The Internal Determinants of Islamic Banks' Profitability in Malaysia

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ABSTRACT

Malaysia has been successful in implementing dual banking system. It was also announced as the first nation to have full-fledged Islamic banking system operating on a parallel basis with the conventional banking system. This study was conducted with the aim to investigate the relationship between dependent variable (return on asset) and independent variables (bank size, capital adequacy, liquidity, deposits and asset quality) of Islamic banks in Malaysia. This study also will examine which independent variables have the most dominant impact to the Islamic banks' profitability. The Pooled Generalized Least Method (PGLS) has been employed as the methodology of panel data analysis. The gathered data were from 16 Islamic banks operating in Malaysia with the period of study of 5 years started from 2008 till 2012. From the study, it was revealed that only bank size and asset quality are significant in determining the profitability with positive and negative relationship respectively. Meanwhile, bank size reported as the most dominant factor that affected the Islamic banks' profitability in Malaysia. In future research, it is recommended to have a long timeframe of the study and wider scope of determinants. The macro determinants should be taken into account where it will describe a bigger picture in explaining the determinants of the banks' profitability.
KEYWORDS: Islamic Banking, Bank Profitability, Return on Assets, Bank Size, Asset Quality, Pooled Generalized Least Square, Panel Data Analysis.

INTRODUCTION

Islamic banking refers to a system that complies with Shari'ah law. There are two basic principles embedded within the Islamic banking. Risk and returns shall be equally shared. Whilst according to [11],money should be used in exchanging nothing else but goods and services. Thus, both receipt and payment of interest (riba) in any form is prohibited by Shari'ah. Activity involves the elements of gambling (maisir) and speculative trading (gharar) are also prohibited.

Profitability is a predominant goal of all the business activities. People involve in the business would set profitability as the main objective of business. Profitability can be defined as a condition of yielding a financial profit or gain from an exchange of potential risk. Without profitability, the company or organization will not be able to survive in the long run. Therefore, it is very important to measure the current and past profitability as well as projecting and forecasting the future profitability.

In the banking sector, profitability contributes in economies where it will endure negative and external financial shocks. Later, it would contribute to financial system stability. Due to that particular reason, it is essential to understand the determinants of profitability of the banks. The main objective of Islamic banking is merely not the owner's highest return on investment, but perhaps giving the best possible returns to the depositors. Factually, the handsome returns would definitely benefit the depositors [10]. Therefore, this study will be able to answer the question of what are the determinants (internal) affecting the Islamic bank's profitability in Malaysia.

LITERATURE REVIEW

Return on Asset (ROA)

Some studies related to Islamic bank's profitability used return on asset (ROA) and return on equity (ROE) as referring to the bank's profitability. In [7] used ROA proxy to the total income as a percentage of total assets, and ROE proxy to the net after taxes as a percentage of capital and reserves as the dependent variables in their study. According to [10], the profitability of banks can be measured by two different financial ratios. It could be ROA and ROE. ROA is a common measure of profitability of banks which used to analyze and evaluate the ability of banks to generate returns from its sources of funds. In contrast, the ROE used to represent the return generated from the shareholders' equity.

Besides that, a few researchers only used the ROA as a proxy to the bank's profitability. In [15] stated ROA used to measure how well the company uses its assets to generate additional profits. In [8] believed only ROA should be used to measure the profitability, since the aim of the banks is to measure its ability to create the profits.

Bank Size (Log Total Assets)

Bank size has been proven as an important determinant of the banks' profitability by numerous past empirical studies such as [8, 1, 2, 6, 3,10, 15]. In [12]founds a positive and significant result between ROA

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which indicates the banks' profitability and log total asset that represent the size of the bank. From their findings, they had concluded that there is a positive relationship between bank size and profitability where the result had provided the evidence for the economies of scale.

Capital Adequacy (Equity/Total Assets)

A study conducted by [15] used the equity in net loans as a measurement of capital adequacy ratio found the positive and significant relationship between capitalization and profitability of the banks. Based on that result, it shows the Islamic banks have higher capability to absorb losses in the future transactions.

In [9]reported [4] found the negative result of the relationship between capital adequacy and profitability. It argues that when the value of capital ratio is reduced, it will result the lower agency cost and improve the firm profitability. In [4] then added, constraining the managers to maximize their own utility would increase the value of shareholders. Then,the higher capital ratio will reduce the profitability of a bank.

Liquidity (Net Loan/Total Assets)

A serious study which conducted by [7] discussed that there were significant and positive relationship between ROA and liquidity. It also be supported by [6]. It was suggested that the higher in financing may follow by an increase in profits. In contrast, studies conducted by [10, 12, 9] found the negative and insignificant relationship between ROA and liquidity. The bank liquidity does not appear to be a major determinant of bank profitability. However,in [2] suggested there were positive relationships between ROA and liquidity. But, it was insignificant and liquidity shows no impact on banks profitability.

