

## Banks' Performance Amid the Unexpected Crises: An Assessment from Malaysia's Islamic Banks

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**Abstract:** Islamic banks play an important role in Malaysia's financial system by offering various services to individuals, businesses, and governments. Nonetheless, as the world confronted unprecedented crises the Islamic banks faced a new set of tests that would not only define their performance but also underscore their adaptability and durability. This paper aims to evaluate the impact of unexpected crises on the performance of Islamic banks. It also delves into various Islamic bank's key characteristics that might influence the Islamic bank performance such as capital adequacy, bank size, credit risk, and non-interest income. Data spanning from 2000 to 2022 and covering seven (7) Islamic banks are utilized using the panel static method. It reveals that bank characteristics such as capital adequacy, credit risk and non-interest income significantly impact Islamic bank performance. Nonetheless, deposit and bank size do not influence Islamic bank performance. The major highlight of the unexpected crises depicts a negative relationship with bank performance nonetheless it is not significant. This finding supports the claim that Islamic banks remain largely unaffected by unexpected crises. Therefore, a comprehensive understanding of these factors is crucial for policymakers, investors, and bank stakeholders to assess the health and performance of Islamic banks.

**Keywords:** *Islamic bank, bank performance, bank characteristics, financial crises, panel data*

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### 1. Introduction and Background

Islamic banking in Malaysia has experienced remarkable growth, establishing itself as a significant and dynamic segment of the global financial industry. They offer a unique and ethical approach to banking and finance that aligns with Shariah principles, Islamic banking institutions in Malaysia operate alongside conventional banks in harmony. These institutions play a pivotal role in fostering economic growth, encouraging responsible financial practices, and contributing to Malaysia's status as a global hub for Islamic finance. The banks' performance is crucial for Islamic banks to achieve profitability and maintain their stability and sustainability. Basri, Muhamat and Jaafar (2019) highlighted that Malaysia's Islamic banking has been well received by customers since its establishment thus increasing growth performance which has been the hallmark of Islamic banking in various countries.

The performance of Islamic banks in Malaysia is a subject of immense significance, as it serves as a barometer of the health of the Islamic finance sector and an indicator of the broader economic landscape. The term performance refers to a subjective measurement of a bank's execution or achievement. Jayasekara et al. (2020) stated that bank performance is evaluated from a variety of perspectives, using both financial and non-financial measures. Islamic banks are different from other kinds of businesses in the way they act as an intermediary between depositors and borrowers but rather they act more as share partners for the banks to remain competitive to thrive in the long run period. Besides that, Islamic banks have a unique resilience to crises, given their operational models and ethical considerations.

In Malaysia, Islamic banks are one of the businesses in a developing country with the biggest market in Southeast Asia facing Islamic financing. Bank Islam Malaysia, Maybank Islamic, and CIMB Islamic are the top three strongest Islamic banks in Malaysia. Among them, Maybank Islamic stands out as one of the most successful financial institutions, with total assets of \$64 billion. It dominates the Malaysian market, controlling over 30% of both the Islamic banking sector and market share (Stubing, 2021). Maybank Islamic offers a wide range of Shariah-compliant products and services through an extensive network spanning Malaysia, Singapore, Indonesia, Hong Kong, New York, and Dubai.

The COVID-19 pandemic sent shock waves through the global economy, triggering the most significant economic crisis in over a century (The World Bank, 2022). The pandemic's impact is far-reaching, influencing society, the global economy, and lots of other areas, causing practically every aspect of people's lives to change

(OECD, 2022). The profits of most banks in the world have been greatly affected by this pandemic. Throughout the pandemic, central banks around the world, including Malaysia, lowered interest rates to boost economic growth (BNM, 2020). As the world confronted unprecedented challenges such as the Global Financial Crisis and the COVID-19 pandemic, Islamic banks encountered a new set of trials that would both shape their performance and highlight their resilience and adaptability amid economic turbulence. As Islamic banking's behavior during crises is less studied compared to conventional banking, therefore this paper aims to evaluate the impact of unexpected crises on Islamic banks' performance.

