makes financial stability a multidimensional concept, integrating solvency, liquidity, profitability, operational efficiency, and risk management capacities of financial institutions, including Islamic banks.

In the context of Islamic banking, financial stability is influenced by both internal financial indicators and adherence to Shariah principles. Key internal metrics often include the Debt to Equity Ratio (DER), Operational Efficiency Ratio (OER), and Return on Assets (ROA), which collectively provide insights into a bank's capital structure, cost management, and profitability. These ratios are not only indicators of financial health at the institutional level but also serve as predictors of systemic stability in the broader financial sector. Particularly in the ASEAN region, where Islamic banking is expanding, understanding the interplay of these ratios with financial stability is crucial to designing sound regulatory frameworks and resilient institutional models.

Debt to Equity Ratio (DER)

The Debt to Equity Ratio (DER) is a widely used financial ratio that reflects the proportion of a company's financing that comes from debt relative to shareholders' equity. This ratio is central to assessing a firm's capital structure and its reliance on borrowed funds to finance operations and growth (Savestra et al., 2021). In essence, DER is an indicator of financial leverage and is often interpreted as a proxy for risk exposure. A high DER signals that the firm is more dependent on external creditors, while a lower DER suggests a stronger equity base and potentially lower financial risk (Nukala & Prasada Rao, 2021).

For Islamic banks, the interpretation of DER carries additional implications due to the prohibition of interest-based financing under Shariah law. Although Islamic financial institutions generally avoid conventional debt instruments, they may still use financial structures that mimic leverage, such as sukuk (Islamic bonds) or certain trade-based contracts like murabahah with deferred payments. Consequently, understanding DER in Islamic banks requires contextualization within both the regulatory framework and Shariah governance. High DER in this context could imply either a deviation from equity-based ideals or an operational necessity to remain competitive in dual-banking environments (Hasan & Dridi, 2010; Mollah et al., 2017).

From a financial stability perspective, a high DER reflects heightened vulnerability. While financial leverage can enhance returns during boom periods, it also magnifies losses during downturns. Firms with high debt obligations face greater pressure to meet interest payments and principal repayments, especially under conditions of declining revenues or rising interest rates (Kalash, 2023). These obligations can constrain cash flow and liquidity, increasing the probability of default or financial distress. In contrast, companies with lower DER ratios often demonstrate more prudent financial management and greater resilience to economic volatility. Empirical studies have shown that institutions with moderate leverage ratios tend to be more stable, as they maintain a healthier balance between risk-taking and solvency (Franquesa & Vera, 2021; Beck et al., 2013).

For Islamic banks operating in volatile emerging markets like ASEAN countries, maintaining an optimal DER is crucial not only for financial performance but also for institutional credibility and regulatory compliance. Stakeholders, including regulators, investors, and Shariah supervisory boards, closely monitor DER as part of the bank's overall financial profile. A balanced DER supports capital adequacy, aligns with maqasid al-shariah (objectives of Islamic law), and enhances the bank's ability to withstand external shocks. Therefore, in this study, DER is hypothesized to have a positive influence on financial stability, with an optimal ratio reflecting prudent risk management and effective capital structuring.

H1: Debt to Equity Ratio (DER) positively affects financial stability.

Operational Efficiency Ratio (OER)

OER is a financial indicator that measures how efficiently a company uses its resources to produce revenue (Arbelo et al., 2021). It is calculated by dividing operating expenses, including the cost of goods sold (COGS), by net sales.

A lower OER indicates higher efficiency, signifying that a company is spending less to achieve a given level of sales (Prawira & Anwar, 2024). Conversely, a higher OER suggests less efficiency, implying that a larger portion of revenue is consumed by operating costs. This ratio plays a key role in evaluating a company's operational performance and is commonly used alongside other efficiency ratios to offer a holistic picture of its financial condition.

