

## Malaysian Islamic banks performance vs. internal and external characteristics

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### ABSTRACT

The inclusion of global financial markets has put Islamic banks in an intense competition with traditional banks. So, in order to compete in domestic and worldwide deposit markets, this research helps the Islamic banks in order to draw and initiate acceptable instruments that could cope with the remains innovations in financial markets. Specifically, the main purpose of this research is to measure the relationship between the performance among Islamic bank in Malaysia for the time period of 2011 to 2015 and its characteristics, by differentiate both the internal and the external characteristics. Risk Return Theory and Signalling Theory were applied to predict the relationship between the bank characteristics and its performance. From the regression model, the study has found that there was a moderate correlation between internal factors and profitability of Islamic banks in Malaysia. It was also found that there was a positive moderate relationship between the external characteristic and the financial performance among the Malaysian Islamic banks. The findings indicate that Islamic banks should invest in other lines of business such as product diversification and investments to stimulate their stability and contribute to profitability. These findings may enable the managers of the Islamic bank to make the right decision in order to generate outstanding outcomes and supports the bank regulators to make the right option in conducting Islamic banking operation systems.

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## 1. Introduction

The international financial crisis attracts more attention to Islamic banking removing their doubts on functioning of traditional conventional banking. Since the onset of 2008 financial crisis, sector of global Islamic banking and finance has their own growth rate, due to increasing demand for its services. Islamic banking obtaining popularity in emerging markets after contributing some financial organizations to prevent the worst of the economic meltdown. However, there are several initiatives that should be taken in order to improve more on Islamic banking industry.

Nowadays, the argument among researchers about the exact characteristics of Islamic banks and their effect of performance are still protracted. Thus, this study is carried out to figure out the

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connection between internal and external characteristics of Islamic banks and their performance in Malaysia. Many researchers still questioning the issue whether Islamic banks performance is affected by determinants like liquidity, credit risk, capital level, bank size, concentration level and economic condition. Prior researchers namely Al-Tamimi [3] and Sufian [8] engage such study with regards to the relationship between bank performance and profitability. A research by them have found that the bank financial performance as measured by profitability was influenced by both the internal and external characteristics of the bank. However, their study has found contradict relationship among each different bank character with the bank performance.

Hence, in order to fulfil the research gap above, we would investigate the effect of each independent variable (the internal and external character) to the banks' performance and to find out if the variables are significant or not. This research is thus comprising of some question that we need to figure out when conducting the related topic. Thus, the research question that will be the objective of this study are the following:

What factors would affect the Malaysian Islamic banks performance in Islamic banking industry?

Do all the factors affect the Malaysian Islamic banks performance in Islamic banking industry?  
What is the most significant factors that would affect the Malaysian Islamic banks performance in Islamic banking industry?

## 2. Literature Review

Over the past century, there had been increasing number of studies done on determinants affecting profitability of commercial banks. However, there are not many studies done on factors of Islamic banks profitability. Several measures were used among researchers to interpret performance of banks like Return on Equity (ROE) and Return on Assets (ROA) that are used as benchmark or indicator to interpret banks performance. This also involves independent variables such as liquidity (LIQ), credit risk (CR), level of capital (CAPITAL), concentration level (CONCEN), size of the bank (SIZE) and economic condition in Malaysia (ECON). The following table 1 summarizes the related literature on Islamic banking performance and its relevant characteristics.

## 3. Methodology

This research is to investigate the relationship between internal and an external characteristics of Islamic Commercial Banks and their performance in Malaysian banking institutions. Internal characteristics involve indicators related within the bank itself and obtain from financial statement published in the annual reports. Internal factors in this study categorized as a five independent variables, namely liquidity (LIQ), credit risk (CR), level of capital (CAPITAL), concentration level (CONCEN) and size of the bank (SIZE).

On the other hand, another independent variable, which is the external factors are factors that cannot be control by the banks, which come from the external contributions. Studies of financial structure for the industry of banking connect the bank performance to several market constraints. This is because rivalry from another provider of financial services and stock market might affect bank's operations of performance [4].

