EMPIRICAL ANALYSIS ON THE INFLUENCE OF INTERNAL AND EXTERNAL PARAMETERS OF ISLAMIC BANKS FINANCIAL PERFORMANCE: EVIDENCE FROM MALAYSIA

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Abstract

This study aimed to identify the influential parameters of financial performance among Islamic banks in Malaysia. In this study both, internal and external factors that may influence the Islamic banks financial performance were applied; the data for this study are Panel data. It comprises of panel dataset of 16 Islamic banks operating in Malaysia. Data were compiled from the DataStream Database for the period of 2009 to 2019; altogether, there are 176 observations (nT). This study applies a quantitative research methodology, which includes a numerical measurement and analysis of the factors which influence the Islamic banks financial performance. The results show that only internal parameters (Assets Quality, Liquidity, and Bank Size) are significant parameters in the determination of the Islamic banks financial performance in Malaysia. On the other hand, the results showed that for the external parameters only GDP Growth Rate positively influences the Islamic banks financial performance while (Inflation and Interest rate) aren't significant parameters in The determination of Islamic Banks financial performance in Malaysia.

Keyword: Islamic Banks, Financial Performance, Assets Quality, Bank Size, GDP Growth Rate, Panel Data.

1.INTRODUCTION

The performance of the financial system has big influences on the growth of Islamic banking. According to Samail et al. (2018) financial performance plays an important role in the economic in the whole country. Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished (Abubakar & Aduda, 2017). It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

In Malaysia, The establishment of Bank Islam Malaysia Berhad (BIMB) in July 1983 marked a milestone for the development of the Islamic financial system in Malaysia. BIMB carries out banking business similar to other commercial banks, but along the principles of Islamic laws (Shariah). Bank Muamalat Malaysia Berhad (BMMB) was the second full-fledged Islamic bank established in 1999. Moreover, in 2004, the Malaysian central bank permitted the foreign banks to function and offer Islamic banking products and services in Malaysia with the purpose to broaden global connections and encourage greater competition as well as enhance the efficiency of national Islamic banking industry (Central Bank of Malaysia, 2005). In the same year, the central bank of Malaysia licenses conventional banks' Islamic windows to transform into full Islamic banking mode. Currently, the banks endorsed under the Islamic Banking Act 1983 from the previous act, the Banking and Financial Institutions Act (BAFIA) 1989.

Currently, there are 11 conventional banks that functions under the Islamic subsidiary, namely; CIMB

Bank, RHB Bank, Ambank, Maybank, Affine Bank, Public Bank, Hong Leong Bank and Alliance Bank. This also comprises foreign banks functioning with both Islamic and conventional system. The overseas conventional banks under the Islamic subsidiary in Malaysia are HSBC, Standard Chartered, and OCBC. These Islamic subsidiaries of conventional banks were established to escape uncertainties of Islamic banking operations and to improve the legitimacy of the profits generated (Possumah & Ahmat, 2018).

Bank Negara Malaysia (BNM) reported that Malaysia's Islamic Finance segment mentioned its growth momentum in 2015, with its Islamic banking asset expanding greatly from year 2014, accounting for 20.7 percent of the total assets of the overall banking system in 2015. According to the annual report of IFN (2016), there are 17 fully-fledged IBs in Malaysia. Growing at an average of 18% year-on-year, Islamic banking assets account for approximately 23.27% of the country's total banking sector at the end of 2016 at US$125.5 billion (22.36% in 2015), according to the latest statistics by BNM. The country intends to almost double that to 40% by 2020. As at end of 2019, financing by Islamic financial institutions accounted for 39.2% of total banking sector financing (2018: 37.7%). Total funds placed with Islamic banks now represent 38.0% of total banking sector deposits (2018: 36.6%) (BNM, 2019). The current study will look into the issue of the fluctuations, slow growth and decline in the profitability level among Islamic Banks in Malaysia. Additionally, the main Objective of this paper is to identify the internal and external factors that influence the financial performance of Islamic banks in Malaysia.

Accordingly, the rest of this paper includes the literature Reviews, followed by data and methodology. Next, it will presnet the findings and analysis followed by the discussion of the findings. In the last part, it will present the conclusion for this paper.

