

Profitability of Islamic Banks in Malaysia: An Empirical Analysis

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Abstract

Malaysia is one of the countries that have implemented the concept of Islamic finance in its banking industry. The increasing value of the industry has made Malaysia one of the most significant hubs in dealing with Islamic finance. This paper examines the impact of bank characteristic as well as macroeconomic determinants on the profitability of Islamic banks in Malaysia. Ordinary Least Squares (OLS) method was used to analyze the data collected from 16 Islamic banks/windows in order to understand the determinants of Islamic banking profitability in Malaysia. Bank-specific determinants like, capitalization, asset quality, liquidity and operational efficiency were regressed against profitability. In addition, macroeconomic variables like gross domestic product and inflation were also included in the analysis. The results of this study shows that capital and asset quality have an inverse relationship with bank profitability while liquidity and operational efficiency have a positive influence. Finally, the macroeconomic variables show that both inflation and growth domestic product have positively influenced the bank profitability.

1. Introduction

The downturn in the United States in the late part of 2008 led to a dramatic downturn in businesses and financial institutions, not only in the United States but other countries as well (Lau, 2008). It affected the world stock markets and made large financial institution to either go bankrupt or sell off their shares to the public (Anup, 2009). The banking sector was one of the sectors most affected by the finance turnover, where 80% of the banking sector struggled with the sub-prime crisis and most financial instruments were affected. Loans were not able to be paid on time due to the stunted growth by early 2009 (Anup, 2009).

However, it was predicted that Islamic banks would not be affected as much as commercial banks due to the fact that Islamic banks follow different fundamentals, laws and have a different approach in their business. Due to the concept of profit-sharing where both parties are subjected to potential losses and returns, Islamic banking has become envy and is now being applied in various countries (Mokhtar *et al*, 2008).

According to Lahem (2009), the financial crisis is indeed a golden opportunity for Islamic banking to emerge to other parts of the world. In their article on 24 August 2009, RNCOS Research Analysts point out that "The recent financial turmoil witnessed by the world unveiled the vulnerabilities in the traditional banking system and displayed that Islamic banks are far much safer as they do not include risky product offerings." This is backed by Cihak and Hesse (2008) in their study on bank stability through bank performance between Islamic and commercial banks, where they showed that Islamic banks were more stable than commercial banks. Hassan and Ahmad (2007) found no difference in the asset quality of both types of banks in Bangladesh but found that Islamic banks were better capitalized than conventional or public banks. However, conventional banks were operationally more efficient than Islamic banks.

Malaysia was one of the countries least affected by the crisis. Several reasons were given by economic analysts and one of them was the development of Malaysia as the hub for Islamic finance. The Islamic banking concept was first implemented in Malaysia in 1983 with the first Islamic bank called Bank Islam. The growth of Islamic banking in Malaysia was more rapid when the government opened the opportunity for foreign Islamic banks in Malaysia in 1996. By early 2000, most of the local commercial banks had implemented the Syari'ah law as a window of their Islamic banking products. Statistically, the market share of Malaysia's Islamic banks boomed from 3.37 per cent in 1998 to 22.8 per cent in 2007 with Islamic banking assets reaching USD65.6 billion (Bank Negara Malaysia, 2008). The findings of Mokhtar *et al* (2008) showed that the performance of the Islamic banking industry in Malaysia had improved during the period of his study. With Malaysia's aim of becoming the most significant Islamic finance hub in the world, it is therefore very important to study the performance of the participants in the Islamic finance industry and what drives this performance.

Since the early 1990s, studies on Islamic banking were focused more on the efficiency and were largely theoretical studies of how Islamic banking affected the banking industry (Berger and Humprey, 1997). Also, other studies underlined the comparison of Islamic banking instruments with that of commercial banking, the regulatory aspects, and challenges faced by countries that were initiating Islamic principals into their banking sectors (Sundarajan and Erico, 2002; Ainley *et al*, 2007; Sole, 2007; Jobst, 2007).