## 2. Literature Review

Research on Islamic Banks has gained much attention, especially in explaining the influence of the key bank's characteristics on Islamic bank performance. Several studies have been done worldwide such as in Pakistan (Ijaz, Akmal & Gillani, 2015), Jordan and Syria (Ramadan, 2011) and the Gulf Cooperation Council (Al-Damir, 2014). Abdullahi and Yusuf (2022) conducted a similar study in the context of Nigeria. In Malaysia, numerous researchers have explored this topic, including Wasiuzzaman and Tarmizi (2014), as well as Sahari and Ubaidillah (2017). Most of these studies used return on assets (ROA) or return on equity (ROE) as proxies for measuring bank performance.

The internal bank characteristics such as capitalization and bank size the widely used key characteristics in the previous studies of bank performance. Saad, Abdul Majid and Rozali (2012), along with Wasiuzzaman and Tarmizi (2014), found that capitalization is negatively and significantly related to bank performance, while bank size has an insignificant effect. These findings align with Husain, Affandi and Abdul Shukur (2015) who examined 16 Islamic banks in Malaysia. Conversely, Khan, Ijaz and Aslam (2014), as well as Kanwal and Nadeem (2013), reported that bank size is positively related to bank performance but negatively related to capitalization. A study has been one on the determinants of profitability for conventional commercial banks listed on the Indonesia Stock Exchange. This study conducted by Serly (2021) revealed that bank size has a negative significant relationship with ROE, while capital adequacy shows a positive but insignificant relationship with ROE. Serly (2021) also found that deposits have a positive and significant relationship with ROE. The higher the deposit will lead to higher Islamic bank performance. This is supported by Abdullahi and Yusuf (2022) who have studied the case in Nigeria bank deposit. This study found that there is a positive and significant influence on Islamic banks' financial performance. However, studies by Khan, Ijaz, and Aslam (2014), Wasiuzzaman and Tarmizi (2014), and Kanwal and Nadeem (2013) revealed an inverse relationship between deposits and bank performance. The more money deposited in the bank there will be fiercer deposit competition which leads to a lower profit rate. This will consequently reduce the ROA for Islamic bank for Islamic banks.

Credit risk is a crucial internal bank characteristic in influencing the bank performance. Credit risk has an impact on bank stability independently, and their interplay makes banks more unstable. Kaaya and Pastory (2013) aimed to determine the relationship between credit risk and bank performance. Using a regression model to compare indicators of credit risk and performance, it is found that a negative relationship between credit risk and bank performance. This indicated that a higher credit risk leads to poorer bank performance. Similarly, Abdellehi et al. (2017) showed that credit risk had a significant impact on return on assets, a key profitability indicator. In contrast, Abdullahi and Yusuf (2022) reported a positive relationship between credit risk and bank performance in Nigeria.

Kohler (2014) and Karakaya and Er (2013) stated that banks with a higher share of non-interest income tend to exhibit higher performance. This is supported by Williams (2016) who examined the impact of non-interest income on Australian banks. This study revealed a direct relationship between higher non-interest income and increased risk, which affected bank performance. Alhassan and Michael (2017) investigated the effect of non-interest revenue on MENA banks and also concluded that it positively influenced bank performance. Contrary, several studies (Meslier et al., 2014; Salike & Biao, 2018, & Phan et al., 2023) found that a decline in non-interest income reduces profitability and leads to inefficient performance. Studies by Lee et al. (2014) and Sun et al. (2017) also depicted a negative relationship, indicating that excessive reliance on non-interest income increases risk and, consequently, lowers profitability. Similarly, Abu Khalaf, Awad, and Ellis (2024) revealed that non-interest income significantly influences the profitability of banks in the MENA region across all three

static panel models.

