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ANALYZING ISLAMIC BANKS STABILITY: EVIDENCE FROM SOUTHEAST ASIA AND THE GULF COOPERATION COUNCIL COUNTRIES (GCC)

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ABSTRACT

Introduction: This study investigates the factors, particularly those related to banks and macroeconomics, that influence the stability of 38 Islamic banks in Southeast Asian countries and the Gulf Cooperation Council (GCC) based on annual data from 2013 to 2020. The study aims to identify key determinants of stability across distinct regions and highlight the significance of these determinants in maintaining financial stability in Islamic banks.
Methods: Using a quantitative approach with panel regression analysis, this study examines various factors influencing Islamic bank stability in Indonesia, Malaysia, the United Arab Emirates, and Qatar. Specific factors considered include Assets, Non-Performing Financing (NPF), Gross Domestic Product (GDP), and Return on Assets (ROA).
Results: The findings reveal that in Indonesia, Assets, NPF, and GDP are significant factors influencing bank stability. In Malaysia, ROA, Assets, and GDP are significant, whereas in the United Arab Emirates, only ROA is significant, and in Qatar, only Assets are significant.
Conclusion and suggestion: Islamic banks should pay attention to the Z-Score from previous periods and manage assets and liabilities effectively to ensure stability. Effective macroprudential supervision is also necessary to enhance resilience in the financial system. Maintaining asset quality is essential for mitigating risks to banking stability.

INTRODUCTION

The stability of the banking system has various definitions. Some authors describe it as a condition in which the financial intermediary functions efficient and without disruption despite internal or external variations (Kanapiyanova et al., 2023). Policy makers defines stability system banking as the absence of crisis (P. K. Ozili, 2018). This study defines

banking stability as a stable condition in which financial institutions efficiently perform their main economic and financial tasks, such as resource allocation and risk management, without being affected by any disruptions (Kanapiyanova et al., 2023). Financial stability is crucial in every economy because banks control and manage the financial system (Moyo et al., 2014). Banks are interconnected with it peers, as well as with households and businesses. Therefore, if some banks are affected, either internally or in their relationship with customers, this can lead to instability in the banking sector (Ahamed & Mallick, 2019).

Islamic banking has demonstrated its ability to withstand major crises over the past 12 years (Shah et al., 2023). Among these were the global financial crisis in 2008 and the health crisis caused by COVID-19. During the global financial crisis in 2008, Islamic banks generally showed greater resilience compared to conventional banks (Hasan & Dridi, 2011). This resilience can be attributed to the characteristics of the Islamic banking business model, which helped mitigate the negative impact of the crisis on their profitability. These characteristics include a smaller investment portfolio, lower leverage, and adherence to Shariah principles, which prevent Islamic banks from financing or investing in high-risk financial instruments that exacerbate the situation for conventional banks. These factors played a crucial role in protecting Islamic banks from the adverse effects of the crisis in 2008 (Hasan & Dridi, 2011). As a result, the negative impact of the crisis on Islamic banking was not as significant as on conventional banking. Additionally, Islamic banks faced challenges from the health crisis caused by the COVID-19 pandemic. However, they once again demonstrated resilience through more conservative financial practices and a focus on financing the real sector. By supporting actual economic activities, Islamic banks were able to reduce exposure to the high volatility of financial markets during the pandemic.

Banking financial stability has been a major concern during and after the global financial crisis (GFC) of 2008–2009 (Mabkhot & Al-Wesabi, 2022). Generally, banking stability depends on internal and external factors (Baselga-Pascual et al., 2015; Creel et al., 2015). Internal factors refer to bank-specific variables that determine banking stability, while external factors refer to variables reflecting macroeconomic conditions that influence banking stability. Therefore, this study not only discusses the factors that influence the stability of Islamic banking but also compares the stability profiles of the Islamic banking financial systems in Southeast Asia and GCC countries, specifically before and after COVID-19, which had a significant impact on the stability of the global financial system, including Islamic banking. This study's uniqueness lies in its comparative analysis of Islamic banking stability across two economically and geographically distinct regions, Southeast Asia and the GCC, with a particular focus on the COVID-19 pandemic period. This approach provides insights into the adaptive measures of these regions in response to global financial challenges.