**Table 1**  
Summary of literature on the factors that influence the Islamic banking performance

No.	Author	Variable	Methodology	Finding
1.	Choong, et al. [5].	- Credit risk. - Liquidity. - Concentration - Capital. - Size of bank. - Economic Condition. - ROA. - ROE.	- Regression model.	- Credit risk is the most significant meaning in performance of local Islamic Commercial Banking in Malaysia.
2.	Abduh, M. & Idrees, Y. [1]	- Bank size. - Capital. - Liquidity. - Credit. - Financial. - Operation efficiency. - Inflation.	- Pooled Regression analysis.	- Bank size is vital in affecting its profitability. - Financial market development and market concentration has a significant positive impact in determining profitability. - The macro-economic variables, inflation has a significant positive impact on Islamic banks' profitability which shows the different nature between Islamic and conventional banks.
3.	Hassan, M. K. & Abdul Hameed, B. M. [8]	- Financial market structure. - Taxation. - Bank size - Leverage. - Loans. - Short term funding. - Overhead.	- Regression analysis.	- High capital and loan-to-asset ratios lead to higher profitability. - Everything remaining equal, the regression results show that implicit and explicit taxes affect the bank performance measures negatively while favorable macroeconomic conditions impact performance measures positively. - There is a strong correlation between profitability and overhead.
4.	Alkhazaleh, A. M. & Almsafir, M. [2]	- Bank capital structure. - Bank size. - Liquidity.	- Fixed effect regression model.	- The capital structure of the bank, the bank size, as well as liquidity, contribute to banks' profitability.
5.	Onuonga, S. M. [9]	- Bank size. - Capital strength. - Ownership. - Operations expenses. - diversification	- Least squares method.	- Bank size, capital strength, ownership, operations expenses, diversification do significantly influence profitability of the top six commercial banks.
6.	Tan & Hamid [13]	- Capital structure	- Pearson correlation & regression analysis	- Correlation coefficient found that all measurement items of capital structure in that study has a significant relationship with performance but regression analysis found that only one measurement of capital structure (total debt to total equity) has significant relationship with performance.
7.	Gatsi [7]	- capital structure is represented by STD, LTD and Total Debt (TD). - GDP, exchange rate and inflation	- Generalized Least Square (GLS) regression	- the impact of capital structure on the profitability is such that short-term debt positively influences profitability and long-term debt negatively affects profitability.

In this research, the economic condition in Malaysia (ECON) is classified and being used as the only independent variable of the external macroeconomic factors. Typically, good economic conditions would enhance not only bank's performance, but also for a country economy as a whole. We expect economic conditions to have positive relationship with performance of bank. GDP (gross domestic product) with high growth rate perceive to have a strong positive effect on the measures of performance. GDP per capita is used as an indicator of Malaysian economy condition and perceive to have limited impact on performance.

### 3.1 Theoretical Framework

The first independent variable that would affecting the banks performance is credit risk whereby credit risk reflects Risk Return Theory where risk that arise from a borrower that might not repay a loan and the lender might lose the loan principal or the interest associated with it. This is because, higher credit risk would result in lower earnings and lower ratios of ROA and ROE. The hypotheses of this variable has been formed and became the first hypotheses in this study. Bank's liquidity and concentration are also referring to contributing factors, but respectively insignificant and thus, become the second and third hypotheses. Bank's liquidity reflects the Bankruptcy Cost Theory where the more loans are taken out as a deposits ratio, the liquidity risk of the banks face increases and negatively influencing banks' earning.

The fourth hypothesis was formed based on capital which reflects Signalling Theory. This involves the leverage which is measured as total equity-to-total assets ratio (CAPITAL). Lower ratio signified higher leverage level. We measure the bank size (SIZE) as total assets of the bank natural logarithm [8]. Based on this, the fifth hypothesis was created which reflects Market Power and Efficiency Structure theories that explain the correlation between the size of bank and profitability. The last hypothesis is the economic condition where it relates to a positive determinant, as predicted, but unexpectedly insignificant in determining performance of Islamic banks. The economic condition represents the external character as independent variables, whereas the five prior variables from the five hypotheses are the internal characteristics of the Islamic banks.

The hypotheses that have been examined in this study are created below:

$H_1$ : Malaysian Islamic Banks performance is positively correlated with their credit risk.

$H_2$ : Malaysian Islamic Banks performance is positively significant with their liquidity

$H_3$ : Malaysian Islamic Banks performance is positively correlated with their capital.

$H_4$ : Malaysian Islamic Banks performance has correlation with their bank size.

$H_5$ : Malaysian Islamic Banks performance is positively insignificant with their economic condition.

### 3.2 Estimation Model

The estimation model in this study is constructed as the regression models which is based on the methodology used by Al-Tamimi [3], who ascertained factors affecting performance of UAE Islamic and conventional banks. The regression models are constructed as follows:

$PERF = f(CR, LIQ, CAPITAL, SIZE, ECON)$

$ROA = f(CR, LIQ, CAPITAL, SIZE, ECON)$

and

$$ROE = f(CR, LIQ, CAPITAL, SIZE, ECON)$$

where: PERF-is represent performance measures for the Malaysian banks measured by  
 ROA-is a measure of bank's performance (return on asset)  
 ROE-is a measure of bank's performance (return on equity)  
 and independent variable of credit risk (CR), liquidity (LIQ), level of capital (CAPITAL), size of the bank (SIZE) and the economic condition (ECON).