Although there have been a significant number of studies done on the efficiency of Islamic banking globally, there is still little quantitative analysis done on the profitability of Islamic banks as compared to that done for conventional banks. Many studies have been conducted to determine what affects the profitability of conventional commercial banks and most of the studies done used different methods

and approaches in evaluating a bank's performance. Among them, the studies conducted by Athanasoglou *et al* (2005), Anna and Hoi (2009), Heffernan and Fu (2008) and Bashir (2003) etc are different from one another. This is due to the fact that the results are influenced by the changes of a bank's internal condition and the macroeconomic environment. There are a number of papers that concentrate on how Islamic banking principals could generate income by excluding the concept of interest and utilizing the concept of profit sharing. Although most papers focus on the theoretical part of generating profit using the Syari'ah concept, there is not much research done on the factors which affect this significant amount of profit generated by the Islamic banking sector.

This paper attempts to examine the drivers of profitability of the Islamic banking sector in Malaysia. It has focused on the contribution of bank-specific as well as macroeconomic factors to the variation of the profitability across Islamic banks in Malaysia. By using the same determinants and quantitative methods as those done in studies of conventional banks, the results for Islamic banks might differ from the results obtained for commercial banks, as there could possibly be other factors not important in determining the profitability of commercial banks that affect Islamic banks or vice versa.

1.1 Literature Review

A look at previous studies done on banking efficiency/profitability reveals various factors which affect it. These factors could be microeconomic factors and/or bank-specific factors.

Molyneux and Thornton (1992) found significant positive relationships between profitability (proxied through return on equity) and several macroeconomic factors which were the level of interest rates, bank concentration and government ownership in the 18 European countries studied. Chaudry *et al* (1995) also found that US banks during the 1970s and 1980s depended on general interest rate trends. Guru *et al* (2002) however found a negative relationship between interest rates and bank profitability.

Other significant macroeconomic factors discovered in other studies are unemployment rate, inflation rate and gross domestic product (GDP). Abreu and Mendes (2002) showed that unemployment rate positively affects profitability of banks, and this was confirmed by Heffernan and Fu (2008). They also found that inflation rate positively affects the profitability of banks. This relationship was also found by Guru *et al* (2002) in their study on Malaysian banks, Naceur (2003) for Tunisian banks, Kosmidau *et al* (2005) for domestic UK commercial banks, Athanasoglou *et al* (2006) for banks in the South Eastern European region, Flamini *et al* (2009) for Sub-Saharan African commercial banks and by Sufian and Habibullah (2009) for commercial banks in China. These authors also found a positive

relationship between GDP and profitability of the banks they studied. Bashir (2000) found the same relationship between GDP and profitability across eight Middle Eastern countries. However, Demerquc-Kunt and Huizingha (1999) found that the ratio of bank asset to GDP led to lower profitability. They also found that lower market concentration led to lower profitability and this was also confirmed by Flamini *et al* (2009) who found a positive relationship between market concentration and bank profitability.

Aside from macroeconomic factors, bank specific factors have been shown to be just as important in determining the profitability of banks. These bank specific factors relate to the capital, liquidity, operational efficiency and asset quality of the banks. For instance, Abreu and Mendes (2002) found that well capitalized banks faced lower expected bankruptcy costs that enhance profit, thus showing a positive relationship between capital and profitability. Bashir (2000) measured capital efficiency through the equity to total asset ratio and found the same result, as did Nacuer (2003), Kosmidau *et al* (2005), Flamini *et al* (2009), Vong and Hoi (2009) and Sufian and Habibullah (2009). However, Athanasoglou *et al* (2006), using the same ratio, found that capital was negatively related to bank profitability. Ghafar *et al* (2006) used the agency cost hypothesis to argue that low equity to total asset ratio reduces agency cost and increases firm value.

The relationship of liquidity, studied through proxies such as loans to total asset or loans to deposits and short term funding, with profitability was also studied. Chaudhry *et al* (1995) found that residential real estate loan to total asset negatively affected small and medium sized banks in US in the 1970s and 1980s. Kosmidau *et al* (2005) used the liquid asset to customer and short-term funding ratio and found that liquidity negatively affected profitability. But when using loans to total asset ratio, Bashir (2000), Athanasoglou *et al* (2006), Vong and Hoi (2009) and Sufian and Habibullah (2009) discovered a positive relationship between liquidity and profitability.