The findings of this study contribute to the existing literature on banking stability in several ways. First, a comprehensive approach using a weighted index is applied to measure bank stability, specifically the Z-score. Second, existing research on factors driving bank stability focuses on two groups: bank-specific factors and macroeconomic factors.

Third, most previous studies have not examined banking stability in Southeast Asia and GCC regions simultaneously. Hence, this study will investigate the impact of bank-specific and macroeconomic factors on the stability of Islamic banking in these two regions.

LITERATURE REVIEW

Islamic Financial Stability Theories

Joudar et al. (2023) identify four main factors supporting the stability of Islamic finance. First, the bank's balance sheet structure reflects financial risk in banking activities. In this structure, demand deposits and investment accounts are on the liability side, while financing and investment accounts are on the asset side. This structure facilitates matching maturities between assets and liabilities (Ghassan & Krichene, 2017). Second, the profit and loss sharing system, which, according to Chishti (1985), includes a stabilizing mechanism due to the absence of gaps between cash flow and payment commitments, is often seen as a source of instability. Third is asset quality, where Islamic banks generally have higher asset quality, with lower levels of non-performing loans and fewer loan loss reserves (Prima Sakti & Mohamad, 2018). The fourth factor is the relationship between the financial sector and the real economy. Islamic banking theory asserts that Islamic banks support transactions backed by tangible assets, allowing cash flows to meet real economic needs such as moving goods and services (Njima & Zouari, 2012).

Based on various previous studies, including Rajhi and Hassairi (2014), the stability of Islamic banking is often measured using the Z-score. The Z-score was first introduced by Edward Altman and was developed to determine the tendency of a company to go bankrupt. It can also be used as a measure of overall financial performance. The Z-score is a popular and widely used indicator of banking health (Hamdi et al., 2019). This score reflects the distance from bankruptcy by combining measures of accounting profitability, leverage, and volatility (Rajhi & Hassairi, 2014). A higher Z-score suggests a lower risk of insolvency, indicating a lower probability of bankruptcy and vice versa.

Financial Stability and Its Determinants

The global financial crisis of 2007–2008 provided an ideal opportunity for researchers to investigate the factors influencing bank stability, including the study by Mabkhot and Al-Wesabi (2022) that used data from 2005 to 2020 to test the macroeconomic factors influencing bank stability in GCC countries. They found that Gross Domestic Product (GDP) had a significant positive impact, while inflation jeopardized banking stability. Similarly, a study conducted by Othman et al (2023) on the relationship between equity financing and Islamic bank stability in Indonesia and Malaysia found that non-performing loans harm Islamic banking stability.

In their findings, Ernaningsih et al. (2023) noted that, for bank-level control variables, there is a positive and significant relationship between bank size and bank stability. This supports previous findings that larger banks benefit from greater

opportunities for asset diversification compared to smaller banks (Tabak et al., 2012), and achieve cost efficiency through economies of scale while also generating stable income without taking excessive risks (Schaeck & Cihák, 2014). At the country level, GDP growth is positively and substantially associated with the Z-score across different country specifications. These findings align with previous literature that suggests higher economic growth is beneficial for banks, as it generally stimulates business activity, increases bank profits, and reduces default risk (Smaoui et al., 2020). The findings of Kanapiyanova et al. (2023) also argue that GDP positively and significantly impacts financial vulnerability risk. This suggests that economic growth increases financial vulnerability risks for banks in QISMUT+3 (Qatar, Indonesia, Saudi Arabia, Malaysia, United Arab Emirates, Turkey, Pakistan, Kuwait, and Bahrain) countries. On the other hand, inflation is found to be positively related to financial vulnerability. High inflation can lead to currency devaluation, which impacts the value of bank assets and increases bank vulnerability (Jalali-Naini & Naderian, 2020). Another study conducted by Alkharouf et al. (2021) using banking and macroeconomic data from 2007 to 2016 showed empirical results indicating a statistically significant negative influence of inflation and debt on the capital adequacy ratio, which impacts profitability.