Based on the model above, the study adopts an experiment method to make the analyzation of data. Credit risk and capital level are believed to have positive relationship with Malaysian Islamic Banks performance.

Data used for this research is taken from the annual report where it calculates the ratio automatically. This study used the calculated data for five financial year periods which is from 2011 to 2015. In this study, Malaysia is chosen because this country is one of the developing country rapidly in many aspects such as banking service, insurance service and so on. With that, the Islamic banking institutions are more evolved and contributing to good banking products and services recently. The sample consists of Malaysian Islamic bank companies which are listed on the data as follows:

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| 1. Affin Islamic Bank Berhad.     | 6. CIMB Islamic Bank Berhad.       |
| 2. Alliance Islamic Bank Berhad.  | 7. Hong Leong Islamic Bank Berhad. |
| 3. AmBank Islamic Berhad.         | 8. Maybank Islamic Berhad.         |
| 4. Bank Islam Malaysia Berhad.    | 9. Public Islamic Bank Berhad.     |
| 5. Bank Muamalat Malaysia Berhad. | 10. RHB Islamic Bank Berhad        |

## 4. Results and Discussion

### 4.1 Descriptive Statistics

The descriptive statistics has been employed to produce the values of the means and standard deviations of the variables in the regression model with regards to the bank characteristics on the profitability of Islamic banks in Malaysia. The findings are presented in the table 2 below:

**Table 2**  
 Descriptive Statistic of bank performance and its characteristics

	Mean	Std. Deviation	N
ROA	.0071	.00290	50
ROE	.1074	.04229	50
Credit Risk	.0933	.37147	50
Liquidity	1.0631	.07474	50
Capital	31.0571	12.11091	50
Size Of Bank	7.4423	.32768	50
GDP	5.2860	.45471	50

From the above findings, financial performance of most Islamic banks was estimated at 0.071% of the total assets, with a standard deviation of 0.0029. Size of bank which is already converted into natural logarithm of total assets of Islamic banks in Malaysia was found to be 7.4%; which was a sign that the banks generated income from their assets. A study by Elnihewi et al. [6] have found that the majority of banks (91%) have assets of more than 1,000 million Libyan dinar, while the minority (9%) have assets of less than 1,000 million Libyan dinar. This means that all the Libyan

bank branches are small in size, and, hence, the effect of size on performance is equal between banks [6].

The liquidity level of Islamic banks was 1% which means that some commercial banks were able to meet their financial obligations. Capital was found to be 31% while the level of credit risk of Islamic banks had a mean value of .0933 in which was a sign that most Islamic banks were consistent in their operations. ROE shows the result of 10% and concentration of 0.9% in which indicate the more efficient in their operations. GDP shows the result of 5.2%. The findings therefore conclude that although the estimated level of financial performance by most Islamic banks was moderate impressive, most banks had a sufficient capacity to generate profitability. Nonetheless, this was dependent on some reasons like bank credit policies, its efficiency and investment decisions.

#### 4.2 Regression analysis and hypothesis testing

The study conducted a regression analysis to test the hypothesis of the study which projected the significant relationship between internal and external factors and profitability of Islamic banks in Malaysia. The model summary illustrates the variation in the value of the dependent variable which is explained by the regression model. From the Table 3 results, R is the multiple correlation coefficient which is  $r=.603$  which means that there is moderate correlation between internal and external factors and profitability of Islamic banks as measured by ROA in Malaysia.  $R^2$  is the coefficient of determination which is the proportion of variance in the dependent variable that can be explained by the independent variables in the regression model where the results show a value of 0.363; which implies that the independent variables explain 36% of the variability of profitability of Islamic banks.

**Table 3**  
 Regression analysis on banks' ROA and its characteristics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603 <sup>a</sup>	.363	.291	.00244

a. Predictors: (Constant), GDP, Credit Risk, Size Of Bank, Capital, Liquidity

b. Dependent Variable: ROA.

**Table 4**  
 Regression analysis on banks' ROE and its characteristics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537 <sup>a</sup>	.289	.208	.03764

a. Predictors: (Constant), GDP, Credit Risk, Size Of Bank, Capital, Liquidity

b. Dependent Variable: ROE

Table 4 shows the findings of regression analysis between the ROE as a measured of performance among the Islamic banks in Malaysia and its characteristics. From the said table, R is the multiple correlation coefficient of  $r=.537$  which indicates that there is a moderate correlation between internal and external factors and profitability (as measured by ROE) of Islamic banks in Malaysia. The results show a value of  $R^2$  0.289 which implies that the independent variables explain 29% of the variability of profitability of Islamic banks.