Deposits (Deposit/Total Assets)

In [6, 8] concluded that when the total deposits increase, the ROA also will be increased. This findings show that the deposit has an impact on banks profitability (ROA), and it was supported[13]. According to [13], banks with large branch and networks are able to attract more deposits and loan transaction. These circumstances would help to increase the bank's profitability. In [14] stated that deposits are being the major and the cheapest source of funding for banks and believed that customer deposits impact banking performance positively as long as there is a sufficient demand for loans in the market. In contrast, in [10] stated the relationship of ROA and deposits is negative. Their result has been supported by [2]. They found the negative and insignificant relationship between deposits and bank's profitability.

Asset Quality (Loan Loss Reserves/Gross Loan)

In [12, 15] used loan loss reserve to gross loan (LLR) ratio to indicate the asset quality. Poor asset quality may cause credit risk and lead to bank failure [9]. Therefore, it is expected to be negatively related to banks profitability. According to [12],LLR is a percentage of the total loan portfolio that has been set aside for bad loans. The higher LLR indicates poor quality of loans, hence a higher risk of the loan portfolio. The finding showed the negative relationship between LLR and ROA. It is on the line with [10,14, 13, 5, 16]. In [9] shared, studies conducted by [17] found the significant and inverse relationship between loan loss reserves to gross loan and bank's profitability. They were believed that an inverse relationship reflects the increased in exposure to credit risk may lower the Islamic banks' profitability.

METHODOLOGY

Theoretical Model

The researcher used a set of panel data for a period of study started from 2008-2012. In this study, it consists of one dependent variable (ROA) and 5 independent variables; bank size (BS), capital adequacy (CA), liquidity (LIQ), deposit (DEPO) and asset quality (ASQ). The equation below then will be used.

$$(ROA)i,t = \alpha + \beta 1 ln(BS)i,t + \beta 2(CA)i,t + \beta 3(LIQ)i,t + \beta 4(DEPO)i,t + \beta 5(ASQ)i,t + ui,t \qquad (1)$$

Data Retrieval

The data on banks' characteristics that associated to the profitability are obtained from BankScope database and also from the annual report of each bank. The BankScope database was compiled by International Bank Credit Analysis Limited (IBCA) which is considered as the most reliable and trusted database.

Data Analysis
Descriptive Statistic

Descriptive statistics used to describe the basic features of the data in the study. It is a basic summarization that will help the researcher in getting an early prediction of the model. Usually, it consists of mean, maximum, minimum, variance, coefficient of variance and standard deviation. From the descriptive statistics, CV value for exampleis used to compare the dispersion degree of the variables.

Correlation

The implementation of Pearson Correlation test is to identify the relationship appear between all the selected variables. In [1] suggested the result gained from the correlation will examine the absence of multicollinearity problems among the variables.

Panel Analysis

The initial test has been done in recognizing the suitability by using the panel data analysis method. Breusch and Pagan Lagrangian multiplier test has been used as to confirm at which level the study should be stopped and reported. If the result is statistically insignificant to proceed to higher levels of random effect model, therefore Pooled Generalized Least Squares (PGLS) will be employed since it has an ability to report a free heteroscedasticity and serial correlation problems in the model.

FINDINGS AND DISCUSSION

Descriptive Statistic

As reported in Table 1, ROA has the highest CV. Meanwhile, DEPO have the lowest CV at 0.06. Meaning that, ROA has a greater dispersion and DEPO has the lower dispersion where it is better since it can generate higher consistency and stability.

Table 1: Descriptive statistic

Stats	ROA	LBS	CA	LIQ	DEPO	ASQ
Mean	0.67775	9.345993	9.05925	55.61637	0.867	3.346125
SD	1.044164	0.8746206	5.118542	13.5958	0.0593296	2.759414
Max	3.02	11.42336	35.15	77.74	0.94	18.8
Min	-5.67	7.509116	1	13.69	0.61	1.11
CV	1.540633	0.095824	0.5650072	0.2444568	0.0684309	0.8246596

Correlation

In Table 2, all correlation values are less than 0.8 except the relationship between CA and DEPO where the value is 0.81. As mentioned by [13], if the correlation value is more than 0.8, then there is an absentee of the multicollinearity problem.