Miah and Uddin (2017) researched GCC countries and found that the capital and size of Islamic banks have a direct connection with stability during the period 2005 to 2014. This aligns with Alharthi (2017) who discovered a positive influence of capital on the Z-score of Islamic banks in the GCC using the same period of analysis. Meanwhile, Alqahtani and Mayes (2018) covered the financial crisis period and beyond, specifically from 2000 to 2013. They tested the influence of CAMEL variables on bank stability in the GCC and found that capital has a lineal impact on stability. Management efficiency, profitability, and bank size are also directly related to stability, while liquidity indirectly influences the Z-score.

The results from Lassoued (2018) showed that for Islamic banks in Malaysia, capital adequacy and ROA have a forthright connection with stability. Conversely, management efficiency has a negative relationship with the Z-score. However, the impact of liquidity on stability varies depending on the method used. P. Ozili (2019) examined the factors influencing banking stability in Nigeria and found that bank efficiency, bank concentration, credit supply, and profitability significantly and positively influence bank stability, while inflation and GDP growth jeopardize it. According to Pham et al. (2021), bank stability is positively affected by the stability of banks in the previous year, the equity-to-assets ratio, loan-to-assets ratio, bank size, foreign investments, and income diversification, while it is adversely influenced by the market share of mobilized capital, loan loss allowances, and certain market structures.

The literature review above confirms the relationship between bank stability and external determinants (macroeconomic variables) and internal factors (bank-specific variables). However, previous studies have shown widely varying results. It is acknowledged that the aforementioned empirical studies did not focus solely on Islamic banks but often compared Islamic and conventional banks. Additionally, earlier research

typically employed a single econometric model to analyze both types of banks simultaneously. To address this gap, we have developed a specific econometric model for the financial stability of Islamic banks. This allows us to explore the impact of each variable on the performance of Islamic banks with greater clarity. For the first time, this research analyzes the financial stability of Islamic banking in Southeast Asia and GCC countries.

Hypothesis

Based on the theory discussed previously and a review of existing literature, this research develops the following hypotheses:

For the first hypothesis, we use Return on Assets (ROA) as a measure of the intensity and performance of bank capital in generating profit after accounting for all operational costs (Goetz, 2018; Kabir et al., 2015). Various studies highlight the reasons behind the selection of ROA. According to Olson and Zoubi (2008), ROA can reflect the level of expenses and income of assets. Louati and Boujelbene (2015) argue that banks can quickly fall into the threat of bankruptcy, highlighting a positive relationship between ROA and stability. Therefore, the following hypothesis is proposed:
H1: There is a positive and significant influence of ROA on the stability of Islamic banking.

The second hypothesis uses bank size, proxies by total assets, as it is expected to influence the stability of banking institutions. Several studies have used this variable, including those by Cubillas and González (2014) and Fang et al. (2014). Research by Tabak et al. (2012) found that larger banks are more profitable due to competition, as they benefit from market power and opportunities for asset diversification compared to smaller banks. Thus, larger banks can ensure a more stable income without the incentive to take excessive risks, making them more financially stable.
H2: There is a positive and significant influence of Assets on the stability of Islamic banking.

The third hypothesis concerns banking risk, which is measured in this study by using the Non-Performing Financing (NPF) ratio. Kabir and Worthington (2017) suggested that Non-Performing Loans (NPL) can be used as a measure of risk based on accounting, defined as the ratio of total loans experiencing a decline in value, held by the bank, to total net loans. In Islamic banking, the NPF ratio is used as a benchmark to signal the likelihood of increased bankruptcies and vice versa (Cihak & Hesse, 2010; Goetz, 2018).
H3: There is a negative and significant influence of NPF on the stability of Islamic banking.

The fourth hypothesis uses economic activity, measures by Gross Domestic Product (GDP). It is significant because financial development and economic growth (EG) are needed to support a country's development (Albaity et al., 2019). Thus, Islamic finance and

the country's economic growth will influence the stability of Islamic banking in Indonesia, as also suggested by Hasan and Dridi (2011) and Khediri et al. (2015).
H4: There is a positive and significant influence of GDP on the stability of Islamic banking.

