THE DETERMINANTS OF ISLAMIC BANKS PROFITABILITY IN MALAYSIA

BY

KOK YOKE TENG
TAN KER WEI
TAN SIM YONG
YONG MAN SIEW

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

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Name of Student: Student ID: Signature:

1. __Kok Yoke Teng__   __09ABB05796_____   _____

2. __Tan Ker Wei_____   __09ABB05151_____   _____

3. __Tan Sim Yong____   __09ABB03287_____   _____

4. __Yong Man Siew___   __09ABB05582_____   _____

Date: ___20/4/2012_____

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Dedication

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Preface

Islamic banking industry is growing rapidly. Islamic banking has played an important role in Malaysia since 1983. The emergence of Islamic bank has changed the banking industry dramatically. The foundation idea of this paper rooted in the intent to find out the determinants that affect Islamic banks' profitability in Malaysia, and it is motivated by the reason of which very little of research have been conducted on Islamic banks compared to conventional banks.

Generally, bank profitability in our context can be defined as a Return of Asset (ROA) that enables a bank to identify its performance. When we look at the banks' profitability, it can be seen that there are two important factors are closely linked with it, which are divided into bank characteristic (internal) and macroeconomic (external).

For bank characteristic factor, standard financial ratios consist of capital ratio, bank size, liquidity, asset quality and expenses management is often a good measurement of banks' profitability. For macroeconomic factor, in adopting previous studies, Gross Domestic Product (GDP), inflation, money supply and competition were selected to test in our context.

Of necessity, this paper touches on the background of Islamic banking industry, research objective, determinants and its effect, data analysis, empirical findings and recommendations.

Abstract

The aim of this study is to determine the effect of bank characteristic (internal) and macroeconomic (external) determinants on the profitability of Islamic banks in Malaysia. Internal determinants are like capital ratio, bank size, liquidity, asset quality and expenses management and external determinants are like Gross Domestic Product (GDP), inflation, money supply and competition. Secondary data was collected from 16 Islamic banks in Malaysia from year 2006 to 2010. The financial ratios technique was applied to calculate on these variables and Ordinary Least Square (OLS) was used to run the regression model. The estimation result shows that bank size and money supply are significantly and positively influence the bank profitability while asset quality and expenses management inversely affect the bank profitability. For future studies, it is recommended that more sample size and determinant factors can be included in determining the effect on bank profitability.

CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

Islamic banking is playing an important role in today's banking industry. Islamic banking has grown rapidly in Malaysia recently. There are now total 16 Islamic banks in Malaysia. However, financial turnover has caused most of the banks to collapse and many banking sectors have been affected due to the sub-prime crisis and economy downturn. During these years, there are more researchers started to carry out their research to determine the factors affecting the profit of Islamic banks in many countries.

1.1   Research Background

Islamic finance has grown rapidly since it first emerged in the 1970s. Current global Islamic banking assets and assets under management have reached USD750 billion and is expected to hit USD1 trillion. (BNM, 2011).

There are over 300 Islamic financial institutions worldwide across 75 countries. Based on Asian Banker Research Group research, the global Islamic industry has an average growth of 15% to 20% annually and The World's 100 largest Islamic banks have set an annual asset growth rate of 26.7% (BNM, 2011).

Malaysia Islamic financial industry was started from 1983. Most of the conventional banks in Malaysia have involved in Islamic industry as well. They have a subsidiaries bank that running the Islamic Syariah concept or have an Islamic window to operate the Islamic product and financing.

This study is shown that how the determinants affect profitability for Islamic Bank in Malaysia and better understanding about importance of determinants of

probability. There are few studies about Islamic banking, they found out there are many factors influence the profitability of Islamic bank.

1.2 Problem Statement

Malaysia's Islamic banking assets reached USD65.6 billion with an average growth rate of 18 to 20% annually. The statistic showed that Islamic Banking industry is growing on form in Malaysia. Malaysia has placed a strong emphasis on human capital development alongside the development of the Islamic financial industry to ensure the availability of Islamic finance talent. These have transformed Malaysia into one of the most developed Islamic Banking Markets in the world.

Islamic banking industry has grown rapidly indeed. This research is to conduct the determinant of Islamic banks' profitability and figure out what has influenced Islamic Banks to grow rapidly in Malaysia. There are many researches discussed on the importance of internal (bank characteristic) and external (macroeconomic) factors and how they affect the banks' profitability. Nevertheless, most of the study is conducted on the conventional banks instead of Islamic banks. This has motivated us to conduct this study on Islamic Banking industry.

1.3 Research Objectives

Islamic banking has grown rapidly in the banking industry of Malaysia. This paper is to examine the determinants of Islamic bank's profitability in Malaysia.

1.3.1 General Objective

The objective of this paper is to determine the factors affect the Return of Asset (ROA) of Islamic banks in Malaysia.

1.3.2 Specific Objectives

The purpose of this paper is to closely examine how internal factors such as capital ratio, bank size, asset quality, liquidity and expenses management affect the Islamic banks' Return of Asset (ROA). Besides, the objectives of this paper also examine how external factors such like Gross Domestic Product (GDP), inflation rate, money supply and competitions affect the ROA of Islamic banks. It is critical to determine which factors essentially determine the ROA of the Islamic banks.

1.4 Research Questions

In this competitive banking industry, what are the factors that affect the Return of Asset (ROA) of Islamic banks in Malaysia?

1.5 Hypotheses of the Study (for quantitative research)

The major hypothesis of this study is to evaluate whether external factors as well as internal factors are important in explaining Islamic banks' profitability. The internal factors include capital ratio, bank size, liquidity, asset quality and expenses management while external factors include Gross Domestic Product (GDP), inflation, money supply and competition. This study follows an extensive literature that focuses on internal as well as external factors as main determinants of banks' profitability.

1.6 Significance of the Study

In this study, we examine a series of variables by introducing internal and external factors that may significantly affect the Islamic banks' profitability. Our study can

be used as a reference for Islamic banks to focus and control over the variables that bring negative effects to its profitability.

1.7 Chapter Layout

The paper is divided into five sections. Firstly, chapter one presents the background, research objectives, hypotheses and contribution of the study. In chapter 2, literature on bank's profitability determinants is reviewed to justify selected external and internal variables. The methodology used in testing the effect of external and internal determinants on bank's profitability is explained in chapter 3. Next in chapter 4, we provide the description and analysis of the data. Lastly, we elaborate on the results in chapter 5 along with the conclusion and implications for policy.

1.8 Conclusion

This paper is to examine the determinants of the profitability which is the Return of Asset (ROA) of Islamic banks in Malaysia. The external and internal determinants of Islamic bank's profitability have been focused in this paper and the result found may differ from previous researches as the factors used may not be the same and other factors may also affect the final result.

CHAPTER 2: LITERATURE REVIEW

2.0   Introduction

This research is to discuss the determinants influence Islamic banks to grow rapidly in Malaysia. We will discuss about the review of the previous research about the internal and external factor that will studies in this research. We will discover the relation between the factor and profitability of bank and the theoretical model or framework in order to propose the conceptual framework. A hypothesis based on the theoretical will be developed in our context after the review.

2.1 Review of the Literature

Nowadays, Islamic banking has becomes important in the banking industry as financial analyst and investors realized that Islamic banking was safer than conventional banking, and it also brings a higher profit to the firms. Many studies have been done to determine the factors that affecting the profit of conventional banks and Islamic banks.

Bank profitability has been postulated to determine the bank's performance, as profit reflects how a bank performed. However, the factors that determine bank performances have been divided into internal factors and external factors. Internal factors include capital ratio, bank size, liquidity, expenses management and asset quality. These factors are referring to the factors that can be managed by the management of a bank. For the external factors, we have included gross domestic product (GDP), inflation, money supply and competition where all these factors considered beyond the control of a bank's management. It is mostly the macroeconomic factors.

2.1.1   Return on Asset (ROA)

Return on Asset (ROA) refers to the profitability on the assets of the firm after deduct all the expenses and taxes (Van Horne and Wachowicz, 2005). It measures the amount a firm is earning after tax for each dollar invested in assets of the firm. Generally, a higher ratio indicates efficient utilization of assets of the firm and better managerial performance while a lower ratio means inefficient use of assets. Many studies have used Return on Asset as a dependent variable in explaining banks' profitability. For instances, Ben Naceur (2003) used net interest margin (NIM) and Return of Asset as dependent variables in his study of determinants of the Tunisian banking industry profitability. Other country studies reviewed by Akther, Raza, Orangzab and Akram (2011) and Moin (2008) also used Return on Asset as measures of profitability in their studies of efficiency and performance of banks in Pakistan.