The major issue of this paper is unexpected crises. There is substantial literature on the area of unexpected crises (Muda et al, Almanaser, 2014; Ahmad and Ali, 2014; Ahmad and Abdul Majid, 2017, Ahmad et al 2018). The term unexpected crises refers to unexpected and unpredictable situations or events that cause a sudden halt in the economy (Arjen, 2009, Justin & Volker, 2012). These crises are found an important part of how the economy reacts and how severe its impact is on others, especially in financial institutions. Malaysia has been experiencing several impact of unexpected crises involving the economy and finance, including the most recent which is the pandemic crisis. Despite the different features and challenges shown by the different crises, however, the effect of the crises was found as critical, as they severely affected the economy and banking system of the country.

Focusing on unexpected crises and bank performance, Muda et al (2013), Tiemsani and Al Suwaidi (2016), Mongid (2016) and Ibrahim (2020) found there is a significant impact of unexpected crises on Islamic banks' performance. Mongid (2016) explored the determinants of profitability for Islamic banks in the MENA region and assessed the effects of the global financial crisis on their performance. The findings indicated that the GFC negatively influenced Islamic banks' profitability. In parallel with Mongid (2016), Ibrahim (2020) also showed that the crisis had a significant adverse impact on the performance of Islamic banks in the UAE. The most severe effects were observed in 2008 and 2009. Similarly, Almanaseer (2014) examined the impact of the financial crisis on Islamic bank profitability in GCC countries. Analyzing data from 24 banks over the period 2005-2012, the study found that the crisis had no significant effect on Islamic bank profitability. This conclusion is further supported by Ahmad et al. (2018), who studied 16 Islamic banks in Malaysia. It was found that their profitability remained unaffected by the financial crisis. These studies suggest that Islamic banks may be immune to unexpected financial crises.

### 3. Research Methodology

In investigating Islamic bank performance, internal bank characteristics are used to estimate the relationship. Return on Asset (ROA) represents the Islamic bank's performance. The use of ROA as a measure of bank performance followed many studies such as Abdullahi and Yusuf (2022) and Phan et al. (2023). According to Ghosh (2019), ROA is a valuable indicator of a bank's profitability as it reflects how effectively a bank manages its assets to generate earnings. Moreover, ROA provides a comprehensive assessment of a bank's performance by incorporating the impact of income generation, asset utilization, and risk management (Khalaf et al., 2024). Therefore, ROA is an appropriate measure to assess the performance of Islamic banks. A negative ROA also supports the hypothesis under consideration.

To measure the variation in the bank performance, the credit risk (CR), deposit (DEP), Bank size (BS), Non-interest income (NII), and lagged bank performance (ROA(-1)) are added to the model. The Unexpected Crises (UNEXC) for the Global Financial Crisis and the pandemic of COVID-19 crisis are used to estimate the impact on Islamic bank performance. The dummy variables of UNEXC were included to indicate the period of the Global Financial Crisis and Pandemic crisis (COVID-19). These variables are assigned a value of 1 during the crisis periods and 0 otherwise, resulting in a sequence of isolated 1s surrounded by 0s. Consequently, the estimation model is structured as follows:

$$ROA_{i,t} = \alpha - \beta_1 CA_{i,t} + \beta_2 CR_{i,t} + \beta_3 DEP_{i,t} + \beta_4 BS_{i,t} - \beta_5 NII_{i,t} + \beta_6 ROA(-1)_{i,t} - \beta_7 UNEXC + \epsilon_{i,t} \quad \text{Equation (1)}$$

Three-panel static models are tested to obtain the final results: the Pooled Ordinary Least Squares Model (POLS), the Random Effect Model (REM), and the Fixed Effect Model (FEM). The equation for the Pooled Ordinary Least Squares Model is:

$$Y_{i,t} = \alpha + \beta_1 X_{i,t} + \epsilon_{i,t} \quad \text{Equation (2)}$$

As an alternative the Random Effect Model is expressed as;

$$Y_{i,t} = \alpha + \beta_1 X_{i,t} + (\epsilon_{i,t} + \mu_{i,t}) \quad \text{Equation (3)}$$