The fifth hypothesis considers inflation, as it is expected to impact GDP and economic growth. Inflation is one of the key measures of the stability of the domestic economic environment, as changes in inflation can affect economic movements (Kassim, 2016). Therefore, high inflation in a country may increase the banking system's vulnerability to risk (Pak & Nurmakhanova, 2013), potentially impacting financial stability, as highlighted by previous studies. Most studies on financial stability state that inflation has a significant and negative relationship with banking stability (Amidu & Wolfe, 2013; Labidi & Mensi, 2015; Trad et al., 2017).
H5: There is a negative and significant influence of inflation on the stability of Islamic banking.

RESEARCH METHODS

This study adopts a quantitative approach. The sample used in this research consists of 38 Sharia banks from 2 Southeast Asia and 2 GCC countries, namely Indonesia, Malaysia, the United Arab Emirates, and Qatar. The research data covers the period from 2013 to 2020. This study uses a panel dataset with variables derived from previous empirical studies. The analysis employs panel data techniques to identify the determinants of financial stability in Sharia banking in Southeast Asia and the GCC. We estimate the regression, including control variables for bank-specific and macroeconomic factors. To estimate the equation, we use a random effects model with Generalized Least Squares (GLS) and a fixed effects model to check the robustness of the results, and we also apply Ordinary Least Squares (OLS) estimation. In this study, the significance level is set at 5% (α = 0.05) for hypothesis testing

Based on numerous sources of previous literature, such as Daradkah, the measurement of Islamic banking stability uses the Z-score. The Z-score indicates the distance to bankruptcy by combining measures of accounting profitability, leverage, and volatility (Rajhi & Hassairi, 2013). The Z-score inversely relates to the probability of bank bankruptcy, meaning that a higher Z-score indicates a lower risk of bankruptcy. Thus, the Z-score ratio is a popular measure of banking health. The Z-score is then converted to a natural logarithm to smooth out extreme values (Banna & Alam, 2021; Del Gaudio et al., 2021; Ha & Nguyen, 2023; Vo et al., 2021). It is symbolized as follows:

$$LnZscore = \frac{(ETA_{it} + ROA_{it})}{\sigma ROA_{it}} \qquad (1)$$

ETA_{it} shows the ratio equity to assets at bank i and time t; ROA_{it} shows return assets at bank i and time t; σROA_{it} shows deviation standard from Sample; LnZ-score denotes bank stability.

Overall, we use the LnZ-score to measure bank financial stability in this study and as the dependent variable. The LnZ-score is widely used in previous empirical studies to measure bank financial stability through panel data regression techniques. The bank-specific variables include Return on Assets (ROA), total assets (TA), and Non-Performing Financing (NPF), while the macroeconomic variables cover Gross Domestic Product (GDP) and inflation levels. To determine the influence of these determinants on the stability of Islamic banking, this research formulates econometric models as follows:

$$LnZscore_{it} = \beta 0 + \beta 1\, ROA_{it} + \beta 2 LnTA_{it} + \beta 3 NPF_{it} + \beta 4 GDP_{it} + \beta 6 INF_{it} + \varepsilon_{it} \qquad (2)$$

LnZ-score is bank stability, ROA is profitability, LnTA is total assets, NPF is Non-performing financing, GDP is gross domestic product, INF is inflation, and ε_{it} is term error.

Operational Variable

1. **Return on Assets (ROA)**

   ROA is used as a proxy to measure a bank's ability to generate profit after accounting for all operational costs. According to Goetz (2018) and Kabir et al. (2015), ROA indicates the intensity of the bank's capital usage in generating profitability. Olson and Zoubi (2008) explain that ROA reflects the level of expenses and income generated from the bank's assets. The higher the ROA, the greater the bank's stability, as a high ROA demonstrates efficient management and operational stability.

   Measurement Indicator: Net Income divided by Total Assets.

2. **Bank Size (Assets)**

   Bank size is measured based on the total assets held by the bank. According to Tabak et al. (2012), larger banks tend to have higher stability due to the benefits of broader asset diversification and cost efficiency through economies of scale. Larger banks possess greater market power, which can contribute to more stable income without the need for excessive risk-taking.

   Measurement Indicator: Natural Logarithm of Total Assets (LNTA).

3. **Non-Performing Financing (NPF)**

   NPF is used as an indicator of non-performing financing risk. A high NPF ratio indicates a high risk of problematic financing, ultimately negatively impacting the bank's stability. Kabir and Worthington (2017) use NPF as a financial risk signal, indicating the potential for bank bankruptcy.