2. LITERATURE REVIEW

Previous scholarly works on bank performance and profitability have discussed the effect of attributes including firm specific variables and macroeconomic variables as important determinants of bank profitability. Among Islamic banks operating in several countries, Haron and Azmi (2004) examined the impact strength that was present between both internal and external variables and profitability. The authors employed techniques of time-series of co-integration and error-correction mechanism for data analysis, and the results implied an important long-run relationship existing between profitability measures of Islamic banks and the determinants namely assets structure, liquidity ratios, deposit items, money supply and inflation. Meanwhile, Samad (2004) in Bahrain looked into comparative financial performance of Islamic banks and their conventional counterparts for the 1991-2001 periods. Based on the results, the author found no significant difference in terms of profitability and liquidity, between Islamic banks and their conventional counterparts.

Idris et al. (2011) in Malaysia looked into the profitability of Islamic banks through the examination of the impact of internal variables on the banks' profitability. A total of nine Islamic banks were used as sample and the data obtained were from the 2007-2009 period. In this study, capital ratio (total equities), credit risk (allowances for doubtful debt), liquidity (total loans), bank size (total assets), and expense management (total expenses) were the employed internal factors. Furthermore, the logarithmic values of the variables were used, making this study distinct from other comparable studies, as other studies employed the same variables in ratio form. Meanwhile, profitability was measured using ROA, and it was concluded in this study that for Islamic banks, there is a positive and statistically significant impact of bank size on profitability. The positive effect of total equities and loans on profitability was also reported. In addition, the authors found a negative effect of credit risk and expense management on Islamic banks profitability.

Hamid and Azmi (2011) examined Bank Islam Malaysia Berhad (BIMB), an Islamic bank in Malaysia, in terms of its financial performance. For the purpose, the authors employed the data from the 2000-2009 periods. Comparison was also made between BIMB and interest-based conventional bank. In this study, the authors used profitability, risk and solvency, liquidity, and community involvement of the bank, in measuring financial performance of the bank. The obtained results implied insignificant difference between Islamic and

conventional banks. Furthermore, the attained results showed that the essential mode of Islamic banking, that is, profit and loss sharing, showed no significant bearing on BIMB's portfolio of financing.

Sanwari and Zakaria (2013) in their study examined the performance of Islamic bank. Specifically, the study was looking into the impact of both internal conditions and the external factors on the performance of Islamic banks. This study employed panel data of 74 Islamic globally from the 2000-2009 period. The data were obtained from the annual report on Islamic banking, obtained from Bank Scope database. The authors concluded from the findings that the performance of the examined banks was greatly impacted by the specific characteristics of the bank including capital, assets quality and liquidity. Conversely, the macroeconomic factors showed insignificant impact on the profit of Islamic banks.

3. DATA AND METHODOLOGY

The data for this study are Panel data, also called longitudinal data or cross-sectional time-series data. Panel data give more informative data, more variability, less collinearity among the variables, more degrees of freedom and more efficiency (Park, 2011). The use of panel data results in a greater availability of degrees of freedom and hence increases efficiency in the estimation (Brooks, 2019). In addition, the data for this study are collected from the DataStream Database. It comprises of panel dataset of 16 Islamic banks operating in Malaysia, The study period includes eleven years from 2009 to 2019. Altogether, there are 176 observations (the total number of observations is (nT). To identify the Influential Parameters of Financial Performance among Islamic Banks in Malaysia the study uses internal or bank's specific parameters as well as external or macroeconomic parameters as the country's specific indicators. Data will be analyzed from banks that offer Islamic banking products and services under the Islamic Banking Scheme; the 2009 - 2019 periods is selected to find the latest results on Islamic banks financial performance in Malaysia. As the study is focuses on the performance of Islamic banks in Malaysia, secondary data is used as the data collection method. Secondary data will be extracted from the existing published material in DataStream Database. According to (Creswell & Clark 2018) observations about the recent research methods of academics, they found some advantages of secondary data collecting, it gives high standards of quality as data is checked and updated continuously.

Return on assets (ROA measures will be used to measure the Financial Performance: return on Assets (ROA), which shows the bank management's ability to convert assets to net profit. Table1. Below presents the measurements that were used to operationalize the study variables.