Besides, some authors stressed out the importance of using Return on Asset (ROA) as a measure of profitability. Alkassim (2005) used Return on Assets as the dependent variable as his study of profitability of Islamic and conventional banking in the GCC countries. He put heavy emphasis on ROA as it precisely measures asset performance in the banking industry. Moreover, Bashir and Hassan (2004) and Ben Naceur (2003) have applied Return on Asset as a performance indicator and as dependent variables because the author believed that Return on Asset will help to identify the effectiveness of bank assets.

Hassan and Bashir (2003) included both Return on Asset (ROA) and Return on Equity (ROE) as measures of overall performance in his study of determinants of Islamic banking profitability. Hassan stressed that Return on Asset can precisely reflect the management ability to utilize the bank's financial and real investment resources to generate profits. Thus, many regulators believed that Return on Asset is the best measure of bank efficiency. According to Flamini, McDonald and

Schumacher (2009), ROA is a better key proxy than ROE because an analysis on ROE neglects financial leverage.

In other hands, there is another view on the using of Return on Asset (ROA) as dependent variables. In the study of Heffernan and Fu (2008), the authors found that economic value added and net interest margin did better than conventional measures of profitability such as Return on Asset and Return on Equity (ROE). Economic value added (EVA) is a value-based performance measure which takes the opportunity cost of capital into consideration. According to Weaver (2001), EVA links economic, accounting and shareholder returns.

2.1.2   Capital Ratio

Capital ratio is a valuable tool for assessing safety and soundness of banks, some of the researchers explain that when a bank with high capital ratio or more equity capital is showing the bank is more safety and is an advantage to get higher profitability (Vong and Chan, 2009). Vong and Chan proved that capital will positively affect profitability with their statistically research. This result is consistent with Abreu and Mendes (2002) which also found a positive relationship between capital and profitability. In the study, Abreu and Mendes proposed that a well capitalized bank faces lower expected bankruptcy costs and show profit later. A study by Bashir (2000) also found the same result with a measure of capital by using the equity to total asset ratio for Islamic banks.

Even most of the researcher found there are significant positive relationships between the capital ratio and profitability but Athanasoglou, Delis and Staikouras (2006) and Athanasoglou, Delis and Staikouras (2005) found that capital is negatively related to banks' profitability for conventional bank.

Wasiuzzaman and Tarmizi (2010) and Pramato and Ismail (2006) found that the relationship between capital and Islamic bank profitability is negative in Malaysia. Berger argues that when the value of capital ratio is reduced, it will result in a lower agency cost and improve the firm profitability (as cited in Wasiuzzaman and Tarmizi, 2010). Pramato and Ismail who have also proposed the agency cost hypothesis explained that constraining the managers to maximize their own utility would increase the value of shareholders. Hassan and Bashir (2003) found the same result which is found a statistically significant negative relationship between the capital and profitability. High capital ratio reduces the profitability of a bank.

2.1.3   Bank Size

Bank size is one of the variables to determine banks' profitability. Boyd and Runkle (1993) showed that size of a bank is also associated with the concept of economies of scale. Referring to Idris et al (2011) and Bahsir (2003), they found that the bank size is a very strong variable that will positively influence the level of profitability. Idris et al believed that the larger the bank would have an advantage in negotiating the price of input, and it can reduce bank's average cost. Therefore, the bank is able to enjoy the economics of scale and improve its profitability.

However, Wasiuzzaman and Tarmizi (2010) and Athanasoglou, Brissimis and Delis (2005) found size of Islamic banks is insignificant and it is not important to affect banks' profitability. Wasiuzzaman and Tarmizi discovered that the bank size is highly correlated to the capital ratio and concluded that the profitability of Islamic banks in Malaysia is not influenced by the bank size. Haron (1996) state that the larger the bank size not necessary increases the profitability of a bank, especially the bank net income in the study found that there is a negative relationship between the bank size and profitability.

2.1.4   Liquidity

Liquidity ratio is one of the internal factors to measure bank's profitability. A number of proxies on the relationship of liquidity such as total loan to total asset and total financing to total deposit was studied. Liquidity ratio enables to determine a percentage of assets that comprise the loan portfolio. Most of the studies have done the relationship of liquidity of bank and its profitability on conventional banks as well as Islamic banks.

Kosmidou, Tanna and Pasiours (2005) did a research on UK commercial banks and revealed a negative sign of liquidity on NIM. However, it is only significant in the presence of external factors. Bourke (1989) and Sufian and Habibullah (2010), among others; found a positive significant result between the level of liquidity and profitability with the proxy of liquid assets to total assets and loans to total assets. It indicates the higher liquidity of a bank, the higher profitability of the bank.

Nevertheless, with the proxy of liquid assets to total assets and loans to total assets, Molyneux and Thornton (1992) and Francis (n.d.) has found a negative and significant relationship of liquidity in relation to profitability with the argument that low levels of bank liquidity improve bank profitability and high levels of liquidity declines bank profitability. The difference in findings from previous studies may due to the different of elasticity of demand for loan from each sample.

On the studies of Islamic banks, the result is mixed and various. Most studies such as Haron and Azmi (2004) and Wasiuzzaman and Tarmizi (2010) found a positive and significant relationship of liquidity and profitability. It argued that Islamic banks have the opposite signs with conventional banks due to the profit and loss sharing basis. However, a study on Indonesia's bank (Izhar and Asutay, 2007) contradicts the result with a negative sign and significant relationship.

A recent study by Idris et al. (2011) showed that liquidity does not meet the requirement of significance and hence it is not an absolute determinant to affect the profitability of Islamic banks in Malaysia.

2.1.5   Asset Quality

Besides of liquidity, asset quality is also an important determinant to impact a bank's profitability because a poor asset quality may cause credit risk and lead to bank failure. Most studies expect the relationship of asset quality and profitability to be negative as bad loans may lower the profitability of a bank. Therefore, asset quality as known as loan quality should be concerned in order to provide good earnings.

Awan (2009) has done a comparison of asset quality between conventional banks and Islamic banks. Hassan conducted a comparison by using a ratio of loan-loss reserve to gross loans, impaired loan over total loans and the percentage of net charge-off (NCO) to gross loans. On another hand, Awan used the indicators such as non-performing loans (NPLs), ratio of NPL to advances/ financing, ratio of provisions to NPLs and ratio of NPLs to deposits. Finally, a result showed that Islamic banks have more productive and efficient asset quality than conventional banks since Islamic banks have low default rate and healthier balance sheet.

There are a number of asset quality indicators used by previous studies. The most common indicators included loan-loss provision to total loans and loan-loss reverses to gross loans. Athanasoglou, Delis and Staikouras (2005), Vong and Hoi (2009), Wasiuzzaman and Tarmizi (2010) and Ramadan, Kilani and Kaddumi (2011) found a significant and inverse relationship of asset quality and profitability for both commercial banks and Islamic banks. An inverse relationship reflects the increased in exposure to credit risk may lower the bank's profit.

Among others, Kosmidou, Tanna and Pasiours (2005), Sufian and Habibullah (2010) and Francis (n.d.) found a contradict result, which is positive relationship of asset quality in relation to bank profitability. Kosmidou et al. used a proxy of loan loss reserves to gross loans shows a positive and significant of asset quality on NIM; however, it is insignificant on ROAA. Kosmidou et al. conclude that high risks may result in high returns. Francis measured asset quality by using total growth in bank deposit indicator and explained that high interest rate margin may increase the profits.

2.1.6   Expenses Management

Expenses management also appears to be one of the important determinants of bank's profitability. A poor expenses management contributes to poor profitability, and an efficiency expenses raise a bank's profit. A bank's expenses included total amount of wages and salaries and the costs of running branch office facilities. The expenses management indicators are expected to be negatively related to profitability as lower the usage of operational costs may help to increase the profit of a bank. However, there are some studies suggested the positive relationship of expenses and profitability because higher payroll expenditures could contribute to require more productive human capital.

Later, Athanasoglou, Delis and Staikouras (2005), Kosmidou, Tanna and Pasiours (2005) and Sufian and Habibullah (2010) also found the negative and statistically significant relationship on expenses with the proxies of cost to income ratio and operating expenses to total assets. Another study done by Ramadan, Kilani and Kaddumi (2011) showed there is a negative significant effect on Return on asset. However, it is statistically insignificant on Return on equity. Similarly, Hassan (2003) who conducted a study on Islamic banks profitability revealed a significantly resulted on

Net Intrest Margin (NIM) but does not have any significant coefficients on Return on Assets (ROA) and Return on Equity (ROE).