To determine whether to use the Pooled Ordinary Least Squares Model or the Random Effect Model, the Breusch-Pagan Lagrangian multiplier test is applied. The hypotheses for this test are;

**H0:** Choose Pooled Ordinary Least Square Model

**H1:** Choose a Random Effect model

If the probability of  $\chi^2$  is less than 0.05, H0 is rejected, and the Random Effect Model is selected. The study can also be extended by using the Fixed Effect Model, represented by the equation;

$$Y_{i,t} = \alpha_i + \beta_1 X_{i,t} + \epsilon_{i,t} \quad \text{Equation (4)}$$

If the analysis proceeds to decide the model of Random Effect Model or Fixed Effect Model another test of Hausman Fixed Test is applied. The hypothesis of the Hausman Fixed Test is;

**H0:** Choose a Random Effect Model

**H1:** Choose Fixed Effect Model

If the  $\chi^2$  probability is less than 0.05, H1 is accepted, and the Fixed Effect Model is selected.

The panel data set used in the analysis was obtained from Eikon Thompson. The data is collected annually with the data consisting of 154 observations. This data covered a period from 2000 to 2022, totaling 22 years. There are 16 Islamic banks in Malaysia including both fully-fledged Islamic banks and Islamic windows of conventional banks. The sample of the study includes seven (7) Islamic banks. These banks are chosen based on their significant market share and availability of accessible and detailed financial data over the crisis periods.

#### 4. Results

This study used panel data with a series of tests to determine the appropriate model for the analysis Three estimation methods in panel data statistics namely Pooled Ordinary Least Squares (POLS), Random Effects (REM), and Fixed Effects (FEM). In determining whether the POLS or REM model is more suitable, the Breusch-Pagan Lagrange Multiplier (LM) test was performed. Due to the high Chi-squared ( $\chi^2$ ) statistic, the null hypothesis was rejected, favoring the FEM model.

The Hausman test was then employed, calculating the p-value ( $\text{Prob} > \chi^2$ ) to decide between the FEM and REM. The results indicated that the REM is appropriate. The Hausman test revealed that the probability is more than 0.05 and there is insignificant variation within entities over time that would be captured by the Fixed Effects Model. Table 1 provides a summary of the results from the Random Effects Model.

**Table 1: Summary of the Random Effect Model**

VARIABLE	COEFFICIENT	S.E	T STAT	PROB
C	1.4732	0.2233	6.5972	0.0000
CA	-0.0309	0.0123	-2.5133	0.0131
CR	-0.0262	0.0082	-3.1781	0.0018
DEP	-0.0017	0.0035	-0.5010	0.6171
BS	0.0001	0.0002	1.5424	0.1252
NII	-0.2736	0.1383	-1.9772	0.0499
ROA(-1)	0.2894	0.0790	3.6616	0.0004
UNEXC	-0.0675	0.0751	-0.8977	0.3708
<b>R<sup>2</sup> = 0.21664</b>				
<b>F Stat = 5.7287 (0.000)</b>				

Based on Table 1, the R-squared value for the RE models is 0.2166 indicating that it is possible to explain 21.66% of the variation in ROA by the models. The F-statistics in the model are significant at the  $p < 0.01$  level, verifying the overall significance of the model.

Capital adequacy (CA) is expected to have either a positive or negative impact on the performance of Islamic banks. This study revealed that significant negative bank profitability is found at a 0.05% significance level. The finding is parallel with some authors (Saad et al., 2012; Wasiuzzaman and Tarmizi, 2014; Abdullahi and Yusuf, 2022) who argue that high capital adequacy can increase their vulnerability. According to this perspective, there will be a negative relationship between capital adequacy.

Another Islamic bank characteristic, credit risk indicates a negative relationship with Islamic bank performance at a highly significance level (1% level of significance). It depicts that the higher the credit risk the lower the profitability of Islamic banks. The finding is in parallel with Kaaya and Pastory (2013) and Abdullahi and Yusuf (2022). The credit risk serves as an indicator of asset quality. This will be associated with the additional cost of monitoring expenditure. If the additional costs for managing the credit risk increase the bank's operating expenses also increase, which in turn reduces returns.