Variable	Measurement	
Financial Performance	*The Return on Assets (ROA) Net income/Total assets*	*Riaz and Mehar (2013); Hassan and Bashir (2003)*
Asset Quality	*(Non-Performing Financing/ Total assets)*	*Setyawati et al. (2015); (Kaushala et al., 2017); (Akhtar & Ahmed, 2011)*
Liquidity	*Total Deposits/ Total Assets*	*Ramlan, H., & Adnan, M. S. (2016); (Kaushala et al., 2017); (Suppia & Arshad, 2019)*
Bank Size	*The Size is measured as the natural logarithms of total assets.*	*(Noman et al., 2015); (Rashid & Jabeen, 2016); (Kaushala et al., 2017); (Asadullah, 2017);(Suppia & Arshad, 2019)*
Inflation rate	*Consumer Price Index annual inflation rate (%)*	*Rashid & Jabeen (2016). Amzal, (2016) Rahaman & Akhter (2015); (Kaushala et al., 2017);(Asadullah, 2017);(Nagaraju & Boateng, 2018)*
Interest Rate	*Lending interest rate (%)*	*Rashid, A., & Jabeen, S. (2016). Amzal, C. (2016); (Jordan, 2013)*
GDP Growth Rate	*Annual real Gross Domestic Product, growth rate (%)*	*Amzal, C. (2016); (Hamid et al., 2017); (Asadullah, 2017); (Nagaraju & Boateng, 2018)*

Table 1. The measurements of Variables applied in this study

Moreover, SmartPLS Software is used to analyze quantitative data as it has commands that are more convenient and options for panel data analysis (Awang, Afthanorhan and Asri, 2015). In addition, PLS-SEM offers several applications and is the newest and most efficient model when it comes to graphics (Nardi, 2015). Thus, PLS-SEM is very suitable for exploratory research with secondary data, because it offers the flexibility needed for the interplay between theory and data (Nitzl, 2016). Data analysis will be conducted to produce information that will assist the researcher in addressing the research

issue. Based on the available data set, all data are gathered and transferred to a data sheet using software known as SPSS version 21 and SmartPLS (M3) software for analysis.

4. RESULT AND ANALYSIS

This part presents the findings of this study. To evaluate the research model SmartPLS (M3) was applied to analyze the data collected. This incorporated PLS Algorithm and then bootstrapping. R^2 is evaluated as the main objective of PLS, which is to maximize the explained variance within the endogenous variables. In this regard, the values of the effect fall in the range between 0 and 1, whereby the value of 1 denotes the full predictive accuracy. Furthermore, considering that R^2 is embraced by countless disciplines, researchers are advised to rely on a rough guide in relation to acceptable R^2 values namely 0.25, 0.50, and 0.75. The aforementioned value, according to Hair et al. (2019) correspondingly denotes predictive accuracy levels that are weak, moderate and substantial. It is however mandatory that R^2 values are adequately high to allow the proposed model to attain the smallest possible level of explanatory power (Aliyu & Yusof, 2017). For that reason, the structural model's quality is assessable using the value of R^2. The value demonstrates the variance within the endogenous variable being explained by the exogenous variables. Referring to the outcomes presented in Figure 1; firstly, the R^2 of financial performance was .474. This is a demonstration that Assets Quality, Liquidity, Bank Size, inflation, Interest Rate, and GDP growth rate cumulatively account for 47.4% of the variance in financial performance, indicating that the R^2 value is moderate.