Operating efficiency, which can be measured by various ratios, produced mixed results. Kosmidau *et al* (2005) and Heffernan and Fu (2008) used the cost to income ratio as their operational efficiency ratio and found a negative relationship with profitability. On the other hand, Bashir (2000), Naceur (2003), Barth *et al* (2003), Athanasoglou *et al* (2005), and Vong and Hoi (2009) used the ratio of operating expenses to total asset as their proxy and they found a significant positive relationship of this ratio with profitability.

Unlike operational efficiency, asset quality was measured through only one ratio, i.e. the loan loss reserves to total/gross loans ratio by Kosmidau *et al* (2005),

Athanasoglou *et al* (2006), Heffernan and Fu (2007) and Vong and Hoi (2009). All these studies found a positive relationship between asset quality and profitability.

Camilleri (2005) found a positive relationship between profitability and size. But their findings are interesting in the sense that the banks' strength differed significantly, where when large banks hold more capital, there is a weaker relationship with its interest income and these banks then operate on a lower cost. This is in contrast to the smaller banks that have accumulated a relatively higher loan loss reserves and hold a higher ratio of liquid assets. Despite taking the log of total asset as the measure of size, results differed in the various studies. Bashir (2000) found size to negatively affect the profitability of Middle Eastern Islamic banks. This relationship was also found by Kosmidau *et al* (2005) and Sufian and Habibullah (2009) for conventional banks. However, Camilleri (2005), Athanasoglou *et al* (2006) and Flamini *et al* (2009) found size to positively affect the profitability of the banks they studied.

As was pointed out earlier, the studies done to understand bank profitability have mostly been on conventional commercial banks. Since only the concepts of Islamic and conventional banks are different while the basic functions and goals remain the same, a similar study should be done on Islamic banks to better understand the determinants of its profitability. With Islamic finance being relatively new and in the development phase, this kind of study will help banks adopting the Syari'ah system to manage their assets better and earn more profit. Malaysia has had more than 20 years of experience in Islamic finance and so is a good choice for this study.

2. Data and Methodology

The literature review has provided some basis in determining the significant dependent and independent variables. The ratio of ROAA is used to measure bank profitability. Five independent variables are considered to represent the asset quality, liquidity, operations, capital and size of the banks. For macro-environment factors, the GDP and inflation rate are used.

The data used for this study is derived from the financial statements of 16 private and public Islamic banks/windows in Malaysia. The data was taken from the Bankscope database, which had financial statement data for these banks/windows only from 2005 to 2008. By pooling all the data together, 36 observations were collected. The inflation rate and gross domestic product (GDP) was retrieved from the IMF International Financial Statistic (IFS) database.

In this paper, the average return on asset (ROAA) ratio is used to proxy for profitability. The ROAA is calculated by dividing the net income of the bank with its total assets. It reflects how a bank manages its real investment resources to generate

profits. According to Flamini *et al* (2009), ROA is a better key proxy than ROE because an analysis on ROE neglects financial leverage.

Ratios for asset quality are normally based on the loans and the leases. It is also a method of evaluation in assessing the credit risk associated with a particular asset. Examples of asset quality ratios are loan loss reserve to gross loans, loan loss provision to net interest revenue and loan loss reserve to impaired loans. This paper uses the loan loss reserve to gross loans (LLRL) as the determinant of how asset quality could influence the profit of Islamic banks in Malaysia. The loan loss reserve to gross loans ratio indicates the total loan portfolio that has been set aside for bad loans. According to Heffernan and Fu (2008) the expected relationship of this ratio with profitability can be positive or negative due to higher provision signals which estimate a possible loan loss in the future or it could also indicate a timely recognition of weak loans of banks.

Capital ratios are essential as they show how equity of a bank influences the profit made. It measures the banks' ability to withstand the losses incurred in the future. It should be an important variable to determine a bank's profitability as the ratios not only represent capital requirements but may also proxy for risk and the regulatory cost (Flamini *et al*, 2009). Athanasoglou *et al* (2005) and Berger (1995) state that the capital ratio could represent how well the bank is capitalized. Well-capitalized banks are predicted to be less risky and profits are estimated to be lower due to the fact that these banks are supposed to be safer. Hence, that capital ratio is negatively related to the bank's profits. However, if the regulatory capital represents the binding restriction of the cost it could mean that the capital is a part of cost or reinvestments. This could lead to a positive relationship between capitals and profits as this ratio could indicate the transfer of profits towards the customers. Thus, if capital is reinvested it will lead to a positive relationship with profits. In this paper, the total equity to total asset (EA) ratio is used to proxy for capital and the predicted relationship between this ratio and profitability can either be positive or negative.