   Measurement Indicator: Total Non-Performing Financing divided by Total Net Financing.

4. **Gross Domestic Product (GDP)**

GDP is used as a proxy for the level of economic activity. A high GDP indicates significant economic growth, which can positively impact banking stability by enhancing business opportunities and reducing default risk. According to Hasan and Dridi (2011), strong economic growth promotes bank stability by increasing demand and profitability for banks.

Measurement Indicator: Real GDP Growth Rate.

5. Inflation

Inflation is used as a proxy for the stability of the domestic economic environment. High inflation rates can lead to currency devaluation, impacting the value of bank assets and increasing bank vulnerability. According to Kassim (2016), high inflation may render the banking system more susceptible to risk. Studies also indicate that inflation has a significant negative relationship with banking stability, as high inflation may reduce purchasing power and exacerbate credit risk.

Measurement Indicator: Annual Inflation Rate (%).

RESULT

Table 1
Indonesia's Descriptive Statistic

	ZSCORE_ID	ROA_ID	LNTA_ID	NPF_ID	GDP_ID	INF_ID
Mean	2.8465	0.0084	29.9025	0.0469	9.69E+15	0.0428
Median	2.7173	0.0074	29.6746	0.0375	9.67E+15	0.0324
Maximum	5.3556	0.1358	32.4745	0.4399	1,, 09E+16	0.0838
Minimum	0.0467	-0.2013	26.4285	0.0000	8.56E+15	0.0166
Std. Dev.	1.1911	0.0415	1.3463	0.0613	8.95E+14	0.0243
Skewness	0.0962	-0.9320	-0.0761	4.3836	0.3522	0.9753
Kurtosis	2.4131	11.1492	2.4473	25.4019	1.4729	2.2428
Jarque-Bera	1.5255	279.5327	1.3145	2314,833	9.3476	17.514
Probability	0.4664	0.0000	0.5183	0.0000	0.0093	0.0002
Sum	273.2635	0.8054	2870,639	4.5031	9.31E+17	4.1100
Sum Sq. Dev.	134.7899	0.1637	172,2001	0.3573	7.61E+31	0.0562
Observations	96	96	96	96	96	96

Source: Processed Data (2024)

Table 1 reports summary statistics for the dependent and independent variables. The average Z-score of the sample is 2.85, ranging from 0.047 to 5.36, reflecting a significant disparity in bank stability. Likewise, the average ROA is 0.01, ranging from -0.05 to 0.14. The mean TA is 0.02, with a range between 26.43 and 32.48, indicating considerable variation in bank size. The average NPF is 0.05, with a range between 0.00 and 0.44. The average GDP is 9.69E+15, ranging from 8.56E+15 to 1.09E+16. Inflation has a mean of 0.04, ranging from 0.02 to 0.08.

Table 2
Malaysia's Descriptive Statistic

	ZSCORE_MY	ROA_MY	LNTA_MY	NPF_MY	GDP_MY	INF_MY

Mean	3.8390	0.0065	17.0919	0.0155	1.29E+15	0.017138
Median	3.8888	0.0073	17.0160	0.0121	1.31E+15	0.020950
Maximum	5.0926	0.0256	19.3577	0.0530	1.51E+15	0.038700
Minimum	2.2972	-0.0093	15.6333	0.0031	1.02E+15	-0.011400
Std. Dev.	0.4934	0.0040	0.9086	0.0097	1.66E+14	0.014669
Skewness	-0.3607	-0.1056	0.3754	1.1448	-0.2371	-0.476417
Kurtosis	3.4032	8.4759	2.4807	4.1614	1.6689	2.573710
Jarque-Bera	3.6432	160.1591	4.4439	35.154	10.6490	5.811280
Probability	0.1618	0.0000	0.1084	0.0000	0.0049	0.054714
Sum	491.3933	0.8354	2187,762	1.9816	1.65E+17	2.193600
Sum Sq. Dev.	30.9145	0.0020	104.8504	0.0120	3.51E+30	0.027329
Observations	128	128	128	128	128	128

Source: Processed Data (2024)

Table 2 presents summary statistics for the dependent and independent variables. The average Z-score of the sample is 3.84, with a range between 2.30 and 5.09, indicating significant variability in bank stability. Similarly, the average ROA is 0.01, ranging from -0.01 to 0.03. The mean TA is 17.09, with a range between 15.63 and 19.36, indicating moderate variation in bank size. The average NPF is 0.02, ranging from 0.003 to 0.053. The average GDP is 1.29E+15, with a range between 1.02E+15 and 1.51E+15. Inflation has a mean of 0.02, ranging from -0.01 to 0.04.