On the contrary, Molyneux and Thornton (1992), Bashir (2003) and Haron (2004) found that the expenses affect bank profitability positively. It indicates high expenses or operating costs could generate higher profit for banks. As mentioned earlier, they stated that the productivity of employees increase as the wage rate, associated with the support of efficiency wage theory.

Although most of the studies show a significant result of expenses impact on bank profitability, Izhar and Asutay (2007) asserted insignificant and positive relationship with profitability indicators in the study on Islamic banks. It suggests that the more profitable the bank the higher salary expenses will be.

2.1.7   Gross domestic product (GDP)

The Gross Domestic Product (GDP) is a measurement of total economic activity within an economy. It is considered as an external determinant of banks' profitability given the positive relationship between the growth of the economy and the well-being of the banking sector (Levine and Zevros, 1998). Many have studied the effect of economic growth on banks' profitability. For instance, a single country study in which accessing the impact of financial crisis on bank performance in Indonesia by Sufian and Habibullah (2010). In their studies, they found that there is a positive association between banking sector performance and economic growth. This further confirms the findings of Pasiouras and Kosmidou (2007) in which the macroeconomic condition such as economic growth is statistically significant and positively related to both domestic and foreign banks operating in 15 European countries. Wasiuzzaman and Tarmizi (2010) also found a positive relationship by explaining high economy

growth leads to improvement in credit quality and thus increases banks' profitability.

Another single country study on Tunisian banking industry in which analyze the impact of financial structure, macroeconomic indicators and banks' characteristics on banks' net interest margins, and profitability has been done by Ben Naceur and Goaied (2006). Ben Naceur and Goaied found that the macroeconomic indicators such as GDP have no impact on banks' interest margin and profitability. Another study done by Athanasoglou, Delis and Staikouras (2005) in South Eastern European region also found that GDP does not present any significant effect on banks' profitability.

Whereby many studies have been conducted to analyze the determinants of conventional banks' profitability, Srairi (2009) included the profitability determinants of Islamic bank in his studies. Srairi found that the real gross domestic products in the Gulf Cooperation Council countries are statistically significant in explaining profits and positively related to both Islamic and conventional bank return on asset (ROA).

Instead of merely using GDP as the determinant of banks' profitability, Zantioti (2009) included GDP growth, bank credit/GDP and GDP per capita in his studies of Islamic banking performance among a region. Zantioti found that GDP growth, bank credit/GDP and GDP per capita are significantly in explaining the worldwide Islamic banks' profitability. The results suggest that GDP growth is a banks' profitability determinant in Middle East and North Africa. However, GDP growth is positively related to the banks' profitability in the Middle east while is negatively related to banks' profitability in North Africa. In other hands, GDP per capita related directly and positively to the banks in North Africa.

2.1.8   Inflation

Inflation rate is one of the important determinants of banks' profitability. Revell (1980) believed that inflation could be a factor that influences banks' profitability. This hypothesis was empirically tested by Boyd, Levine and Smith (2000). The authors used various regression techniques in his studies and found that there is a strong nonlinear relationship between inflation and financial sector performance. Boyd et al (2000) concluded that inflation is statistically significant and negatively related to the financial sector performance.

Izhar and Asutay (2007) and Haron and Azmi (2004) using the Consumer Price Index as a proxy for inflation in their studies of banks' profitability. However, they found that the inflation is positively related to the profitability measures, and this further confirmed the work of Haron (1996) and Molyneux and Thorton (1992). In the study of Heggested (1977), the author tried to measure the impact of inflation on profitability indirectly. Instead of using Consumer Price Index as a proxy for inflation, Heggested used per capita income as an independent variable. However, Heggested found that there is no relationship between per capita income and banks' profitability.

Ben Naceur (2003) used regression analysis (panel data with random effects) to investigate the banks' profitability determinants of the Tunisian banking industry performance. Ben Naceur suggested that growth rate are insignificant and have no impact on banks' profitability and interest margin.

In addition, the study by Perry (1992) and Wasiuzzaman and Tarmizi (2010) found very different findings in which the effect of inflation on banks' profitability depends on whether the inflation is anticipated or unanticipated. If the inflation is anticipated, the bank can adjust the interest rate accordingly. Thus, the bank's revenue will increase faster than costs and eventually increase the banks' profitability. On the other hand, if the

inflation is unanticipated and the banks are most probably not able to adjusting their interest rate promptly. This will eventually affect the banks' profitability adversely as the bank costs may increase faster than bank revenues. Vong and Chan (2009) believed that macroeconomic variable like the inflation rate will affect the banks' profitability in Macao. In their study, they found that the inflation rate had a strong impact on the banks' Return on Assets. The bank management has to anticipate the inflation rate and react according to in order to be profitable in inflationary environments.

2.1.9   Money supply

Money supply is a measure of the total amount and value of money in an economy. There are various ways of calculating the money supply. The most conservative includes only currency in circulation and instruments that can be converted to currency on demand (e.g. the amount in a checking account). Most of the studies found that money supply has a positive relationship with banks' profitability. For instances, Bourke (1989) and Molyneux and Thornton (1992) found that money supply is significantly and positively related to banks' profitability. In the study of Bourke (1989), the market expansion is represented by annual growth in the money supply.

The study by Haron and Azmi (2004) is the first using time series techniques of co-integration and error-correction mechanism to analyze the strength of influence between both internal and external determinants and Islamic banks' profitability. They found that there is a significant long-run relationship between the banks' profitability and its determinants such as money supply, inflation, and deposit items and so on. Haron and Azmi suggested that money supply is positively related to the profitability measures of Islamic banks such as bank's portion of income as a

percentage of total assets (BITA) and total income as a percentage of total assets (TITA).

2.1.10   Competition

The economy is recovering after the crisis, however, unemployment rate still considered high. In order to survive in this competitive world, banks need to upgrade themselves to attract customers and also earn a higher profit. This indicates that the competition is high, especially in the banking industries. Rasiah (2010) found that the increasing competition was actually caused by the deregulation of the banking industry where new financial institutions can enter the banking industry. Studies have been done on the effect of competition on bank profitability and there are different results showed. Theoretically, competition will reduce the profit of a bank as the profit now is shared when competitors increased.

Emery (1971) who is the first researcher that studied on the impact of competition on bank profitability has found that there was no significant impact on bank's profit. Besides, Rhoades (1980) also found that there was no relationship between new entry of banks and competition. In a study earlier, Whalen (1988) found that competition does not have a significant impact on bank profits if the banking industry were already competitive. This indicates that the new entry of new banks or new branches will not affect the profit of the existing banks if the existing banks are competitive. This result was backed by Rasiah (2010). Rasiah argued that the market becomes more concentrated due to the banks with competitive advantages becomes secured.

Lindley, James T., James A., James E. and Benton (1992) found there was a negative and insignificant relationship between competition and new entry. Studies showed that Islamic banks which operate in the monopolistic markets are profitable than conventional banks as they only

need to compete with conventional banks, while conventional banks have to compete with both types of banks (Haron, 1996), however, the result is not significant. Although it is not significant, but there was strong evidence showed that the corporate wealth and shareholder wealth were maximized in the monopolistic market. Haron (1996) also found that Islamic banks bring more benefit to the depositors compared to conventional banks. Likewise, there was a negative and insignificant relationship between competition and bank's operations (as cited Hassan and Bahsir, 2003).

Nevertheless, Demirguc-Kunt and Huizinga (2001) found that competition has a negative and significant impact on the banks' performance. The result indicated that the bank's profit is reduced due to the stronger competition. Besides, Hassan and Bahsir (2003) also found that the competition brings a negative impact on bank's performance in their study. In their study, they used number of banks to represent the competition in order to determine the impact of competition on the Islamic bank's profit. Result showed that there is a negative impact but insignificant on the bank profitability except for the net non-interest margin. However, Heggested and Mingo (1976) used the market share as a measurement of competition found a positive relationship. It indicated that the degree of monopoly and power of market share could give a bank of greater control on the prices and service.

2.2 Review of Theoretical Model

2.2.1   Capital Ratio

Capital adequacy indicator is measured by bank equity to total assets. A positive relationship of capital efficiency on bank's profitability has been suggested by Abreu and Mendes (2002). Capital adequacy reflects the banks' ability to hold its own funds to support the business and also to

withstand losses. It could also act as a safety net for adverse selection. Therefore, a well- capitalized bank is assumed to have lower bankruptcy cost and thus, enhance its profitability. On other hands, an agency cost hypothesis suggested by Pramato and Ismail (2006) that low capital ratio reduces agency problem and increases a firm value. Agency cost is defined as the divergent of objective between management and shareholders.