Table 2: Correlations between independent variables

	ROA	LBS	CA	LIQ	DEPO	ASQ
ROA	1.0000					
LBS	0.3736	1.0000				
CA	-0.2991	-0.4548	1.0000			
LIQ	0.2753	0.3110	0.0489	1.0000		
DEPO	0.3007	0.3413	-0.8149	-0.1694	1.0000	
ASQ	-0.5325	0.0008	0.2263	-0.2037	-0.3438	1.0000

Reported in Table 3, due to the insignificance value at any level of 1%, 5% and 10 %, the null hypothesis of no heteroscedasticity problem cannot be rejected. Therefore, no heteroscedasticity problem has been detected.

Table 3: Breusch and Pagan Multiplier Test for random effects

Chi2 (1)	1.34
Prob > chi2	0.2462

Panel Analysis

Coefficients = generalized least squares
Panel = homoscedastic
Correlation = no autocorrelation
Prob > chi2 = 0.0000

Table 4: PGLS regression

ROA	Coef.	Std.Err.	T	P > [t]
LBS	0.4055	0.1264	3.21	0.001*
CA	-0.0098	0.03159	-0.31	0.755
LIQ	0.0048	0.0077	0.63	0.531
DEPO	-0.3780	2.8327	-0.13	0.894
ASQ	-0.1953	0.03714	-5.26	0.000*
Constant	-2.3114	2.9532	-0.78	0.454

Note: * and ** indicate significance level of 1% and 5% respectively

$$\widehat{(ROA)}i,t = 0.4055(BS)i,t - 0.0098(CA)i,t + 0.0048(LIQ)i,t - 0.3780(DEPO)i,t - 0.1953(ASQ)i,t - 2.3114i,t \quad (2)$$
$$(0.1264) \quad (0.0315) \quad (0.0077) \quad (2.8327) \quad (0.0314) \quad (2.9532)$$

LBS used as proxy to bank size and it has a positive relationship with ROA. Based on the data retrieved from Bank Negara Malaysia(BNM) [18], the total assets of Islamic banks operated in Malaysia had shown the increasing pattern about 114.20% from the year 2011 to 2012. As the size of the bank is large, then it will be able to offer a wide range of financial services at a lower cost and hence it will create larger profitability. This finding is supported by [2, 3, 6, 10, 13, 15] whichshow the same result.

ASQ shows the negative relationship with ROA. As indicatedby the ASQ, Loan Loss Reserve over Gross Loan (LLR/GL) had been used. LLR is the percentage of the total portfolio that has been set aside for the bad loans. The higher LLR ratio is a signal of poor quality loan that may reduce the bank's profitability. In [15] who had conducted the comparative study of the performance of Islamic and Conventional banks in Malaysia, it found the same result in this study.

In Table 4, LIQ represents the liquidity of the banks. It has a positive relationship with ROA. This situation explained that the Islamic banks in Malaysia are positively correlated with financing (loans for conventional) that they have. As an addition to that fact, when more deposits are transformed into financing, then it will create more profits to the Islamic banks. However, the result from PGLS regression analysis shows the liquidity of the banks is not considered as the main factor that influences the profitability of the Islamic banks in Malaysia. This result is in the line with [8, 3, 2].

CA and DEPO have a negative relationship with ROA. It means that the lower capital adequacy and deposit are better to the bank's profitability which is lead to the higher ROA. The negative and insignificant result between CA and ROA has been supported by previous research like [6]. When the value of capital ratio is reduced, it will cause the lower agency cost and improve the bank's leverage. More leverage means the banks used funds to buy more assets for the sake of creating more products and services. Perhaps, it will generate more profits to the banks. In addition, by constraining the managers to maximize their own utility would increase the value of shareholders. Then, the higher capital ratio will reduce the profitability of a bank. Thus Islamic bank should not focus on increasing the equity performance in order to increase their profitability, but they may increase their leverage.

For every year, there were shown the increased in Islamic bank deposits. As reported by BNM [18], the overall Islamic bank deposits recorded in December 2012 is about RM 301537.309 million as compared to only RM 261542.244 million in December 2011. However, as reported in this study, the relationship between DEPO and ROA is negative and insignificant. Perhaps, the Islamic banks fail to gain the profits from deposits due to the commonness of short term deposits in the system. This result has been supported by the previous researches conducted by [2, 5, 10].

CONCLUSION AND RECOMMENDATIONS

As response to the first objective of the study, log bank size and liquidity shows the positive relationship with the return on asset. Other three determinants; capital adequacy, deposits and asset quality reported to have the negative relationship towards the banks' profitability. However, log bank size reported as the most dominant determinants that affected the performance of the Islamic banks in Malaysia. It is significant at 1%,which indicating the best level of significance. In future research, it is recommended to have a long timeframe of the study and wider scope of determinants. The macro determinants should be taken into account, where it will describe a bigger picture in explaining the determinants of profitability of the banks.

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