Table 3
UAE's Descriptive Statistic

	ZSCORE_AE	ROA_AE	LNTA_AE	NPF_AE	GDP_AE	INF_AE
Mean	3.0384	0.0078	24.6960	0.0651	3.90+E11	0.0127
Median	3.2658	0.0119	24.5428	0.0655	3.88E+11	0.0180
Max	4.5903	0.0256	26.3916	0.1600	4.26E+11	0.0407
Min	0.5724	-0.1765	22.6823	0.0123	3.51E+11	-0.0208
Std. Dev.	1.1625	0.0282	0.8790	0.0321	2.37E+10	0.0209
Skewness	-0.9412	-5.9926	-0.0620	0.6568	-0.0309	-0.5770
Kurtosis	2.9611	39.8429	2.3134	3.3658	1.8711	2.0651
Jarque-Bera	7.0897	3002.093	0.9736	3.7183	2.5565	4.4112
Probability	0.0289	0.0000	0.6146	0.1558	0.2785	0.1102
Sum	145.8449	0.3746	1185.409	3.1250	1.87E+13	0.6102
Sum Sq. Dev.	63.5116	0.0373	36.3178	0.0485	2.65E+22	0.0206
Obs	48	48	48	48	48	48

Source: Processed Data (2024)

Table 3 presents summary statistics for the dependent and independent variables. The average Z-score of the sample is 3.04, ranging from 0.57 to 4.59, indicating considerable variability in bank stability. Similarly, the average ROA is 0.008, ranging between -0.18 and 0.03. The mean TA is 24.70, ranging from 22.68 to 26.39, indicating significant variation in bank size. The average NPF is 0.07, ranging from 0.01 to 0.16. The average GDP is 3.90E+11, ranging from 3.51E+11 to 4.26E+11. Inflation has a mean of 0.01, ranging from -0.02 to 0.04.

Table 4
Qatar's Descriptive Statistic

	ZSCORE_ QA	ROA_ QA	LNTA_ QA	NPF_ QA	GDP_ QA	INF_ QA
Mean	4.2280	0.0180	25.0054	0.0141	1.61E+11	0.0078
Median	4.1914	0.0178	25.0702	0.0125	1.61E+11	0.0115
Max	5.0736	0.0261	25.8844	0.0360	1.84E+11	0.0350
Min	0.4334	0.0066	24.2386	0.0009	1.35E+11	-0.0350
Std. Dev.	0.4554	0.0040	0.5056	0.0094	1.74E+10	0.0217
Skewness	0.4554	-0.3853	0.1392	0.9082	-0.051114	-0.6381
Kurtosis	2.0673	4.2718	1.7622	3.4666	1.610995	2.4908
Jarque-Bera	2.2661	2.9484	2.1463	4.6897	2.586381	2.5173
Probability	0.3220	0.2290	0.3419	0.0959	0.274394	0.2840
Sum	135.2956	0.5770	800.1732	0.4518	5.15E+12	0.2480
Sum Sq. Dev.	5.8227	0.0005	7.9256	0.0028	9.36E+21	0.0146
Observations	32	32	32	32	32	32

Source: Processed Data (2024)

Table 4 presents summary statistics for the dependent and independent variables. The average Z-score of the sample is 4.23, ranging from 0.43 to 5.07, indicating significant variability in bank stability. Similarly, the average ROA is 0.02, ranging from 0.006 to 0.026. The average TA is 25.005, ranging from 24.239 to 25.884, indicating significant variation in bank size. The average NPF is 0.01, ranging from 0.0009 to 0.0360. The average GDP is 1.61E+11, ranging from 1.35E+11 to 1.84E+11. Inflation has a mean of 0.008, ranging from -0.035 to 0.035.