The relationship between the Operational Efficiency Ratio and financial stability is significant. A lower OER reflects prudent cost management and effective resource utilization, which can lead to enhanced profitability and stronger cash flows. These elements enhance a company's capacity to fulfil its financial commitments, pursue growth opportunities, and endure economic challenge, thereby

bolstering financial stability. For instance, a study on the impact of operational efficiency on financial performance found that efficient firms are better positioned to achieve higher profit margins and maintain financial sustainability (F. Anggraini et al., 2024; Bokiu et al., 2023).
H2: OER negatively affects financial stability

Return on Assets (ROA)

Return on Assets (ROA) is an important indicator that assess how efficiently a company generates profit it relation to its total assets (Saputri & Zamrudi, 2023). It is determined by dividing net income by total assets.

This ratio indicates how efficiently a company utilizes its assets to produce earnings. A higher ROA signifies greater efficiency in asset utilization, reflecting effective management and potentially leading to increased profitability (Nugroho & Anisa, 2018). On the other hand, a lower ROA could indicate inefficient use of assets or reduced profit margins. It's important to note that ROA can vary significantly across industries; therefore, comparisons are most meaningful among companies within the same sector (Pratama).

The relationship between ROA and financial stability is significant. A higher ROA signifies that a company is effectively generating earnings from its assets, strengthening its capacity to meet financial responsibilities, invest in expansion, and navigate economic challenges. This efficiency in asset utilization contributes to a stronger financial position and reduces the risk of insolvency. For instance, companies with higher ROA are better equipped to handle financial stress, as they can generate more income relative to their asset base (Al Salamat & Al-Kharouf, 2021; Najam et al., 2022; Nurhikmah & Rahim, 2021; Oktoviyanti & Etty Murwaningsari, 2023; Zeqiraj et al., 2021).
H3: ROA positively affects financial stability.

C. METHODOLOGY OF RESEARCH

This study adopts a quantitative research method to analyze the effect of Debt to Equity Ratio (DER), Operational Efficiency Ratio (OER), and Return on Assets (ROA) on financial stability in Islamic banks across ASEAN. This analysis employs multiple linear regression to assess the relationship between the independent variables and the dependent variable -financial stability- as represented by the Z-score. The panel data regression approach is applied, considering both cross-sectional and time-series dimensions of the data collected from multiple Islamic banks over several periods.

The population of this study consists of all Islamic banks operating in the Southeast Asian region during the period 2020-2024. The sample selection follows specific criteria to ensure data availability and consistency. In total, there are 33 Islamic banks in Southeast Asia. However, 14 Islamic banks did not regularly publish their financial statements between 2018 and 2022. Consequently, the final sample for this study comprises 19 Islamic banks from Indonesia, Malaysia, Brunei Darussalam, and Vietnam.

To analyze the relationship between DER, OER, ROA, on financial stability (Z-Score), the following multiple linear regression model is used:

$$Zi = \beta 0 + \beta 1 DERi + \beta 2 OERi + \beta 3 ROAi + \varepsilon i$$

Since the study involves panel data, appropriate estimation techniques such as Common Effect Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM) will be tested using the Hausman Test to determine the best-fit model. Diagnostic tests will also be conducted, including normality tests, multicollinearity tests, heteroscedasticity tests, and autocorrelation tests, to ensure the validity of the regression model.

D. RESULT AND DISCUSSION

Descriptive Statistics

The descriptive statistics table provides an overview of the key financial indicators for Islamic banks in ASEAN. The Z-Score, which measures financial stability, has a high mean (112.79) but also significant variability (Std. Dev. = 143.66), indicating that some banks are highly stable while others are more vulnerable. The Debt to Equity Ratio (DER) varies widely (0.05 to 23.07), suggesting differences in capital structures among banks. The Operational Efficiency Ratio (OER) has a mean of 0.78, with some banks showing inefficiency (Max = 2.03). Lastly, the Return on Assets (ROA), averaging

1.5% , shows that while some banks are profitable, others experienced losses (Min = -0.067), reflecting differences in financial performance.