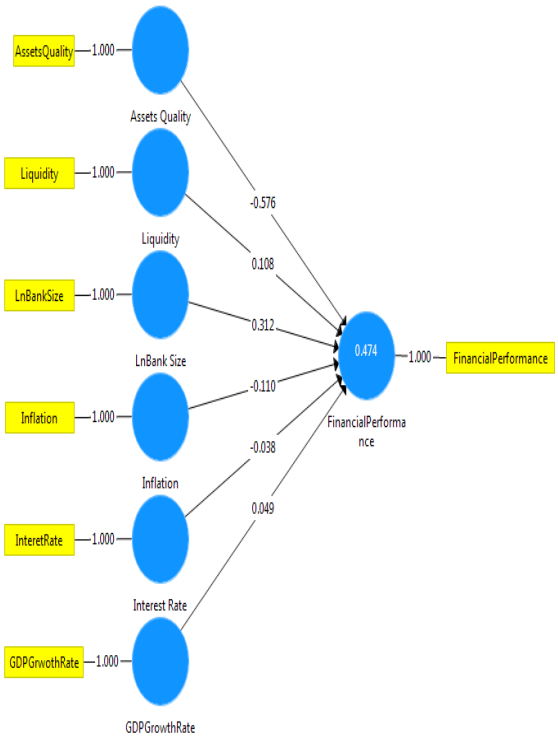

Figure 1. Results of the path analysis and R^2

The final step in PLS-SEM structural model is the execution of test on the hypothesized relationships. For this purpose, the researcher executed the PLS bootstrapping algorithm in SmartPLS (M3). Moreover, for a two-tailed test, the critical t-values appear to be at 1.65 (at 10% degree of significance), 1.96 (at 5% degree of significance), and 2.58 (at 1% degree of significance). This study follows the t-value of 1.96 as its significance level of 5%. Along this vein, the researcher set 300 re-samplings with a replacement number from the bootstrapping cases equal to the original number of sample (165). This will result in standard errors and t-statistics. Figure 2 And Table 2 contain the outcomes of bootstrapping, where the hypothesized relationships below were tested:

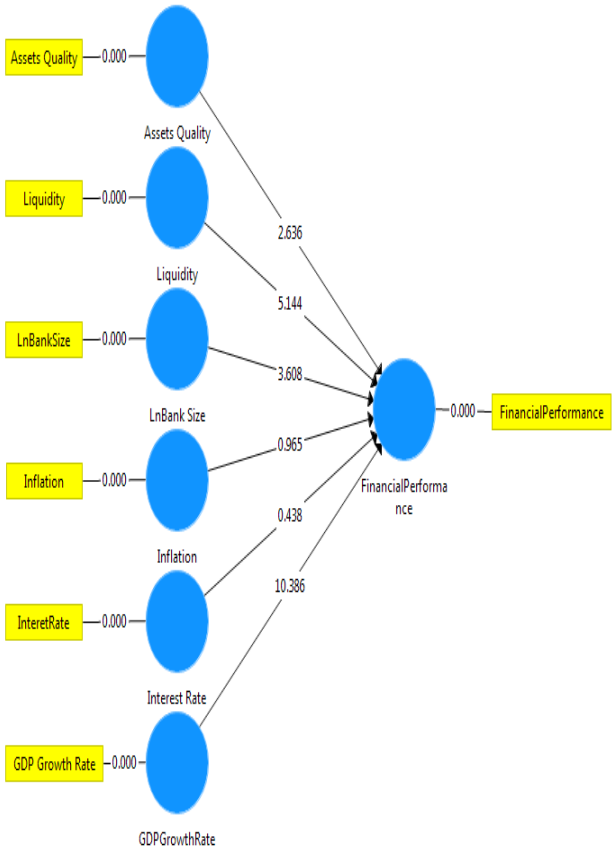

Figure 2. Results of the Model analysis

Next, the results of the hypotheses testing the results showed that the all the internal factors (Assets Quality, Liquidity, and Bank Size), are significant parameters in the determination of Islamic banks' financial performance in ensuring success and in increasing the financial performance of Islamic Banks in Malaysia.
On the Other hand, for external (economics) indicators, it can be clearly seen that all the external variables (Inflation, Interest Rate, and GDP Growth Rate), has no significant relationship with Islamic Banks' financial performance in Malaysia. Hence, Internal Parameters (Assets Quality, Liquidity, and Bank Size) should be presented as main internal factors that determine Islamic banks' financial performance in Malaysia.

Hypothesis of the Study	T-Values	P-Values	Decision
Assets Quality -> Financial Performance	2.636	0.078	Supported
Liquidity -> Financial Performance	5.144	0.014	Supported
Bank Size -> Financial Performance	3.608	0.037	Supported
Inflation -> Financial Performance	0.965	0.406	Not Supported
Interest Rate -> Financial Performance	0.438	0.691	Not Supported
GDP Growth Rate -> Financial Performance	10.386	0.002	Supported

Table 2. Summary of Hypothesis Testing.

5.RESULTS DISCUSSION

Assets Quality: The result of parameter estimate (H1: Assets Quality ▪ Islamic Banks Financial performance; t-value = 2.636, p = 0.078) for this hypothesis appears positive and statistically significant. This finding is in consistency with the previous researchers findings reported by (i.e., Smaoui and Salah, 2012; Sanwari and Zakaria, 2013; Idris et al., 2011; Javaid & Alalawi, 2018; Samail et al., 2018). The reported result above can be justified by the fact that for Islamic banks, asset quality is determined by the quality of credit evaluation, monitoring and collection, all of which can be enhanced through loans collateralization and sufficient provisions against possible losses, or prevention of concentration of asset on one geographical or economic sector. For Islamic banks, their credit risk is usually restrained, and therefore, these banks generally have lower loan Loss provision ratio.