Liquidity also plays an essential role towards the profitability of banks. By taking the net loans to total asset (LA) as a liquidity proxy, this ratio provides a measure of income source. Loans are the largest components of interest bearing assets of a bank and are expected to have a positive effect on profitability (Vong and Hoi, 2009). When other things are constant, more deposits are transferred as loans, hence, the profits are expected to be higher. However, when banks are expected to increase their loans portfolio, it is also expected that they have to pay a higher cost for their funding requirements. In other words, a very high ratio could also reduce liquidity. In this case it will lead to a negative correlation with profitability. Hence, it is predicted that this ratio is positively related to profitability.

Operational efficiency is normally proxied by the ratio of cost to total income. The reason behind using this ratio is that it reflects the cost of running the bank as a

percentage of income. The higher the ratio the less risky the bank will be, which will directly affect a bank's profitability. This ratio provides information on variations in operating costs. It is predicted that the sign of coefficient can be positive or negative. The negative relationship means that efficient banks are able to operate at low costs. On the other hand, if the coefficient of the test shows that there is a positive relationship between the ratio and profitability, then it means that the banks are able to transfer their operating cost to their depositors and borrowers. Due to lack of data on cost to income ratio and operating expenses to total asset in Bankscope, the study uses the net interest margin ratio (NIM) of all the banks studied. According to Simpson (2002) and Vensel *et al* (2003), net interest margin can be categorized as a proxy for a bank's operational efficiency. Net interest income in Islamic finance however is measured as the difference received in interest-free contract. Bankscope classifies the ratio as the cash-flow of its interest-free lending. The ratio of net interest margin could represent bank efficiency on how successful the investment made by banks is compared to its debt situation. A negative value denotes that the banks are not making a wise operating decision, which is due to the fact that the interest expenses were greater than the amount of return generated by the investment. It is predicted that there will be a positive relationship between net interest margin and the profits made by Islamic banks in Malaysia.

The size (S) of banks indicates bank risk and is used to evaluate how size is related to the profitability made by the Islamic banks. According to Flamini *et al* (2009), the bigger the size of the banks, the lesser the requirement for profits whereby lower interest rates will be charged to borrowers. However, if large banks control a large proportion of the domestic market and are operating in a non-competitive market, lending rates could be high. Although larger banks are normally associated with lower cost and normally earn profit more than smaller banks, there is evidence that smaller banks do earn high revenues too. In this case, it is related to the competitiveness of the environment and the market power of the smaller banks (Heffernan and Fu, 2008). The ratio of bank size will be taken as the logarithm of the total asset. Bank size can affect a bank's profitability positively or negatively.

This study uses the GDP as a measure of the cyclical input effects, which are expected to have a positive relationship with bank profitability. It is predicted that when GDP slows down, and usually during recession, there will a decline in credit quality which will lead to an increase in defaults, thus reducing profits.

Inflation rate (INF) is used as a proxy of how microenvironment risk could affect the profits made by Islamic banks. In this case, we take the annual inflation rate of the nation into consideration. This measures the overall percentage of increment in the consumer price index for all goods and services. Vong and Hoi (2009) suggest that high inflation is often associated with higher cost and higher income. It is predicted

that if income increases more than the cost, inflation will have a positive impact on the profits. However, there will be a negative correlation if the cost increases faster than the income does. Most studies found a positive relationship between inflation rate and profitability.

To test the relationship between profitability and the bank specific determinants and macroeconomic variables described above, a linear regression model is estimated as below:

$$P_{qt} = c + \sum \alpha_i B_{qjt} + \sum \beta_i X_{kt} + U_{it}$$

where:

P_{qt} is the dependent variable, in this case the profits made by a bank which are measured by the ROAA for bank q at time t

B_{qjt} is the j -th bank specification characteristic of bank q at time t ,

X_{kt} is the k -th macroeconomic variable at time t ,

U_{it} are the error terms.