Table 1. Descriptive Statistics

Variable	N	Mean	Std. Dev.	Min	Q1 (25%)	Median (50%)	Q3 (75%)	Max
Z-Score (Financial Stability)	95	112.79	143.66	4.43	24.95	71.99	106.30	779.78
Debt to Equity Ratio (DER)	95	7.33	5.67	0.05	2.04	7.36	10.59	23.07
Operational Efficiency Ratio (OER)	95	0.78	0.28	0.31	0.60	0.80	0.95	2.03
Return on Assets (ROA)	95	0.015	0.027	-0.067	0.005	0.012	0.018	0.13

Source: Secondary Data, processed (2025)

Regression Model Selection Tests

In the process of data testing, choosing the most appropriate model for the panel data regression equation is crucial. This selection requires several tests, including the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test.

Table 2. Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.655415	(4,12)	0.0168
Cross-section Chi-square	18.736018	4	0.0009

Source: Secondary Data, processed (2025)

Based on the results presented in Table 2, the Chow Test was conducted as an initial step to determine the most appropriate model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM) in the panel data analysis. The Chow Test yielded a probability (p-value) of 0.0009. Since this value is significantly lower than the standard alpha level of 0.05 (0.0009 < 0.05), the null hypothesis, which suggests that the Common Effect Model is more appropriate, is rejected. Consequently, the Fixed Effect Model (FEM) is considered superior to the CEM, indicating that individual effects across cross-sections (such as banks, countries, or institutions, depending on the context of the study) are not constant and need to be accounted for explicitly in the model.

Following the selection of the Fixed Effect Model, the next step involves testing whether the Random Effect Model (REM) would be more efficient using the Hausman Test. The Hausman Test serves as a diagnostic tool to determine whether the individual effects are correlated with the explanatory variables. If the p-value of the Hausman Test is less than 0.05, it indicates that the FEM is more appropriate because the individual-specific effects are correlated with the regressors, violating the assumptions of the REM. Conversely, if the p-value is greater than 0.05, the REM would be preferred, as it is more efficient under the assumption of no correlation. This test is crucial in ensuring the consistency and efficiency of the estimators used in panel data regression.

Therefore, the combination of these two diagnostic tests—Chow and Hausman—plays a fundamental role in selecting the appropriate econometric model for panel data. The Chow Test justifies the use of FEM over CEM by confirming the presence of significant individual heterogeneity, while the Hausman Test guides the final decision between FEM and REM based on the nature of the correlation between individual effects and the independent variables. Accurate model selection ensures that the resulting coefficients are both unbiased and efficient, thereby strengthening the reliability and validity of the empirical analysis conducted in the study.

Table 3. Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	18.308968	3	0.0004

Source: Secondary Data, processed (2025)

Based on the results displayed in Table 3, the Hausman Test was conducted to compare the suitability of the Fixed Effect Model (FEM) versus the Random Effect Model (REM). The test yielded a

probability (p-value) of 0.0004, which is significantly lower than the standard threshold of 0.05 (0.0004 < 0.05). This result indicates that the null hypothesis—stating that there is no correlation between individual effects and the explanatory variables—must be rejected. Consequently, the FEM is the most appropriate model for this study, as it accounts for unobserved heterogeneity across individual entities that are likely correlated with the regressors. By choosing the FEM, the analysis acknowledges the presence of fixed individual characteristics that may influence the dependent variable, thus enhancing the accuracy and consistency of the estimators.

Furthermore, although the Lagrange Multiplier (LM) Test is commonly used to determine whether the Random Effect Model (REM) is superior to the Common Effect Model (CEM), it was not necessary to conduct this test in the current study. The reason is that the preceding tests—namely the Chow Test and the Hausman Test—had already confirmed the FEM as the most appropriate and statistically reliable model for the dataset. Conducting the LM Test would be redundant since the FEM had already been validated as the optimal choice through statistically significant evidence. Therefore, the model selection process for this research concludes with the adoption of the Fixed Effect Model, ensuring robust analytical outcomes that properly account for individual-specific characteristics across panel units.

Classical Assumption Test

Since the selected model is the FEM, conducting classical assumption test is essential, and this study includes tests for multicillinearity and heteroscedasticity as part of that process (Basuki & Yuliadi, 2015: 183).