2.2.2   Bank Size

Bank size is one of the internal determinants since a firm expansion is the responsibility of bank's management. According to Boyd and Runkle (1993), the size of a bank is often associated with the concept of economic of scale. Economy theory explained that if an industry is subjected to economic of scale, institution could be more efficient to produce at lower cost. It is expected that economic of scale or bank size is positively related to bank's profitability. To compare large banks with small banks, large banks are assumed to enjoy economic of scale, they could produce a large quantity of products cheaply and efficiently. Therefore, large banks able to generate a higher rate of return than small banks.

2.2.3   Liquidity

Liquidity indicator is used to measure a percentage of assets that comprise the loan portfolio. The result on the relationship of liquidity and banks' profitability are varying from the different studies. A negative relationship has suggested by Francis (n.d.) that lower liquidity could enhance a banks' profitability. When banks have lower liquidity, it reflects the banks are holding less money and lending more to public. Therefore, the banks could generate interest income and imply growth in business. On the contrary, Bourke (1989) concluded that higher liquidity brings to higher profitability

with a positive relationship. The conflict on these studies may be due to the different elasticity's of demand for loans.

2.2.4   Asset Quality

Asset quality indicator represented to indicate weak loans of prudent banks by using loans loss provision to total loans ratio. Some researchers have used deposit-to-loan ratio to measure the different level of credit risk if the practice on income and collateral are different. According to Athanasoglou, Delis and Staikouras (2005), credit risk is expected to have negative relationship with banks' profitability. It supported by the theory of increase exposure to credit risk may lower a bank's profitability. However, Kosmidou, Tanna and Pasiours (2005) suggested a risk-return hypothesis by assuming high risk provide high return with a sound quality of loan.

2.2.5   Expense Management

Expense management which is also referred to operational efficiency is measurements of bank's ability on generate revenue and manage expenses on business. A negative relationship has been supported by Sufian and Habibullah (2010) and Ramadan, Kilani and Kaddumi (2011) studies. The higher the bank expenses, the less efficient of the bank. It indicates when a bank spends too much on its expense; it could reduce the profitability of the bank. However, a positive relation between expenses and profitability has been suggested by Molyneux and Thornton (1992) with efficiency wage theory. This theory explained that, when the wages increases, the productivity of employees is expected to be increase too.

2.2.6   Gross domestic product (GDP)

According to Francis (n.d.), Gross domestic product or economic growth is adopted as a control for cyclical output effect. It is expected to be positively in relation with banks' profitability. As a country's economy growth slows down, it affects credit quality and increase possibility of default, and thus resulting in a lower profitability of a bank. As a result, GDP is expected to have a different impact on different trend growth of the economy.

2.2.7   Inflation

Revell (1980) was the first who discussed on the effect of inflation on bank profitability as he believed that it could be a factor in the causation of variations in bank's profitability. Revell proposed that inflation could affect a bank through different routes such as interest rates and asset prices, exchange rates and operating costs. Bourke (1989) and Molyneux and Thornton (1992) both empirically tested on the effect of inflation based on Revell's hypothesis by using Consumer Price Index (CPI) as a proxy. Both results showed a significant relationship between inflation and bank's profitability.

2.2.8   Money Supply

To determine the effect of money supply on profitability, Bourke (1989) used the annual growth of money supply as a proxy for growth in the market. Bourke concluded a significant positive relationship and suggested that market expansion would enable banks to increase profit. Molyneux and Thornton (1992) duplicated the study of Bourke and found a consistent result. Haron and Azmi (2004) also found a positive relationship and confirmed that growth in the economy as proxies of money supply is shared by Islamic banks.

2.2.9   Competition

Competition is one of the important determinants of banks' profitability. Traditional theory suggests that a new entrant will increase the rivalry or competition among banking industry; however, it is hardly to describe or measure. Therefore, most of the studies discussed competition effect from the angle of regulations or market structure. Heggested and Mingo (1976) believed market structure, such as the degree of monopoly may influence the competition. The higher degree of monopoly in a market, the greater of market share it possesses. As a result, it leads to the greater power of control on its prices and services. Whalen (1988) also suggested that, the entry of new banks will not significantly affect the existing banks when the banking market is already in a competitive condition.

2.3 Proposed Theoretical Model/ Conceptual Framework

The literature review provides some basis theory on the relationship of each determinant and banks' profitability. In this section, theoretical model will be proposed to determine the relationship between each variable and banks' profitability.

In this paper, Return of Asset (ROA) will be used a proxy of profitability measurement. The ratio is defined as profit before taxation and Zakat over total assets. According to Flaimini, Mcdonald and Schumacher (2009), to determine bank's profitability, ROA is a better proxy than ROE. It is because ROE has neglected the financial leverage. (as cited Wasiuzzaman and Tarmizi, 2010).

Figure 2.1: Determinants of the Islamic banks profitability

INTERNAL FACTORS   **EXTERNAL FACTORS**

```
┌──────────────────────┐                      ┌──────────────────────┐
│ Capital ratio (-)/(+)│                      │  Gross Domestic      │
└──────────────────────┘                      │  Product (+)         │
                                              └──────────────────────┘

┌──────────────────────┐                      ┌──────────────────────┐
│      Size (+)        │                      │   Inflation (+)      │
└──────────────────────┘                      └──────────────────────┘

┌──────────────────────┐   ┌──────────────┐   ┌──────────────────────┐
│   Liquidity (-)      │──▶│ Profitability│◀──│  Money Supply (+)    │
└──────────────────────┘   └──────────────┘   └──────────────────────┘

┌──────────────────────┐                      ┌──────────────────────┐
│  Asset Quality (-)   │                      │  Competition (+)     │
└──────────────────────┘                      └──────────────────────┘

┌──────────────────────┐
│     Expenses         │
│ Management (-)/(+)   │
└──────────────────────┘
```
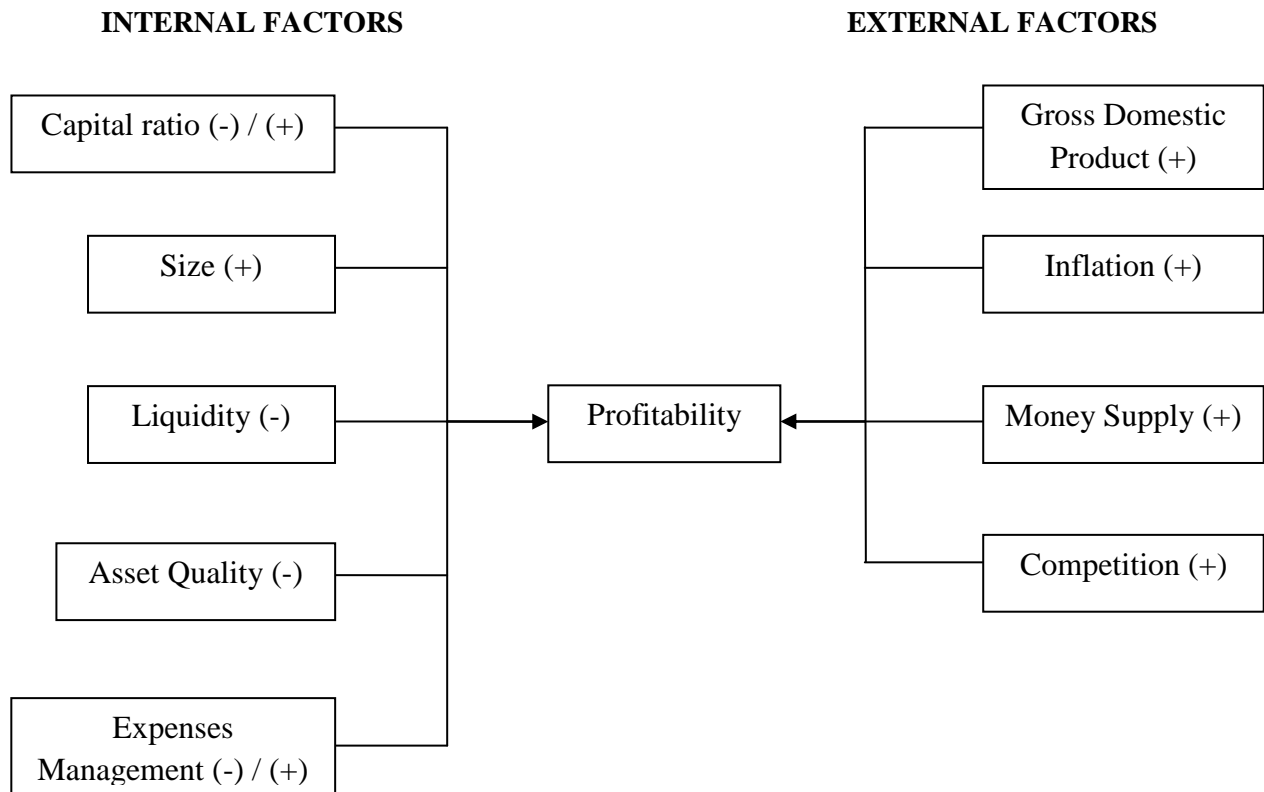
2.3.1   Capital Ratio