Liquidity: The parameter estimate results for this hypothesis demonstrated a relationship that is positive with statistical significance, where: H2: Liquidity ▪ Islamic Banks' financial performance; t-value = 5.144, p = 0.014). This finding is in consistency with the previous researchers' findings reported by (i.e., Alkassim, 2005; Wasiuzzaman & Tarmizi, 2010; Sanwari & Zakaria, 2013; Ibrahim, 2015). The reported result can be justified by the fact that Islamic banks generally hold more money and are able to lend more money to the public, increasing the potential of the bank in gaining income from loan. In turn, bank's profitability will increase.
Bank Size: The parameter estimate results for this hypothesis demonstrated a relationship that is positive

with statistical significance impacts, where: H3: Bank Size ▪ Islamic Banks' financial performance; t-value = 3.608, p = 0.037). This finding is in consistency with the previous researchers' findings reported by (i.e., Muritala, 2012; Wasiuzzaman & Gunasegavan, 2013; Lee & Kim, 2013; Meero, 2015; Waemustafa & Sukri, 2015; Abduh et al., 2017; Ibrahim, 2015). The findings can be justified by the significant impact of Bank Size on the performance of Islamic banks in Malaysia due to better cost control among Islamic Banks and due to large size of Islamic banks in Malaysia which may lead to economies of scale which will reduce the cost associated with the collection and processing of information or to economies of scope which leads to bigger diversification of Islamic banks products and accessibility to capital markets.

The research also sought to examine the impact of the external factors specifically, (Inflation, Interest Rate, GDP Growth rate) on Islamic Banks' Financial Performance in Malaysia. Inflation: The result of parameter estimate (H4: Inflation▪ Islamic Banks Financial performance; t-value = 0.965, p = 0.406) for this hypothesis appears negative and statistically insignificant. These finding is consistant with the findings of previous studies (i.e., Sufian & Habibullah, 2009; García, 2012; Vu & Nahm, 2013; Defung et al., 2016). These findings are attributed to the fact that inflation will decrease the power of liquidity of the population, causing the population to make less deposit and save less in the financial institutions (including Islamic banks) which will definitely reduce the source of fund that Islamic banks may use it for investment which usually generate income for the Islamic banks.

Interest Rate: The result of parameter estimate (H5: Interest Rate ▪ Islamic Banks Financial performance; t-value = 0.438, p = 0.691 for this hypothesis appears negative and statistically insignificant. This finding is in consistency with the findings of previous studies (i.e., Adebola et al., 2011; Jordan, 2013, Mohamad et al., 2019). These findings are attributed to the fact that high interest rate will lift up the cost of financial institutions including Islamic banks which will cause low demand of financing which defiantly will cause reduction in the profitability of financial institutions including Islamic banks.

GDP Growth Rate: The result of parameter estimate (H6: GDP Growth Rate ▪ Islamic Banks Financial performance; t-value = 10.386, p = 0.002) for this hypothesis appears positive and statistically significant. It can be clearly seen that (GDP growth rate) are the most important external variable that have significant positive impact on the Islamic banks' financial performance in Malaysia. Such finding is in agreement with (Zarrouk et al., 2016; Amzal; 2016) who concluded that Islamic banks show superior performance in environments with high level of gross domestic product and investment. The GDP growth reflects the overall economic activity in a country, and higher GDP growth rates could encourage the demand for bank products which will lead to high profitability and better financial performance.

6. CONCLUSION

As stated above, the current study intended to identify the Influential Parameters of Financial Performance among Islamic Banks in Malaysia. The research used a model that has six variables both three internal and three external that impacting Islamic banks' financial performance in Malaysia. Notably, the empirical analyses have presented fresh relevant findings towards the significance of Islamic banking industry on Islamic banks' financial performance in Malaysia. The internal factors (i.e., Assets Quality, Liquidity, and Bank Size) are important factors in the determination of Islamic banks' financial performance in ensuring the success and increase in the profitability of Islamic Banks in Malaysia. On the other hand, not all the external factors (Inflation, Interest Rate, and GDP Growth Rate) employed in this study were showing significant influential on Islamic banks' financial performance In Malaysia.

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