Table 4. Multicollinearity Test Result

	DER	OER	ROA
DER	1	0.5443191950466119	-0.6288504879454795
OER	0.5443191950466119	1	-0.8318266086031954
ROA	-0.6288504879454795	-0.8318266086031954	1

Source: Secondary Data, processed (2025)

Based on Table 4, the results of the multicollinearity test show correlation coefficient values of 0.5443 for DER and OER (0.5443 < 0.85), 0.6288 for DER and ROA (0.6288 < 0.85), and 0.8318 for OER and ROA (0.8318 < 0.85). There for it concluded that there is no linear relationship among the independent variables in the regression model, indicating the absence of multicollinearity (Basuki & Yuliadi, 2015).

Table 5. Heteroscedasticity Test Result

Variable	Prob.
C	0.4385
DER	0.5256
OER	0.6924
ROA	0.5959

Source: Secondary Data, processed (2025)

Based on Table 5, the results of the heteroscedasticity test show that the probability values are 0.5256 for DER (0.5256 > 0.05), 0.6924 for OER (0.6924 > 0.05), 0.5959 for ROA (0.5959 > 0.05). Since all the probability values are greater than 0.05, it can be concluded that there is no indication of heteroscedasticity in the model.

Hypothesis Testing and Discussion

Hypothesis testing is used to examined the selected regression model (FEM), and it can be seen in Table 6.

Table 6. Hypothesis Testing Results

Variable	Coefficient	Std. Error	Prob.
C	97713.30	894501.8	0.0148
DER	-9315.795	41056.34	0.8243
OER	-566135.5	935327.2	0.0365

ROA	6123762.	9984058.	0.0115
R-squared	0.681540	Mean dependent var	423939.9
Adjusted R-squared	0.595772	S.D. dependent var	249228.9
S.E. of regression	176975.0	Akaike info criterion	27.29458
Sum squared resid	3.76E+11	Schwarz criterion	27.69287
Log likelihood	-264.9458	Hannan-Quinn criter.	27.37233
F-statistic	3.668766	Durbin-Watson stat	2.870770
Prob(F-statistic)	0.023568		

Source: Secondary Data, processed (2025)

Based on the F-test results in Table 6, the F-statistic value is 0.023568, which is less than 0.05 (0.023568 < 0.05). This suggests that the independent variables, taken together, significantly impact the dependent variable. Therefore, it can be concluded that capital structure, efficiency, and profitability simultaneously affect the stability of Islamic banks in ASEAN. Additionally, the results of the coefficient of determination test in Table 6 show an Adjusted R-Squared value of 0.595772. This suggests that capital structure, efficiency, and profitability can explain 59% of the variation in financial stability.

H1 states that DER positively affects financial stability. Table 6 shows that DER has a coefficient -9315.795 (negative) with probability value 0.8243 at significance level 5%. This indicates that H1 is rejected. In this research, capital structure is measured using the Debt to Equity Ratio (DER), which represents the proportion of debt financing relative to equity in Islamic banks across ASEAN. A higher DER indicates that a bank relies more on debt rather than its own capital to finance its operations (Odhiambo et al., 2022). Although debt can support business growth, overdependence on it heightens financial risk, particularly in the banking sector (Saputri et al., 2023). This is because higher debt levels lead to greater financial obligations in terms of interest payments and principal repayments, which can strain the bank's liquidity and overall financial stability (Akinbola Olawale, 2024). According to Islamic finance principles, reliance on debt must be carefully managed, as Sharia discourages excessive gharar (uncertainty) and financial instability. Therefore, a high DER contradicts the Maqasid al-Shariah goal of preserving wealth (hifz al-mal), highlighting the importance of maintaining a sound balance between debt and equity.

The results indicate when banks have a high DER, their financial flexibility decreases, making it difficult to absorb financial shocks and economic downturns. The increased financial burden from debt may also lead to a higher probability of default, thereby negatively impacting financial stability. From a managerial and policy persepective, Islamic banks should aim to optimize their capital structure by promoting equity-based financing models, such as mudharabah and musharakah, rather than relying heavily on debt. Regulators could design guidelines that encourage higher equity buffers to strengthen resilience against financial instability. Operational efficiency can also be imporved by focusing on risk-sharing instruments that align better with Islamic finance ethics and reduce the vulnerabilities associated with high leverage. Strenghthening internal risk management and liquidity planning would further ensure that Islamic banks are better prepared to face financial shocks while adhering to Shariah-compliant financial practice.