Capital ratio is essential to assess the ability of a bank to withstand its losses and act as a cushion or protection against operation losses. Capital ratio is an important variable to determine banks' profitability since it could represent how well the bank has capitalized. The measurement can be defined by using bank's equity to total asset ratio. In determining the relationship between capital ratio and banks' profitability, it is expected to be negatively related. A well-capitalized bank is predicted to be safer (Athanasoglou, Delis and Staikouras, 2005). In Islamic banking industry, involvement in risky activities is prohibited. However, risky investment could bring to higher income based on risk-return trade off theory. Therefore, Islamic bank with higher capital may lower its earning because profit maximization from risky activities is not allowed. However, Abreu and Mendes (2002) argued that a well-capitalized bank with lower risk

could bring higher income in the latter. Hence, the relationship of capital and banks' profitability can be either positive or negative relationship.

2.3.2 Bank Size

Bank size can be referring as the total asset of a bank. It is one of the important variables to determine the banks' profitability. The bank size is expected to be positively related with banks' profitability. In this, it can be explained by the economies of scale theory. A larger bank with the cost advantages could earn more than a smaller bank because a larger bank can produce at a lower average cost per unit. In the long run, the larger a bank expanded itself, the lower cost of production they could enjoy. The positive relationship associated with the theory of economies of scales (Boyd and Runkle, 1993) has been supported by Idris et al (2001) and Bahsir (2003) too.

2.3.3 Liquidity

Liquidity is defined as a percentage of assets that comprise the loan portfolio. The proxies to be used to determine the relationship of liquidity and banks' profitability are such as total loan to total asset and total liability to total asset. A negative influence of bank liquidity is expected to impact on banks' profitability. By adapting the study of Francis (n.d.), it can be discussed that excess liquidity indicates a bank is holding more money and lending less money to the public, therefore, it decreases a banks' profitability. It is possible that a bank is holding excess money for precautionary. On other hand, low liquidity reflects a bank has lent out more money and thus it increases the banks' profitability. In Islamic banking industry, the default rate of Islamic banks is relatively low as compared with the conventional banks due to the profit and loss sharing basis.

2.3.4   Asset Quality

Asset quality is quality estimation on bank's assets such as loans and leases. It can be determined by using loan loss reserve to total loan ratio which indicates the bad loans that have been set aside. Asset quality and banks' profitability is expected to have inverse relationship. It can be explained that lower default rate and credit risk could lead to higher bank's profit. Lower default rate and credit risk reflect a better ability of the public to pay back their loan. As a result, the bank is able to minimize the provision of loan losses and improve its profits at the same time. The inverse relationship has been suggested by Athanasoglou, Delis and Staikouras (2005) and Vong and Chan (2009) as well.

2.3.5   Expenses Management

The expenses management is used to determine whether the usage of operational cost could affect the banks' profitability. The expenses of a bank reflect the cost used by the bank as a percentage of its income. Thus, it can be measured as a proxy of operating expenses to total assets. By adapting the study of Wasiuzzaman and Tarmizi (2010), it is predicted that the sign can be either a positive or negative relationship between expenses management and banks' profitability. In the positive influence perspective, if a bank able to transfer its operational cost to its customer, then it could improve its profitability. Most of the researchers such as Molyneux and Thornton (1992) and Haron (2004) suggested that higher expenditures could bring to higher profitability. Efficiency wage theory purpose by Molyneux and Thornton will be adapted in this research. Greater wages can always be a good motivation for the employees to improve their productivity in their working place. The higher productivity of the employees, the higher level effectiveness and efficiency a bank could produce. So, it brings to higher profitability. However, Sufian & Habibullah (2010), Kosmidou, Tanna and Pasiours (2005) and Ramadan,

Kilani and Kaddumi (2011) proposed that an efficient bank could operate at lower operating cost, and the relationship is negatively related.

2.3.6   Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is an indicator of the standard of living of a country. When the economy is growing well, it is expected to influence the banks' profitability positively. According to Wasiuzzaman and Tarmizi (2010), it is predicted when the economy growth is on-going, the credit quality will be improved. Increased in credit quality indicates the ability of paying back the loan is higher and default rate is lower, thus it increases banks' profitability. In contrast, during recession of economy, the credit quality will turn worse and people do not able to pay their debt, and thus it decreases bank's profitability.

2.3.7   Inflation

Inflation is defined as a rise in the level of prices of goods and services in an economy, and it could reflect the purchasing power of money. When inflation happens, the purchasing power of money will become weaker. However, if a bank could increase its income over the cost, the relationship is expected to be positive relationship. It indicates higher inflation could bring higher profitability to banks. It has supported by Vong and Chan (2009) and Wasiuzzaman and Tarmizi (2010). Wasiuzzaman and Tarmizi refer to the theory of Perry (1992) assumed that if a bank could anticipate the inflation, it helps the bank in making decision of the rate of profit and loss sharing, asset quality and so on. Therefore, the positive relationship could imply when the income is more than the cost.

2.3.8 Money Supply

Money supply is the total amount of money available in the economy. In order to increase money supply to economy, central bank may decrease the reserve requirement of banks and thus, the banks have more money to lend out. Therefore, it leads to higher profitability. It is predicted that the relationship between money supply and banks' profitability is positively related. It is supported by Bourke (1989). Growth of money supply (M2) is used as a proxy, and it was adapted from Haron and Azmi (2004).

2.3.9 Competition

A healthy competition is always good for the banks. There is a small competition in the Islamic banking industry compare to conventional banking industry since there are only 16 Islamic banks in Malaysia. In order to have a stable position in the banking industry, a bank needs to use several years to build its own reputation and their popularity. Therefore, when there are new competitors enters into the market, Islamic banks can retain their own position and do not have much effect on profitability (Whalen, 1988). Besides, it can be suggested that high competitive could lead to competitive advantages and thus improve profitability (Rasiah, 2010). Since competition is difficult to observe, a proxy of market share will be used to determine the relationship of competitive and banks' profitability. It is predicted to be positively related.

2.4 Model Specification

2.4.1 Economic Function

ROA = f (capital ratio, bank size, liquidity, asset quality, expenses management, GDP, inflation, money supply, competition)

2.4.2 Economic Model

$$ROA_t = \beta_0 + \beta_1 CAPITAL\ RATIO_t + \beta_2 BANK\ SIZE_t + \beta_3 LIQUIDITY_t$$
$$+\beta_4 ASSET\ QUALITY_t + \beta_5 EXPENSES\ MANAGEMENT_t +$$
$$\beta_6 GDP_t + \beta_7 INFLATION_t + \beta_8 MONEY\ SUPPLY_t +$$
$$\beta_9 COMPETITION_t + \varepsilon_t$$

Table 2.1: Description of dependent and independent variables

Variable	Description
ROA	Return on asset of bank.
$Capital\ ratio$	The total equity of bank to its total asset.
$Bank\ size$	Bank size refering to the total asset of bank.
$Liquidity$	Total loan of bank to total asset.
$Asset\ quality$	Allowance for loan losses to total asset of bank.
$Expenses\ management$	Operating expenses of bank to total asset.
$GDP(Gross\ Domestic\ Product)$	GDP is expressed in billions of national currency units (MYR).
$Inflation$	Inflation (Index, 2000=100)
$Money\ supply$	In MYR (million) M2=M1*+Narrow Quasi-Money**
$Competition$	Market share of the bank.(Total deposit of bank to total deposit of Islamic bank industry)
β_0	Constant
ε_t	Error term

*M1 = Currency in Circulation + Demand Deposits

**Narrow Quasi-Money= Saving Deposits + Fixed Deposits + NIDs + Repos + Foreign currency Deposits

2.5 Hypotheses Development

The major hypothesis of this study is to examine the importance of internal and external variables in explaining Islamic banks' profitability in Malaysia.