The Ordinary Least Squares (OLS) method is used in this study. The advantage of using the OLS method is that it gives us the “best fit” of coefficients for future prediction, given that all assumptions are met.

3. Empirical result

Table 1 below describes the variable used in this paper through their means, standard deviations, skewness and kurtosis.

Table 1: Summary of Descriptive data

	ROAA	NIM	LLRL	LA	EA	S	INF	GDP
Mean	-0.398889	3.335278	4.220833	46.60917	11.54972	3.798917	0.027139	0.059361
Median	0.585000	3.050000	2.985000	47.76000	8.120000	3.866500	0.030000	0.059000
Maximum	2.000000	7.030000	15.92000	79.64000	77.18000	4.430000	0.038000	0.071000
Minimum	-25.78000	0.110000	1.470000	0.830000	-1.700000	2.464000	0.013000	0.050000
Std. Dev.	4.682380	1.597944	3.454395	21.45638	13.14120	0.415170	0.008744	0.005713
Skewness	-4.754278	0.305618	2.263665	-0.419259	3.760804	-1.368748	0.030672	0.139528
Kurtosis	25.66178	2.652003	7.375649	2.501346	18.71375	5.282967	1.557377	2.517778

On average, the mean value of ROAA for the 16 studied Islamic banks is -0.398889 but the mean value for all 7 independent variables are positive. The loans to total

asset ratio shows the highest mean value which is 46.60917 and the highest standard deviation of 21.45638. A high standard deviation indicates that there is a huge gap between the loans given out by the different banks. The equity to total asset ratio shows a mean of 11.54972 and standard deviation of 13.1412. As for the macroeconomic variables, inflation and gross domestic product show that they have a mean value of 0.027139 and 0.059361, respectively and inflation has a higher standard deviation compared to gross domestic product.

Table 2 looks at the correlation between the independent variables to see if there is any variable which could influence the other independent variables.

Table 2: Correlations between independent variables

	NIM	LLRL	LA	INF	GDP	EA	S
NIM	1.000000	0.549922	0.104761	-0.023977	0.046169	-0.145167	0.185917
LLRL	0.549922	1.000000	0.042954	0.137127	-0.072101	-0.291018	0.477796
LA	0.104761	0.042954	1.000000	-0.061415	-0.094458	-0.356639	0.530407
INF	-0.023977	0.137127	-0.061415	1.000000	-0.589546	0.005786	0.015877
GDP	0.046169	-0.072101	-0.094458	-0.589546	1.000000	-0.112717	0.103044
EA	-0.145167	-0.291018	-0.356639	0.005786	-0.112717	1.000000	-0.740644
S	0.185917	0.477796	0.530407	0.015877	0.103044	-0.740644	1.000000

The above correlation matrix shows that all the variables are not strongly related to each other (values less than 0.7) except for bank size which is highly correlated with equity to total asset (-0.740644), which could indicate the presence of multicollinearity.

Table 3: Regression Model 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NIM	0.856441	0.405460	2.112269	0.0437
LOG(LLRL)	-2.845783	1.412576	-2.014605	0.0536
LOG(LA)	2.001893	0.791191	2.530228	0.0173
INF	105.0617	60.34862	1.740913	0.0927
GDP	253.1235	97.53913	2.595097	0.0149
EA	-0.218306	0.048697	-4.482910	0.0001
S	-1.176629	2.638863	-0.445885	0.6591
C	-17.81602	9.640217	-1.848094	0.0752

The regression shows that all variables are significant at 5 percent level and 10 percent level, except for bank size which has a p-value of 0.6591. Including bank size in the regression model does not fulfill the condition of no autocorrelation in a multiple regression model. Since bank size is insignificant in influencing profitability and is strongly correlated with equity to total assets, hence this variable is excluded from the model estimated in this study. The results of this regression are shown in Table 4.