H2 states that OER negatively affects financial stability. Table 6 shows that OER has a coefficient -566135.5 (negative) with probability value 0.0365 at significance level 5%. This indicates that H2 is accepted. In this research, efficiency is measured using the Operational Efficiency Ratio (OER), which reflects the proportion of operating expenses relative to operating income in Islamic banks across ASEAN. A higher OER indicates that a bank incurs higher costs in generating revenue, which signals inefficiency in managing operational expenses. Conversely, a lower OER suggests better efficiency, meaning the ban is able to maximize income while minimizing costs. Since financial stability is closely linked to a bank's ability to control expenses and maintain profitability, an increase in OER negatively impacts financial stability (F. Anggraini et al., 2024). A high OER may indicate poor cost management, inefficient resource allocation, or excessive administrative expenses, all of which can erode financial stability. When a bank struggles with high operational costs, its net income decreases, making it more vulnerable to economic fluctuations and reducing its ability to maintain financial stability (Bokiu et al., 2023).

From the perspective of Islamic finance theory, operational inefficiency contradicts the principle of Amanah (trustworthiness) and the obligation to manage resources effectively for stakeholders. Efficient use of resources is crucial to uphold the objective of Maqasid al-Shariah, particulary the protection and preservation of wealth (hifz al-mal). Therefore, banks must not only pursue profitability

but also ensure responsible cost management as part of their fiduciary duty.in terms of policy and managerial implications, Islamic banks should prioritize initiatives to enhance operational efficiency, such as implementing digital transformation strategies, automating routine processes, and strengthening internal controls to minimize unnecessary expenses. Management should adopt performance-based budgeting and periodic cost-benefir analysis to ensure optimal use of financial resources. Policymakers could introduce benchmarks for operational efficiency specific to Islamic banks, encouraging institutions to meet minimum efficiency thresholds. Promoting training and capacity-building programs for employees can also help improve productivity and cost awareness within the organization. By maintaining a lower OER, Islamic banks will be better positioned to sustain financial stability and resilience, while remaining compliant with Shariah principles.

H3 states that ROA positively affects financial stability. Table 6 shows that ROA has a coefficient 6123762.0 (positive) with probability value 0.0115 at significance level 5%. This indicates that H3 is accepted. In this study, profitability is assessed using ROA, which reflects how effectively an Islamic bank employs its assets to produce profits. A higher ROA reflects strong financial performance, as it demonstrates that the bank is effectively managing its assets to produce earnings (Al Salamat & Al-Kharouf, 2021). Since profitability is a key determinant of financial stability, an increase in ROA contributes positively to a bank's ability to maintain stable financial conditions. Profitable banks have greater financial flexibility, allowing them to absorb economic shocks, manage risks effectively, and sustain long-term stability (Nurhikmah & Rahim, 2021). A high ROA indicates that the bank is successfully managing these activities, ensuring sufficient earning to cover operational costs, strengthen capital reserves, and enhance financial stability (Zeqiraj et al., 2021). Additionally, profitable banks attract more investors and depositors, further solidifying their financial position and reducing the risk of liquidity crises (Najam et al., 2022).

From the perspective of Islamic finance, profitability must align with the principles of fairness, transparency, and ethical investment. Islamic banks are encouraged to engage in profit-generating activities that are Shariah-compliant, promoting real economic activities through risk-sharing contrast suc as mudharabah and musharakah. A strong ROA, therefore, is not merely a reflection of financial strength but also of successful adherence to Islamic finance values, where profitability supports broader socio-economic development without engaging in prohibited (haram) activities.