Return on Asset (ROA) was adopted as banks profitability measurement and dependent variable; while internal and external determinants as independent or explanatory. Internal determinants include capital ratio, bank size, liquidity, asset quality and expenses management/operational efficiency while external determinants include Gross Domestic Product (GDP), inflation, money supply and competition. In this study, the test of hypothesis is examined to find any significant relationship between independent variables and the dependent variable.

2.5.1   Capital Ratio

Capital is served as a safety net for banks. In banking industry, maintain a minimum level of capital ratio is required by the regulatory. According to the previous studies, Bourke (1989), Abreu and Mendes (2002) and Vong and Chan (2009) was argued to be positively affected the banks' profitability. Well capitalized bank could enjoy fewer risky activities which subsequently improve in its profit (Bourke, 1989).

However, another argument on negative relationship made by Hassan and Bashir (2003), Athanasoglou, Delis and Staikouras (2005) and Pramato and Ismail (2006) studies. The concept of an agency cost problem was found and supported by the theory of divergent in the shareholder-management objectives could shrink a bank's value. In our study, the capital ratio is expected to have either positive or negative relationship. Therefore, hypotheses were formed between capital ratio and Return of Asset (ROA):

H_o: There is no significant relationship between capital and Return of Asset (ROA).

H$_1$:   There is significant relationship between capital and Return of Asset (ROA).

2.5.2   Bank Size

When a bank size is greater enough, it able the bank to produce the products and services cheaply and efficiently. The concept of economic of scale was found by Boyd and Runkle (1993) to associate with positively with bank's profitability. Boyd and Runkle also stated that larger bank could enjoy lower and cheaper gathering and processing cost. As a result, large banks will earn a higher profit than small banks. It is expected to have a positive relationship between bank size and banks' profitability, which is backed by Idris et al (2001) and Bahsir (2003). Therefore, hypotheses were formed between bank size and Return of Asset (ROA):

H$_o$:   There is no significant relationship between bank size and Return of Asset (ROA).

H$_1$:   There is significant relationship between bank size and Return of Asset ROA).

2.5.3   Liquidity

According to Sufian and Habibullah, (2010), liquidity is expected to be negatively correlated with banks' profitability. Francis (n.d) has proposed when a bank has high liquidity shows the bank is holding more money and lending less money to the public. This has lowered the probability in earning income from loan. Thus, profitability of the bank will decrease. Therefore, hypotheses were formed between liquidity and Return of Asset (ROA):

H$_o$:   There is no significant relationship between liquidity ratio and Return of Asset (ROA).

H_1:   There is significant relationship between liquidity ratio and Return of Asset (ROA).

2.5.4   Asset Quality

Monitoring asset quality is always important since the default risk could drive a bank to solvency. Hence, a bank should improve its asset quality through the process of credit monitoring and processing in order to avoid the credit risk. The previous studies from Athanasoglou, Delis and Staikouras (2005) and Vong and Chan (2009) suggested that the relationship of asset quality with banks' profitability is expected to be negatively related. Though banks tend to generate profit from more lending activities, it can also mean that higher provision is needed. Poor quality of the asset is normally associated with high possibility of default, and thus it will decrease a banks' profitability. Therefore, hypotheses were formed between asset quality and Return of Asset (ROA):

H_o: There is no significant relationship between asset quality and Return of Asset (ROA).

H_1:   There is significant relationship between asset quality and Return of Asset (ROA).

2.5.5   Expenses Management

According to the study by Wasiuzzaman and Tarmizi (2010), the results from previous studies on expenses management are various mixed. Expenses indicated the cost decision of management to run a bank. In the positive perspective, theory of efficiency wages has been proposed by Molyneux and Thornton (1992) and it can be argued that higher payroll expenditures could trigger productive human capital. However, in the negative perspective, those researchers believed that the higher expenditure used in running the bank could cut down its profitability.

Therefore, hypotheses were formed between expenses management and Return of Asset (ROA):

H_o: There is no significant relationship between expenses management and Return of Asset (ROA).

H_1:   There is significant relationship between expenses management and Return of Asset (ROA).

2.5.6   Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is expected to have a strongly positive impact on the profitability measures which is backed by Wasiuzzaman and Tarmizi (2010). During good economic condition, credit quality is assumed to be better. Better credit quality indicates the default rate is lower, and it increases banks' profitability (Zantioti, 2009). In contrast, during recession of the economic, policy maker will require bank to widen the regulation on lending to improve the economic. Therefore, credit quality will decrease and lead to higher default risk; profitability of the bank will expect to decrease.   Therefore, hypotheses were formed between Gross Domestic Product (GDP) and Return on Asset (ROA):

H_o: There is no significant relationship between Gross Domestic Products (GDP) and Return of Asset (ROA).

H_1:   There is significant relationship between GDP and Return of Asset (ROA).

2.5.7   Inflation

The first discussion on inflation was firstly discussed by Revell (1980) while the empirical testing on inflation was firstly done by Bourke (1989). A study by Wasiuzzaman and Tarmizi (2010) suggested that anticipation

in inflation could help a bank to improve its profitability and it is expected to be positively related. In other words, when inflation rate increases, bank's profitability is assumed to be increases. During an inflation period, the profit of a bank is expected to increase more than its costs. If a bank able to adjust its interest rate and margin by forecasting the changes resulted from inflation, it helps in increasing their profits. However, in terms of Islamic banks that do not deal with the interest rate, it could be explained that an accurate forecast on the changes resulted from inflation help the banks to make a decision on the rate of profit sharing, and thus increase the profits. A consistent result is backed by Vong and Chan (2009). Therefore, hypotheses were formed between inflation and Return of Asset (ROA):

H_o: There is no significant relationship between inflation and Return of Asset (ROA).

H_1: There is significant relationship between inflation and Return of Asset (ROA).

2.5.8   Money Supply

In the earlier study, Bourke (1989) believed that market expansion could produce a higher profit. Another similar study by Molyneux and Thornton (1992) used the growth of the money supply as measurement has confirmed the study of Bourke. Money supply is expected to have a positive relationship with banks' profitability, which is also backed the study Haron and Azmi (2004). Therefore, hypotheses were formed between money supply and Return of Asset (ROA):

H_o: There is no significant relationship between money supply and Return of Asset (ROA).

H_1: There is significant relationship between money supply and Return of Asset (ROA).

2.5.9   Competition

In determining the relationship between competition and banks' profitability, most of the studies used the market share as to measure the power holds by a bank and its influence on the market. Indeed, a bank with the greater market share has a power on controlling its prices and services (Heggested and Mingo, 1976). As the study of Rasiah (2010) has discussed in the theory of competitive advantage, a positive relationship is expected in determining the relationship between competition and banks' profitability. Hence, strong competition allows a bank to keep up with continuous innovations and find opportunities to generate more profits. Therefore, hypotheses were formed between competition and Return of Asset (ROA):

H_o: There is no significant relationship between competition and Return of Asset (ROA).

H_1:   There is significant relationship between competition and Return of Asset (ROA).

2.6 Conclusion

This chapter provides conceptual background from the previous studies to strengthen our argument to conduct this study. Gross Domestic Product (GDP), inflation, money supply and competition as the external factors while capital ratio, size, liquidity, asset quality and expenses management as the internal factors have included in our context. Research method and research methodology will be discussed in chapter 3.

CHAPTER 3: METHODOLOGY

3.0   Introduction

This chapter we will provide the discussion about the research methodology. We will discuss about data collection methods, and our research is based on secondary data. The data will collect from Islamic Banks' balance sheet, International Monetary Fund (IMF) and World Economic Outlook (WEO). Data were analyzed by using Eview program with Ordinary Linear Regression (OLS).

3.1 Research Design

In our study of determinant of profitability of Islamic banks in Malaysia, we will include five years data from 2006 until 2010 and use the data from annual report of 16 Islamic banks in Malaysia and industry data from Bank Negara Malaysia to calculate the ratio such as return on asset, capital ratio, total asset, liquidity ratio, asset quality ratio, expenses management ratio and the market share. At the same time, we will also collect gross domestic product (GDP), inflation, and money supply data from World Economic Outlook Database from International Monetary Fund (IMF). All this data represent dependent and independent variables. This data can be use to examine the relationship between the independent variables and the profitability of Islamic banks in Malaysia and provides a reliable and stronger evidence to prove a significant result of this study.

3.2 Data Collection Methods

In our study, we reviewed the articles and annual reports regarding to the Islamic banks in Malaysia. The data collected are mainly from secondary data. The secondary data that used in this paper are included the five years annual reports of each Islamic bank from year 2006 to 2010, Monthly Statistical Bulletin from Bank

Negara Malaysia (BNM) and World Economic Outlook Database from International Monetary Fund (IMF).