Table 4: Regression Model 2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EA	-0.209599	0.044453	-4.715079	0.0001
GDP	262.5300	104.8422	2.504048	0.0182
INF	119.3794	64.47925	1.851439	0.0743
LOG(LA)	1.675928	0.549982	3.047241	0.0049
LOG(LLRL)	-3.017372	0.999361	-3.019301	0.0052
NIM	0.821242	0.353477	2.323328	0.0274
C	-21.93038	8.251443	-2.657763	0.0127
R-squared	0.772512	Mean dependent var		-0.398889
Adjusted R-squared	0.725445	S.D. dependent var		4.682380
S.E. of regression	2.453473	Akaike info criterion		4.805552
Sum squared resid	174.5663	Schwarz criterion		5.113458
Log likelihood	-79.49993	F-statistic		16.41318
Durbin-Watson stat	2.104420	Prob(F-statistic)		0.000000

Heffernan and Fu (2008), Shih *et al* (2007) and Ling and Zhang (2008) show that bank size does not affect the profitability of banks. This could be due to inefficiency due to pressure to lend to state-owned enterprises, without provisioning for and/or writing off bad debt. Results show that all the independent variables are significant at 5% level, except for inflation, which is significant at 10% level. All the assumptions of the classical regression model are also satisfied, indicating this to be the best model for our problem.

4. Discussion of the findings

As mentioned earlier, four (4) bank efficiency ratios are taken into consideration in evaluating the determinants of bank's profitability which are asset quality, liquidity, capital and operational efficiency. Size was also considered first but later dropped. For asset quality, the log loan loss reserve to gross loans variable resulted in a negative relationship with the bank's profitability. This result supports the findings of Vong and Hoi (2009), and Athanasoglou *et al* (2005). In this case, the negative relationship of asset quality with profitability shows that Islamic banks in Malaysia have to focus more on their credit risk. Though banks tend to be more profitable when they are able to undertake more lending activities, it can also mean that higher provision is needed. In this case, expenses will rise and will affect the profits made. The credit quality and credit portfolios are some indicators that could affect the quality of the provision of the Islamic finance market in Malaysia. In addition, Brown (2009) states that negative loan loss reserve to gross loans could lead to negative loan loss provisions and hence, increases the profitability of the bank. Therefore, it is shown here that the Islamic banks in Malaysia should decrease the amount of loan loss reserve to gross loans to reduce their loan loss provision expenses in the hope that it will raise the profit made by the banks.

The loans to total asset ratio shows a positive relationship with the profits made by Islamic banks in Malaysia. This indicates that the profits made by Islamic banks in Malaysia are positively correlated with the loans that they have and when more deposits are transformed into loans, higher levels of profits are made by the banks. Compared to commercial banks, most studies such as by Heffernan and Fu (2008) and Vong and Hoi (2009) showed that the relationship of total loans to asset ratio with bank profitability is negative. This is due to the fact that severe competition in the credit market and interbank placement of funds has reduced the profitability made by commercial banks. In contrast, Islamic finance prohibits the investment in non-lending operations such as regular bonds or T-bills and this could be an advantage and the reason for a positive relationship with the profits made by Islamic banks in Malaysia. The result shows that Malaysia's Islamic banking industry is taking the financial stress to make more loans and holding less liquid assets, hence, increasing profitability. In addition to this, it was reported by Bank Negara Malaysia (2008), that there were more product enhancement of loans given out by Islamic banks to boost the economic growth since the crisis. The principal of profit sharing in Islamic finance attracted more loans during recession as it benefits both the bank and customer.

As mentioned before, the net interest margin of Islamic banks in Malaysia is accumulated by the cash flow of the interest-free lending. As predicted, the net

interest margin affects the profits made by Islamic banks in Malaysia positively. This means that these banks are making a reasonable decision in controlling their investment and contract lending. As stated by Brown (2009), loan negotiation and wise investment decision could decrease the credit risk of the banks hence increasing the total ratio of net interest margin. In this case it will increase the lending revenues made by banks and hence affect the profits positively. The result shows that, Islamic banks in Malaysia should concentrate on how to increase their net interest margin, in this case their interest-free lending contract, as this will boost the industry. In addition, with Malaysia's new liberalisation concept from the government, which is increasing the license given out to foreign Islamic banks in Malaysia, this means that there will be an increase in loans and lending activities (Akhtar, 2009). So, there will be healthy competition in the industry. In addition, the local Islamic banks in Malaysia should also concentrate on decreasing the expenses in their contracts on their profit and loss sharing agreement as low expenses will increase the net profit of the lending.