In terms of policy and managerial implications, Islamic banks should focus on enhancing asset utilization and diversifying their Sharia-compliant investment portofolios to sustain profitability. Management can implement strategies such as strengthening risk assessment frameworks for investment projects, promoting innovative Islamic financial products, and expanding into untapped halal sectors to optimize returns. Policymakers could support these efforts by creating supportive regulatory environments that encourage ethical profitability while reinforcing financial stability standards. Furthermore, Islamic banks should regularly evaluate their asset performance through Sharia-compliant performance indicators, ensuring that profitability growth aligns with the Maqasid al-Shariah, especially in promoting economic walfare (maslahah) and protecting wealth (hifz al-mal). By consistently achieving high ROA through Shaia-compliant practices, Islamic banks can build a resilient financial structure capable of withstanding economic turbulence while fulfilling their religious and social obligations.

E. CONCLUSIONS

This research shows that capital structure, efficiency, and profitability significantly affect the financial stability of Islamic banks in ASEAN. A higher Debt to Equity Ratio (DER) weakens financial stability, as excessive debt increases financial risk and reduces flexibility during economic downturns. Meanwhile, a high Operational Efficiency Ratio (OER) negatively impacts stability, as high operating costs lower profitability and make banks more vulnerable to financial shocks. On the other hand, a higher Return on Assets (ROA) strengthens financial stability, as profitable banks are better equipped to manage risks, sustain growth, and attract investors.

To improve financial stability, Islamic banks should reduce excessive debt and strengthen equity financing through profit-sharing instruments like *mudarabah* and *musharakah*. Banks should also enhance efficiency by adopting technology, streamlining operations, and controlling costs to lower OER. Additionally, boosting profitability through better asset management and product diversification will increase ROA, reinforcing long-term financial resilience. These strategies, combined with supportive policies from regulators, can help Islamic banks achieve sustainable growth while staying true to Shariah principles.

F. REFERENCES

Abduh, M., & Omar, M. A. (2012). Islamic banking and economic growth: the Indonesian experience. *International Journal of Islamic and Middle Eastern Finance and Management*, *5*(1), 35–47. https://doi.org/DOI 10.1108/17538391211216811

Akinbola Olawale. (2024). Capital adequacy and financial stability: A study of Nigerian banks' resilience in a volatile economy. *GSC Advanced Research and Reviews*, *21*(1), 001–012. https://doi.org/10.30574/gscarr.2024.21.1.0346

Al Salamat, W., & Al-Kharouf, S. (2021). The determinants of financial stability: evidence from Jordan. *International Journal of Business and Social Science*, *12*(1), 25–35.

Anggraini, F., Taufik, T., Muizzuddin, M., & Andriana, I. (2024). Analisis Stabilitas Perbankan Syariah dan Konvensional di Negara-Negara Kawasan MENA. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *6*(2), 609–621.

Anggraini, P., Octasylva, A. R. P., & Puspita, M. E. (2024). Analisis Rasio Keuangan terhadap Financial Distress Menggunakan Altman Z-Score. *JURNAL ILMU PENGETAHUAN DAN TEKNOLOGI (IPTEK)*, *8*(1), 8–12.

Arbelo, A., Arbelo-Pérez, M., & Pérez-Gómez, P. (2021). Profit efficiency as a measure of performance and frontier models: a resource-based view. *BRQ Business Research Quarterly*, *24*(2), 143–159.

Ariss, R. T. (2010). Competitive conditions in Islamic and conventional banking: A global perspective. *Review of Financial Economics*, *19*(3), 101–108.

Asif, R., & Nasir, A. (2024). Financial stability nexus of Islamic banks: an influential and intellectual science mapping structure. *Journal of Islamic Accounting and Business Research*, *15*(4), 569–589. https://doi.org/10.1108/JIABR-07-2022-0167

Atang, G. D., Massie, J., & Wangke, S. (2022). The effect of financial ratios to financial distress using altman z score on hotel and tourism companies listed in indonesian stock exchange. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, *10*(1), 1467–1475.

Banna, H., & Alam, M. R. (2021). Impact of digital financial inclusion on ASEAN banking stability: implications for the post-Covid-19 era. *Studies in Economics and Finance*, *38*(2), 504–523. https://doi.org/10.1108/SEF-09-2020-0388

Basuki, A. T., & Yuliadi, I. (2015). Electronic data processing (SPSS 15 dan Eviews 7). *Yogyakarta: Danisa Media*, *167*.

Beck, T., Demirgüç-Kunt, A., & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking & Finance*, *37*(2), 433–447.