Table 5
Hypothesis analysis results

	Variables	**Indonesia**	**Malaysia**	**UAE**	**Qatar**
Bank Variables	ROA	1.7481*	8.0942**	15.1088***	6.4003
		(0.0609)	(0.0198)	(0.0000)	(0.1820)
	Assets	-0.1737***	-0.2580***	-0.0236	-0.1843**
		(0.0009)	(0.0000)	(0.7408)	(0.0244)
	NPF	-1.4151**	2.5799	0.6666	1.6677
		(0.0180)	(0.1073)	(0.4674)	(0.4859)
Macro Variables	GDP	0.0000***	0.0000***	0.6098	0.0000
		(0.0020)	(0.0000)	(0.5453)	(0.7708)
	INF	-0.9602	0.3023	-1.0374	0.8055
		(0.5148)	(0.6943)	(0.2320)	(0.3330)
R-Squared		0.4688	0.3285	0.3600	0.9927
Prob (F-Statistic)		0.0000	0.0000	0.0016	0.0000

Source: Processed Data (2024)
*: Significant at 10% level (p < 0.10)
**: Significant at 5% level (p < 0.05)
***: Significant at 1% level (p < 0.01)

Based on the analysis in Table 5, several variables have a significant effect on the stability of Islamic banking in four countries: Indonesia, Malaysia, the United Arab Emirates (UAE), and Qatar. The ROA variable shows a significantly positive effect on Islamic banking stability in Malaysia, with a significance level of 0.0198, and the UAE, with a significance level of 0.0000. At the same time, it does not significantly affect Indonesia and Qatar. The asset variable has a significantly negative effect on Islamic banking stability in Indonesia, with a significance level of 0.0009; Malaysia, with a significance level of 0.0000; and Qatar, with a significance level of 0.0244. However, it is not significant in the UAE. The NPF variable only has a significant negative effect in Indonesia, with a significance level of 0.0180, while it is not significant in Malaysia, the UAE, and Qatar. The GDP variable has a significant positive effect on Islamic banking stability in Indonesia and Malaysia, with significance levels of 0.0020 and 0.0000, respectively, but it is not significant in the UAE and Qatar. The inflation variable does not have a significant effect on the stability of Islamic banking in any of the four countries. However, its coefficient shows a negative sign, indicating a potential negative correlation.

DISCUSSION

Based on the analysis above, the ROA variable positively affects the stability of Islamic banking in Malaysia and the UAE. This indicates that the efficient use of assets enhances a bank's ability to fulfill financial obligations and strengthens its capital. Moreover, Islamic banks that have ultimately increased their capital are less likely to go bankrupt. This suggests that profitability improves a bank's capacity to meet its financial obligations and enhances its ability to withstand risks. These findings align with the research by Adusei (2015), Ali and Puah (2019), and Vo et al. (2021), which shows that profitability, as indicated by ROA, positively impacts banking stability. Meanwhile, ROA does not affect the stability of Islamic banking in Indonesia and Qatar.

The total assets (TA) variable harms the stability of Islamic banks in three countries: Indonesia, Malaysia, and Qatar. These findings indicate that increasing assets can increase the risk of bankruptcy. Alternatively, larger banks may be more vulnerable to risks associated with loans to corporations and large projects, which can weaken their stability. On the other hand, larger banks tend to be more profitable and capable of providing more financing than the smaller ones if the banks are able to manage the quality of the assets. Some research mentions that big assets are not necessarily more stable (Miah & Uddin, 2017). Meanwhile, in the UAE, the total assets variable does not influence stability because the size of a bank's assets, whether large or small, does not necessarily determine banking stability. This is because banks can control assets; the greater the bank's assets, the greater the risk and capital management challenges. It aligns with the findings of Wahid and Dar (2016) and Yudaruddin (2018), which state that larger bank size does not always increase stability, whereas smaller banks are often more stable due to easier control, better monitoring, and smoother operations with lower risks. Altaee et al., (2013) tested banking

stability in GCC countries and found that bank size, represented by total assets, does not have a statistically significant impact on stability.