Equity to total asset is used to measure the capital stability of banks. The regression model shows that the ratio has a negative relationship with bank profitability. It means that Islamic banks in Malaysia should not focus on increasing the equity performance to increase their profitability. Although most studies indicate that high equity to total asset is a good indicator of profitability, it does not apply in this case. Here, when the value of equity to total asset is reduced, it will result in a lower agency cost and improve firm performance (Berger, 1995). In addition, more efficient banks choose to decrease the equity ratio because it increases bank efficiency ratio and will reduce the expected cost of bankruptcy and financial distress. Besides that, to equalize the low capital ratio is to suggest that the bank should also increase their leverage. Myers (1984) suggests that decreasing the value of capital to asset or increasing the leverage tends to give an optimal capital structure. Also, the study done by Ghafar *et al* (2006) show that Islamic banks in Malaysia have a high leverage or a lower equity capital ratio to maximize their profit. To conclude, Islamic banks in Malaysia should focus more on increasing their leverage value rather than their equity capital to increase profitability.

The empirical result shows that both macroeconomic variables used in this model are significant in explaining Islamic banks profitability in Malaysia. In this study, the result shows that inflation positively and significantly affects the profits made by Islamic banks in Malaysia. Similarly, Athanasoglou *et al* (2005), Vong and Hoi (2009) and Bashir (2000) also found positive correlation between inflation rate and profitability and that inflation rate plays an important role as a macro variable in affecting the profits. The positive relationship implies that, with inflation, bank income increases more than its costs. In other words, banks that forecasted future

changes in inflation correctly resulted in acceptable adjustments in interest rates and margins, which helped in increasing their profits. However, when taking into consideration that Islamic finance does not deal with interest rates, it could be assumed that by forecasting and predicting the inflation rate it could help the bank in making decisions with regards to the rate of profit sharing, loan quantity and asset quality instead.

The profit made by the banks is directly proportional to the GDP. In this case, it is important for Islamic banks in Malaysia to analyze the upcoming GDP, as the proxy could help the banks to construct better operations strategies, hence increase their profits. Azhar (2007) showed that the GDP in Malaysia is dependent on the unemployment rate, trade balance, foreign exchange rate, exports rate and inflation itself.

5. Conclusion

The objective of this paper is to study the variables that affect the profitability of Islamic banks in Malaysia. By taking the ratios from 16 banks with a total of only 36 observations, we proxy the profits by taking the ratio of a bank's ROAA. The Ordinary Least Squares (OLS) method of regression was used. The tests showed that, capital, liquidity, operational efficiency, asset quality, inflation and the gross domestic product (or GDP) affect profitability of Islamic banks in Malaysia.

The model indicates that the profits made by Islamic banks in Malaysia are positively related with the liquidity and the macroeconomic environment, while it was negatively related with its asset quality and capital. However, the size of Islamic banks in Malaysia had insignificant contribution to its profitability hence it was dropped from the analysis. That is the profits of Malaysia's Islamic banking sector are not influenced by the size of the banks. This result is consistent with the findings of some other studies conducted on both conventional and Islamic banks..

It can also be concluded that the macroeconomic policies are important factors in contributing to the profits of the banks. Therefore, policies aimed at controlling the inflation rate and the GDP growth should be given priority in fostering financial intermediation. Last but not least, the control level in the supervision of investment of Islamic banks needs to be monitored closely as it has significant contribution to the profit of this industry.

This study could be expanded further as over time the banks' profitability could be changed due to liberalization, new regulation, demand and future trends of this sector. In fact, it would have been better if the study could compare Islamic banks with its conventional counterparts functioning in Malaysia, especially those banks which have

both conventional and Islamic windows. It can be useful to see whether there is any difference between the profitability amongst these two types of banking system. Because these banks have just started to publish the annual reports on their Islamic banking segment, it would probably take a few more years to conduct a meaningful in depth analysis between these two types of banking system.

In the future, with the hope that more data would be available, other factors may be identified as having strong influence on the profitability of Islamic banks in Malaysia.

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