The negative coefficient for deposits (DEP) suggests that a higher DEP leads to lower Islamic bank performance. The estimate indicates that a 1% increase in DEP would raise ROA by 0.0017%, contradicting the expected direction of the relationship. However, DEP is statistically insignificant (p-value = 0.6171). While, Bank Size (BS), on the other hand, shows a positive relationship with ROA, as expected, though it is also statistically insignificant (p-value = 0.1252). The random effects finding suggests that an increase in bank size improves Islamic bank performance. Despite the high expectations for BS to influence the variation in Islamic bank performance, it does not have a significant effect on ROA in Malaysia's Islamic banks.

Non-interest income (NII) is regarded as a key determinant of profitability, showing strong statistical significance at the 5% level. However, it yields a negative relationship between NII and bank performance. The result is against the popular hypothesis of a positive relationship. It is found that the finding is similar to Lee et al (2014) and Sun et al. (2017). It shows that the higher NII will decrease the profitability as well as increase the risk of saving. When there is too much dependency on non-interest income will lead to higher risk and therefore will lower profitability. The previous performance of Islamic banks (ROA (-1)) significantly the current bank performance amid financial crises. It is found that ROA(-1) has a positive impact on ROA and significantly influences Islamic bank performance at a 1% significance level. It is revealed that the actual ROA is significantly impacted by the lagged indicators (historic) of existing Islamic bank performance.

The major highlight of this study is the unexpected crises (Global Financial Crisis and the Pandemic crisis of COVID-19). It is revealed that unexpected crises did not significantly influence Islamic bank performance as expected. The relationship between financial crises and the profitability of Islamic banks aligns with the expected negative correlation. Crises can reduce Islamic banks' funding due to lower personal savings and declining corporate profits, affecting their investment and financing activities, while increasing exposure to additional risks. Moreover, certain instruments like options and bonds become less accessible during such periods, further impacting profitability. However, consistent with previous findings (Hidayat and Abduh, 2012; Almanaseer, 2014; Ahmad et al., 2018), this study confirms that unexpected crises do not significantly affect the performance of Islamic banks. This supports the view that Islamic banks remain resilient during unforeseen events such as the Global Financial Crisis and Pandemic crisis (COVID-19).

## 5. Conclusion

With the emergence of COVID-19 which is considered an unexpected crisis, there are many claims that the Islamic banks' challenges escalated in Malaysia. Summarizing from the literature review, it is found there are mixed results of the unexpected crises on Islamic bank performance. Nonetheless, the unexpected crises together with Islamic bank characteristics play a fundamental role in determining a bank's overall performance in Malaysia. Therefore, this study evaluates the impact of unexpected crises and Islamic bank performance in Malaysia. Based on the findings, bank characteristics such as capitalization, credit risk, non-interest income, and previous bank performance are just a few of the key factors that significantly influence the Islamic bank's performance. The highly significant influence of bank characteristics creates an influence on an Islamic bank's ability to generate profits and contribute to financial stability. Besides that, the unexpected crises such as Global Financial Crisis and COVID-19 fail to depict a significant impact on Islamic banks' performance. From the findings, it can be concluded that Islamic banks in Malaysia have demonstrated resilience during unexpected



crises due to their unique financial structures and adherence to ethical principles. Therefore, the finding supports the claims that Islamic banks are unharmed by the unexpected event. However, they still face challenges in terms of bank performance and must continue to adapt to changing economic conditions and technological advancements. It is suggested that bank regulators and policymakers must closely monitor these characteristics to ensure the stability of the performance of Islamic banks. Investors and stakeholders also can analyze these characteristics to make informed decisions regarding their involvement with Islamic banks. Future research should explore these challenges further and assess the long-term implications of the solely unexpected crisis of the COVID-19 pandemic on Islamic banking in Malaysia.

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