Bokiu, J., Ardjun, T. A., & Mustapa, S. Y. (2023). Pengaruh Profitability Terhadap Capital Buffer: Implikasi Terhadap Stabilitas Keuangan Bank Pada Tahun 2018-2021. *Jurnal Ilmiah Wahana Pendidikan*, *9*(14), 416–425.

Čihák, M., & Hesse, H. (2010). Islamic banks and financial stability: An empirical analysis. *Journal of Financial Services Research*, *38*, 95–113.

Dahmani, L., & Makram, H. (2024). Fostering Economic Growth Through Financial Stability in Sub-Saharan Africa. *Journal of Business and Economic Options*, *7*(4), 13–22.

Franquesa, J., & Vera, D. (2021). Small business debt financing: the effect of lender structural complexity. *Journal of Small Business and Enterprise Development*, *28*(3), 456–474. https://doi.org/10.1108/JSBED-01-2020-0013

Hasan, M. M., & Dridi, J. (2010). *The effects of the global crisis on Islamic and conventional banks: A comparative study*.

Kalash, I. (2023). The financial leverage–financial performance relationship in the emerging market of Turkey: the role of financial distress risk and currency crisis. *EuroMed Journal of Business*, *18*(1), 1–20. https://doi.org/10.1108/EMJB-04-2021-0056

Karem, A. A., & Azzahra, M. S. (2024). Analyzing the Impact of Regulatory Policies on Financial Stability and Market Dynamics in the Banking Industry. *Inspirasi & Strategi (INSPIRAT): Jurnal Kebijakan Publik & Bisnis*, *14*(2), 83–91.

Maritsa, F. H. N., & Widarjono, A. (2021). Indonesian Islamic Banks and Financial Stability: An Empirical Analysis. *EkBis: Jurnal Ekonomi Dan Bisnis*, *5*(1), 71–87. https://doi.org/10.14421/EkBis.2021.5.1.1279

Mollah, S., Hassan, M. K., Al Farooque, O., & Mobarek, A. (2017). The governance, risk-taking, and performance of Islamic banks. *Journal of Financial Services Research*, *51*, 195–219.

Najam, H., Abbas, J., Álvarez-Otero, S., Dogan, E., & Sial, M. S. (2022). Towards green recovery: Can banks achieve financial sustainability through income diversification in ASEAN countries? *Economic Analysis and Policy*, *76*, 522–533. https://doi.org/10.1016/j.eap.2022.09.004

Nugroho, L., & Anisa, N. (2018). PENGARUH MANAJEMEN BANK INDUK, KUALITAS ASET, DAN EFISIENSI TERHADAP STABILITAS BANK SYARIAH DI INDONESIA (PERIODE TAHUN 2013-2017). *Inovbiz: Jurnal Inovasi Bisnis*, *6*(2), 114. https://doi.org/10.35314/inovbiz.v6i2.833

Nukala, V. B., & Prasada Rao, S. S. (2021). Role of debt-to-equity ratio in project investment valuation, assessing risk and return in capital markets. *Future Business Journal*, *7*(1), 13. https://doi.org/10.1186/s43093-021-00058-9

Nurhikmah, S., & Rahim, R. (2021). Pengaruh Faktor Keuangan dan Non Keuangan terhadap Financial Sustainability Ratio Perbankan. *Journal of Management and Business Review*, *18*(1), 25–47.

Odhiambo, A., Koske, N., & Limo, P. (2022). Debt-Equity Ratio, CEO Power and Financial Performance of Listed Companies at the Nairobi Securities Exchange, Kenya. *European Journal of Business and Management Research*, *7*(2), 330–338. https://doi.org/10.24018/ejbmr.2022.7.2.1391

Oktoviyanti, O., & Etty Murwaningsari. (2023). FAKTOR - FAKTOR YANG MEMPENGARUHI FINANCIAL SUSTAINABILITY PADA SUB-SEKTOR PERBANKAN. *Jurnal Ekonomi Trisakti*, *3*(1), 927–942. https://doi.org/10.25105/jet.v3i1.15533

Pinanda, R., & Suraya, A. (2024). Pengaruh Debt to Equity Ratio (Der) dan Gross Profit Margin (Gpm) terhadap Z-Score pada Pt. Tri Banyan Tirta Tbk Periode 2013-2022. *Cakrawala: Jurnal Ekonomi, Manajemen Dan Bisnis*, *1*(3), 830–840.