3.3 Target Population

The secondary data will be used in this paper to conduct the research on profitability of Islamic Banks in Malaysia. Therefore, the data from 16 Islamic Banks in Malaysia from 2006 to 2010 will be obtained. They are included:

1. Affin Islamic Bank Berhad
2. Al Rajhi Banking & Investment Corporation (Malaysia) Berhad
3. Alliance Islamic Bank Berhad
4. AmIslamic Bank Berhad
5. Asian Finance Bank Berhad
6. Bank Islam Malaysia Berhad
7. Bank Muamalat Malaysia Berhad
8. CIMB Islamic Bank Berhad
9. Hong Leong Islamic Bank Berhad
10. HSBC Amanah Malaysia Berhad
11. Kuwait Finance House (Malaysia) Berhad
12. Maybank Islamic Berhad
13. OCBC Al-Amin Bank Berhad
14. Public Islamic Bank Berhad
15. RHB Islamic Bank Berhad
16. Standard Chartered Saadiq Berhad

3.4 Data Analysis

The collected data were analyzed by using Eview program with Ordinary Least Squares regression (OLS). Eview will be used to analyze the data collected and it provides the result on the relationship between determinants and profitability of

Islamic banks. A panel data method will also be conducted to increase our observation in order to perform a more accurate and reliable data.

The hypotheses will be tested based on the result in OLS regression. The significant level is set at 0.05, and thereby, the variable with a probability of t-statistic below 0.05, it is considers to has significant impact on the profitability of Islamic banks.

3.5 Conclusion

In chapter 3, we have discussed the sources of secondary data collected. The financial ratio technique and microeconomic data will be adopted to estimate the determinant factors. We have listed the 16 Islamic banks that include in our study. We have also discussed the method of data analysis; the Ordinary Least Squares regression has been used for conduct the data to provide empirical result of our study. The next chapter will discuss about data analysis such as propose the result of regression model and discussion on major findings.

CHAPTER 4: DATA ANALYSIS

4.0   Introduction

In the previous chapter, we have done for the data collection, model specification and data processing. In this chapter, we will proceed with the analysis of the results that we obtained through the OLS regression. The contents of chapter 4 are organized as follows. A summary of result will be presented in section 4.1, while the section 4.2 will be the discussion of major findings of our study. Last, section 4.3 will be the conclusion of this chapter.

4.1 Results

$$ROA = 0.971312 - 0.017378CAPITAL + 0.0000000000014SIZE$$
$$+ 0.007032LIQUIDITY - 0.476060AQ - 0.970011EM$$
$$+ 0.000000104GDP - 0.011204INFLATION$$
$$+ 0.000000353MS - 0.015955COMPETITION$$

Table 4.1: Eview Result

Dependent Variable: ROA
Method: Panel Least Squares
Date: 04/16/12   Time: 00:52
Sample: 2006 2010
Cross-sections included: 16
Total panel (balanced) observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CAPITAL	-0.017378	0.010370	-1.675780	0.0982
SIZE	1.40E-12	3.62E-13	3.851762	0.0003
LIQUIDITY	0.007032	0.004951	1.420269	0.1600
AQ	-0.476060	0.067595	-7.042837	0.0000
EM	-0.970011	0.040996	-23.66127	0.0000
GDP	1.04E-07	9.18E-08	1.135608	0.2600
INFLATION	-0.011204	0.005703	-1.964671	0.0534
MS	3.53E-07	1.62E-07	2.182199	0.0325
COMPETITION	-0.015955	0.027871	-0.572457	0.5688
C	0.971312	0.477618	2.033661	0.0458

R-squared	0.934318	Mean dependent var		0.003226
Adjusted R-squared	0.925873	S.D. dependent var		0.036459
S.E. of regression	0.009926	Akaike info criterion		-6.270774
Sum squared resid	0.006897	Schwarz criterion		-5.973020
Log likelihood	260.8309	F-statistic		110.6382
Durbin-Watson stat	1.156042	Prob(F-statistic)		0.000000

4.1.1   F-statistics

H_0 = All independent variable is not important in explaining the dependent variables.

H_1 = At least one independent variable is important in explaining the dependent variables.

Levels of significance is 5%

Reject Ho if the probability value of F tests is less than 0.05; otherwise we do not reject Ho.

Reject Ho since the probability value of F test is 0.0000 less than 0.05 and it concludes that at least one independent variable is important in explaining the dependent variable.

4.1.2   R ^{2}(Coefficient of determination)

Coefficient of determination of the model is 0.934328. On other hand, it means 93.4328% of the variation in dependent variables can be explained by the variation in the independent variables.

4.1.3   Capital Ratio

$H_0=$ Capitol ratio is not significant in explaining the Return on Asset.

$H_1=$ Capital ratio is significant in explaining the Return on Asset.

We reject H_0 when probability fot t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Do not reject H_0 since the probability for t-statistic is   0.0982 which is more than 0.05 and it concludes that capital ratio is statistically insignificant in explaining the Return on Asset.

4.1.4   Bank Size

$H_0=$ Bank size is not explaining the Return on Asset.

$H_1=$ Bank size is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Reject H_0 since the probability for t-statistic is 0.0003 which is less than 0.05 and it concludes that bank size is statistically significant in explaining the Return on Asset.

When bank size increases by 1 million MYR, Return on Asset will increase by 0.0000000000014. Holding other factors constant.

4.1.5 Liquidity

$H_0 =$ Liquidity is not explaining the Return on Asset.

$H_1 =$ Liquidity is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Do not reject H_0 since the probability for t-statistic is 0.1600 which is more than 0.05 and it concludes that liquidity is statistically insignificant in explaining the Return on Asset.

4.1.6 Asset Quality

$H_0 =$ Asset Quality is not explaining the Return on Asset.

$H_1 =$ Asset Quality is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Reject H_0 since the probability for t-statistic is 0.0000 which is less than 0.05 and it concludes that asset quality is statistically significant in explaining the Return on Asset.

When asset quality increases by 1, Return on Asset will decrease by 0.476060. Holding other factors constant.

4.1.7 Expenses Management

$H_0=$ Expenses Management is not explaining the Return on Asset.

$H_1=$ Expwnses Management is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Reject H_0 since the probability for t-statistic is 0.0000 which is less than 0.05 and it concludes that expenses management is statistically significant in explaining the Return on Asset.

When expenses management increases by 1, Return on Asset will decrease by 0.970011. Holding other factors constant.

4.1.8 Gross Domestic Product (GDP)

$H_0=$ GDP is not explaining the Return on Asset.

$H_1=$ GDP is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Do not reject H_0 since the probability for t-statistic is 0.2600 which is more than 0.05 and it concludes that gross domestic product is statistically insignificant in explaining the Return on Asset.

4.1.9 Inflation

$H_0=$ Inflation is not explaining the Return on Asset.

$H_1=$ Inflation is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Do not reject H_0 since the probability for t-statistic is 0.0534 which is more than 0.05 and it concludes that inflation is statistically insignificant in explaining the Return on Asset.

4.1.10 Money Supply

$H_0=$ Money supply is not explaining the Return on Asset.

$H_1=$ Money supply is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Reject H_0 since the probability for t-statistic is 0.0325 which is less than 0.05 and it concludes that money supply is statistically significant in explaining the Return on Asset.

When money supply increases by 1 million MYR, Return on Asset will increase by 0.000000353. Holding other factors constant.

4.1.11 Competition

$H_0=$ Competition is not explaining the Return on Asset.

$H_1=$ Competition is explaining the Return on Asset.

Reject H_0 when probability for t- statistic is less than 5% level of significance. Otherwise, do not reject H_0.

Do not reject H_0 since the probability for t-statistic is 0.5688 which is more than 0.05 and it concludes that competition is statistically insignificant in explaining the Return on Asset.

4.2 Discussion of major findings

As mentioned earlier, nine variables are taken into consideration in evaluating the determinants of bank profitability which are capital ratio, bank size, liquidity, asset quality, expenses management, gross domestic product (GDP), inflation, money supply and competition.

4.2.1 Capital Ratio

For the capital ratio, a proxy of total equity to total asset results in a negative relationship but it had no significant relationship with the banks' profitability. The negative result supports Athanasoglous et al. (2005) theory, which explained a well-capitalized bank is assumed to be safer. Islamic banks' profitability tends to be lower when they are prohibited to involve in any risky activities. However, the insignificant relationship suggests that higher capital ratio in a bank does not provide higher profitability but only to ensure soundness of bank and act as a cushion for losses.