**Table 5**  
 Regression model on ROA vs each bank characteristics

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.029	.012		-2.503	.016
	Credit Risk	.000	.001	.029	.212	.833
	Liquidity	.001	.006	.017	.114	.909
	Capital	2.341E-5	.000	.098	.721	.475
	Size Of Bank	.002	.001	.207	1.548	.129
	GDP	.004	.001	.620	4.487	.000

a. Dependent Variable: ROA

Based on the findings as shown in Table 5, the regression model obtained for this study is as follows:

$$ROA = -.029 + .001X_1 + 2.341E-5X_2 + .002X_3 + .004X_4 + \epsilon$$

The regression model obtained shows that there is a positive relationship between liquidity, capital, size of bank and GDP with profitability of Islamic banks in Malaysia. This reflects that holding all other factors constant a unit increase in one of the variables obtained in the regression model into a following rise in profitability of Islamic banks in Malaysia. Credit risk was excluded from the regression model since it showed a zero value with profitability although it has a positive value. This contradicts the hypothesis of this study which predicts a positive correlation between liquidity, capital, size of bank and GDP and profitability of Islamic banks in Malaysia.

Further, GDP was found to be statistically significant since its probability value obtained from the regression model above is below 0.005 (5%),  $p=0.000$ . On the other hand, credit risk, liquidity, capital, and size of bank are statistically insignificant since their p-values are more than 5%,  $p=.833$ ,  $p=.909$ ,  $p=.475$  and  $p=.065$  respectively.

**Table 6**  
 Regression model on ROA vs each bank characteristics

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.548	.178		-3.084	.004
	Credit Risk	.019	.016	.163	1.145	.259
	Liquidity	.005	.088	.008	.054	.957
	Capital	.001	.001	.200	1.397	.170
	Size Of Bank	.056	.018	.436	3.074	.004
	GDP	.040	.014	.425	2.911	.006

a. Dependent Variable: ROE

Based on the findings as shown in Table 6, the regression model obtained for this study is as follows:

$$ROE = -.548 + .019X_1 + .005X_2 + .001X_3 + .056X_4 + .040X_5 + \epsilon$$

The regression model obtained shows that there is a positive relationship between credit risk, liquidity, capital, size of bank and GDP with profitability of Islamic banks in Malaysia. It was found

that the size of bank is statistically significant since its probability value obtained from the regression model above is below 0.005 (5%),  $p=0.004$ . On the other hand, credit risk, liquidity, capital, and GDP are statistically insignificant since their p-values are more than 5%,  $p= .259$ ,  $p=.957$ ,  $p=.170$  and  $p=.006$  respectively.

The descriptive findings made conclusion that Islamic banks had a sufficient capacity to generate profitability from their assets and has more efficient from their equity. However, this was dependent on some determinants like efficiency of the bank, its credit policies, and management and investment decision. This was proved by the level of credit risk of Islamic banks which had a mean value of .0933 in which was a sign that most Islamic banks were consistent in their operations while ROE shows the result of 10% and concentration of 0.9% in which indicate the more efficient in their operations.

## 5. Conclusion

The study concludes that there is a moderate correlation between Islamic banks characteristics and their profitability in Malaysia. However, when the factors are tested individually, it was found that only size and GDP (the external factors) were found to have a statistically significant relationship with Islamic bank performance. This indicates that Islamic banks could upgrade their efficiency level by investing in modern technologies which will lead them to obtained maximum use of available resources like assets and credit line to invest in projects that can fulfil higher returns. It is also crucial for Islamic banks to consider investing in other lines of business rather than their core activities to minimize their risks and stimulate profitability.

### 5.1 Recommendation for Policy and Practice

The research suggest that Islamic banks should invest in other lines of business such as product diversification and investments to generate income from core business. This will stimulate their stability and contribute to profitability. It could further suggest that Islamic banks should make maximum use of their existence resources such as assets and equity to boost their profitability and effectively conduct their main functions such as providing retail banking services to individual customers; Islamic loans and lines of credit to business; payment and clearing services; and involving in activities of capital markets. It is valuable realizing that large Islamic banks are active in every of these fields and have a demonstrable and positive effect on the economy. Additionally, the empirical findings found in this research might be worth in guiding central bank of Malaysia in setting policies and procedures that encourage Islamic banks to increase and expand to enjoy some of the merits that accrue for big firms like access to credit facilities and economies of scale. This will give a platform for Islamic banks to borrow and invest in capital projects so that they can realize profitability.

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