The Non-Performing Financing (NPF) variable negatively impacts the stability of Islamic banking in Indonesia. This suggests that a lower NPF ratio leads to greater stability in Islamic banks because it reduces their exposure to bankruptcy risk. This result is linear with the findings of Alam (2013) and Othman et al., (2023), which indicate that a larger loan loss provision enhances a bank's ability to manage default risks during unfavorable conditions. Meanwhile, in other countries, the NPF variable does not significantly affect the stability of Islamic banks, as Islamic banking operates on a profit-sharing principle that reduces NPF risks. Islamic banks also use collateral in the form of real assets and ensure strict supervision for Shariah compliance, exercising greater caution when selecting business ventures. Portfolio diversification also helps mitigate risks. However, despite having lower NPF ratios, Islamic banks must still carefully manage this risk to maintain their stability. In the other three countries, the NPF results are not significant, which means NPF does not affect bankruptcy, contrary to the findings of Das (2015) and Islam et al. (2020).

The macroeconomic variables in this study are GDP and inflation. GDP positively impacts Islamic Bank stability in Indonesia and Malaysia. The GDP growth rate is positive and significant, indicating that, generally, the increase in GDP will improve Islamic bank stability. Strengthened GDP reflects the ability of customer income while indirectly making a banking business smooth and positive, and banks' capital adequacy ratio improves along with the economic conditions. This result aligns with the findings of Boateng et al. (2015), Karim et al. (2016), and Yensu et al. (2021) which document a positive relationship between GDP growth and banking stability. However, it contradicts the findings of Ali and Puah (2019) and P. Ozili (2019), which report a negative relationship between GDP growth rates and bank stability. Meanwhile, GDP does not impact the UAE and Qatar, which is consistent with the research by Al-Khouri and Arouri (2016).

Additionally, inflation does not influence the stability of Islamic banking in the GCC and Malaysia. However, this is still in line with the theory that inflation negatively correlates with bank stability, as evidenced by the negative coefficient sign. The lack of influence of inflation on Islamic bank stability is due to the relatively stable inflation conditions in these countries during the observation period following the post-financial crisis in 2008. These findings align with the study by Cihak and Hesse (2010), which explains that among macroeconomic variables, depreciation tends to significantly impact banking risk, particularly when domestic currency depreciation erodes the balance sheet positions of banks holding foreign currency assets.

CONCLUSION

This study examines the determinants of Islamic banking stability in the GCC and Southeast Asia. Using a sample of 38 Islamic banks in Indonesia, Malaysia, the UAE, and Qatar, the results show that profitability enhances the stability of Islamic banking in Malaysia and the UAE. Additionally, smaller bank size is consequential to Islamic banking

stability, indicating that smaller Islamic banks are more resilient. In this study, the NPF variable negatively affects Indonesia but does not essentially influence Islamic banking stability in the other three countries. The GDP macroeconomic variable has a significant positive impact, while inflation does not affect the stability of Islamic banks.

The GCC and Southeast Asia differ in terms of regulations, development, and practices. Therefore, each region has its own mission and focus on the growth and development of its Islamic banking sector. However, both regions operate dual banking systems. The Islamic banking industry in both regions strives to offer a diverse range of simple, innovative, and competitive products while maintaining profitability. Increased funding positively impacts profitability, thus maintaining the stability of Islamic banking. For GCC countries to enhance banking stability, government intervention is needed to stimulate economic growth and wisely focus on non-oil sector GDP to diversify national income, reducing risks from macroeconomic factors that are essentially related to income volatility. For the Southeast Asian region, authorities need to strengthen banking frameworks to support Islamic finance products by encouraging broader use of risk-sharing instruments. Besides utilizing debt-based financing structures, Islamic banks should also emphasize equity financing to strengthen banking sector stability. For Indonesia, Islamic banks are recommended to offer equity financing consistently and maintain asset quality to remain stable.

This study is limited to a sample of 38 Islamic banks in four countries, covering data from 2013 to 2020. Future research could expand the sample size and include more countries, such as other GCC and Southeast Asian members, to increase the generalizability of the findings. Additionally, considering larger banks and including other relevant macroeconomic and regulatory variables would provide a more comprehensive understanding of the factors influencing Islamic banking stability. Further studies could also explore the impact of more diverse financial products and the role of corporate governance on the stability of Islamic banks across various economic conditions.

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