Prawira, A., & Anwar, N. (2024). Evaluasi Efisiensi Operasional Bank pada Bank Central Asia Syariah dan Bank Muamalat Indonesia. *Krigan: Journal of Management and Sharia Business*, *2*(1), 93–108.

Rani, L. N., Bt Mohd Ariffin, N., Ratnasari, R. T., & Aulia, M. R. (2024). ANALYZING ISLAMIC BANKS STABILITY: EVIDENCE FROM SOUTHEAST ASIA AND THE GULF COOPERATION COUNCIL COUNTRIES (GCC). *Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business)*, *10*(2). https://doi.org/10.20473/jebis.v10i2.65092

Rizki Rizki, Bakhtiar Efendi, & Lia Nazliana Nasution. (2025). Analisis Kinerja Ekonomi Makro dan Kinerja Perbankan Terhadap Stabilitas Perbankan Bank Umum Syariah di Indonesia. *Jurnal Riset Ekonomi Dan Akuntansi*, *3*(1), 171–183. https://doi.org/10.54066/jrea-itb.v3i1.3010

Saputri, P. L., Agriyanto, R., & Abdillah, M. (2020). Analyzing The Macroeconomic and Fundamental Determinants of Non-Performing Financing of Bank Muamalat Indonesia. *Economica: Jurnal Ekonomi Islam*, *11*(1), 49–78. https://doi.org/10.21580/ECONOMICA.2020.11.1.4346

Saputri, P. L., Ahmadi, H., & Kusumawati, D. A. (2023). *The Effect of Financing Distribution on NPF in Islamic Banking: A Short- and Long-Term ECM Analysis* (pp. 197–208). https://doi.org/10.1007/978-3-031-27860-0_18

Saputri, P. L., & Zamrudi, M. F. Y. (2023). Islamic Banks and Its Role in Reducing Poverty. *Journal of Economic, Management, Accounting and Technology*, *6*(1), 73–81.

Savestra, F., Hermuningsih, S., & Wiyono, G. (2021). Peran Struktur Modal Sebagai Moderasi Penguatan Kinerja Keuangan Perusahaan. *Jurnal Ekonika: Jurnal Ekonomi Universitas Kadiri*, *6*(1), 121–129.

Suripto, Sugiono, A., & Dasuki, H. (2023). Comparing the resilience of Sharia and conventional banking to the financial crisis in the Association of Southeast Asian Nations. *Banks and Bank Systems*, *18*(3), 192–204. https://doi.org/10.21511/bbs.18(3).2023.16

Yilmaz, M. K., Aksoy, M., & Khan, A. (2024). Moderating role of corporate governance and ownership structure on the relationship of corporate sustainability performance and dividend policy. *Journal of Sustainable Finance & Investment*, *14*(4), 988–1017. https://doi.org/10.1080/20430795.2022.2100311

Yoyo, T., & Priyowidodo, A. (2024). *The Influence of Return On Assets (ROA), Return On Equity (ROE), Current Ratio (CR), Debt To Equity Ratio (DER), And Total Asset Turnover (TATO) On Financial Distress Conditions (Empirical Study on Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2019-2023 Period)*.

ZAHRA, S. F., MURDAYANTI, Y., & AMAL, M. I. (2021). Sharia Banking Stability Against Macroeconomic Shocks: A Comparative Analysis in the ASEAN Region. *The Journal of Asian Finance, Economics and Business*, *8*(4), 151–159.

Zeqiraj, V., Mrasori, F., Iskenderoglu, O., & Sohag, K. (2021). Dynamic Impact of Banking Performance on Financial Stability: Fresh Evidence from Southeastern Europe. *Journal of Central Banking Theory and Practice*, *10*(1), 165–181. https://doi.org/10.2478/jcbtp-2021-0008