4.2.2 Bank Size

As expected, the bank size is positive and significant in explaining the relationship with banks' profitability, consistent with Boyd and Runkle (1993), Idris et al (2001) and Bahsir (2003) studies. It is suggesting a bank with larger size could enjoy economic of scale and produce at lower average cost per unit. Therefore, it is shown that if an Islamic bank is able to enjoy economic of scale and produce at lower cost efficiently, and thus enhance it profitability.

4.2.3   Liquidity

In our result, liquidity makes a positive impact on banks' profitability, which is supported by Bourke (1989), Sufian and Habibullah (2010) and Haron and Azmi (2004) studies. However, it is an insignificant contribution to the banks' profitability. This result is consistent with previous study on Malaysia's Islamic bank, which conducted by Idris et al (2011). Idris concluded that liquidity does not meet the requirement of significance level and therefore, it cannot be considered as a determinant to Islamic banks' profitability in Malaysia.

4.2.4   Asset Quality

The proxy of loan loss reserve to total loan ratio shows that asset quality has a negative and significant impact on banks' profitability. The inverse result has found in the previous studies by Athanasoglou, Delis and Staikouras (2005), Vong and Hoi (2009), Wasiuzzaman and Tarmizi (2010) and Ramadan, Kilani and Kaddumi (2011). The more provision of loan losses reserves in a bank, the lower profitability it could earn. The result supports Athanasoglou et al. (2005) theory that exposure in credit risk may threaten the banks' profitability. Therefore, Islamic bank should focus on eliminate credit risk as it is significantly to impact bank's profitability.

4.2.5   Expenses Management

We find a negative and significant relationship in determining the relationship of expenses management. Negative relationship indicates lower expenses could increase banks' profitability. This result supports the studies of Sufian & Habibullah (2010), Kosmidou, Tanna and Pasiours (2005) and Ramadan, Kilani and Kaddumi (2011). According to Sufian & Habibullah, the expenses included wages, salaries and cost of running branch should be minimized in order to increase banks' profitability. Our

result indicates Islamic banks should lower the bank expenses, and it will increase the banks' profit.

4.2.6   Gross Domestic Product

The gross domestic product (GDP) shows a positive relationship with the banks' profitability. This positive relationship is consistent with our expectation and further supports the findings of Levine and Zevros (1998), Sufian and Habibullah (2010), Srairi (2009) and Wasiuzzaman and Tarmizi. This indicates that if economy grows, the credit quality will be improved and this further leads to increase of banks' profitability. Besides, the empirical result shows that gross domestic product (GDP) is insignificant in explaining banks' profitability. This result supports the findings of Ben Naceur and Goaied (2006) in which the macroeconomic indicators such as GDP have no impact on banks' interest margin and profitability.

4.2.7   Inflation

The empirical result shows that consumer price index (proxy for inflation) has negative relationship between inflation and profitability. Boyd, Levine and Smith (2000) found there is a negative relationship between inflation and profitability. According to the theory of Perry (1992), it can be assumed that Islamic banks could not anticipate the inflation and thus the inflation cost has decreased its profitability. However in our result shows inflation is statistically insignificant in explaining banks' profitability. This result has supported by the studies of Heggested (1977) and Ben Naceur (2003). They concluded that there is no relationship between inflation and banks' profitability.

4.2.8 Money Supply

For money supply, the M2 resulted in a positive relationship with bank's profitability. The result is consistent with our expectation that money supply is positively related to banks' profitability. Moreover, the result supports the findings of Bourke (1989) and Molyneux and Thornton (1992) in which money supply is positively related to banks' profitability. Besides, money supply is found to be significant in explaining banks' profitability. This result is consistent with the findings of Haron and Azmi (2004). In Haron and Azmi (2004), they found that there is significant long-run relationship between the banks' profitability and money supply.

4.2.9 Competition

As mentioned earlier, competition is measured by the market share of the bank. The regression model shows that this variable has a negative relationship with banks' profitability and is insignificant in explaining the banks' profitability. This result is inconsistent with what we have predicted. However, the empirical result supports the findings of many authors. For instances, Lindley, James T., James A., James E. and Benton (1992) found that there was a negative and insignificant relationship between competition and new entry. This result also backed by the findings of Hassan and Bahsir (2003) in which competition brings negative impact on bank's performance. However, the result is not significant.

4.3 Conclusion

In chapter 4, we have done on the discussion of empirical results and major findings. Besides, the discussions of empirical results also include F- statistics, coefficient of determination and testing of each independent variable. The next chapter will discuss about the implications and conclusion of the study.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

With the completion of data analysis in the previous chapter, we continue with the recommendations for future research, policy implications and conclusion in chapter five. Policy implications will be discussed in the section 5.1 while the recommendations for future research will be discussed in the section 5.2. Conclusion of the study will be presented in the last section.

5.1 Implications of the study

5.1.1 Managerial Implications

5.1.1.1 Capital Ratio

In this study, we found there is an insignificant negative relationship between capital ratio and the profitability of Islamic banks. Although capital is not significant to affect the profitability of Islamic bank, however, a high capital ratio is still assumed has its supportive function on bank's stability. Therefore, Islamic banks should always remain on the level set by government to ensure the stability of banks and tolerate with Islamic banking regulations.

5.1.1.2   Bank Size

Bank size of the banks was represented by the total asset of the bank. We found a significant positive relationship between bank size and profitability of Islamic banks. Bank size is a significant variable in determining the profitability in Islamic banks. Due to the Islamic banking regulation, Islamic banks are not allowed to involve in high risk activities; therefore, Islamic banks can raise their total asset by increasing the loan to customers. In order to increase the loan to customers, the bank should first increase the deposit of the customers so that they will have an excess fund to borrow to the customers. The bank can increase the deposit from customers by offering *hibah* (gift in commercial banks) to attract depositors, so that the banks will now have more money to make loan and other financial activities. Islamic banks can increase their asset by offering lower *riba* (interest rate in commercial banks) to attract more customers to borrow money.

5.1.1.3   Liquidity

Liquidity has an insignificant positive relationship with profitability of Islamic banks. Although liquidity is insignificant in our study, however, it is still possible to be an indicative to affect banks' profitability. In order to maximize profitability of bank, bank should lower the liquidity ratio in order to increase the income from loan. In other words, a bank could reduce the cost of loan to increase the lending to the public. Therefore, the bank could increase its profitability.

5.1.1.4   Asset Quality

Islamic banks should improve their asset quality by lower the loan losses reserve to total loan ratio in order to maximize profit. According to our finding, lower loan losses reserve to total loan ratio will show a higher

profitability of a bank. Islamic banks can tighten their regulation of lending to avoid or reduce default rate and credit risk. When default rate and credit risk decreased, loan loss reserve will decrease as well. Lower loan loss reserve will indicate a lower asset quality ratio, and Islamic bank can earn a higher profit since banks have more money to increase financing activities.

5.1.1.5   Expenses Management

In this study, we found that expenses management has a significant negative relationship with the profitability of Islamic banks. In order to maximize the bank's profitability, policy maker should reduce the unnecessary operating expenses and personnel expenses. Most of the banks nowadays imply cost reduction on their operating expenses by sacking extra employees especially when the economy is in the downturn. Employees with good performance should be remained. The banks should evaluate the performance of employee before sacking them, this is to improve the quality of employees and motivate them to provide better productivity. Although it will drive up the unemployment rate in the industry, however, this is an opportunity for company to search for good quality's employees. Other than that, banks should also regulate the policy and manage the maximum expenses in each department, so that it helps to reduce the cost of banks and maximize the profitability of banks.

5.1.1.6   Gross Domestic Product

We found that there is a positive relationship between Gross Domestic Product (GDP) and profitability of Islamic banks in the measure of return on asset (ROA). However, this relationship is insignificant. GDP may be represented by the country's income; a high GDP will bring more profit to Islamic banks. Although the result shows that the relationship is

insignificant, but economic growth and GDP may still bring an effect to the profitability of banks. Therefore, in order to increase the profit of Islamic banks, policy makers should first increase the GDP. By reducing the tax rate can help to increase the GDP, and it leads the profitability of Islamic banks to increase. Moreover, reducing the unemployment will also help to increase the GDP and profitability of Islamic banks. Government can also increase the GDP by improving the productivity by producing more goods and services with the existing resources. As GDP increased, the profitability will also increase.

5.1.1.7   Inflation

A result shows that there is an insignificant negative relationship between inflation and profitability of Islamic banks. However, inflation still an important factor could affect the credit quality. Therefore, actions should be taken to reduce the inflation. To control inflation, government or policy makers should tighten the monetary policy by keeping low federal funds lending rate in central bank. Besides, fix the country exchange rate can help to reduce inflation and help to reduce the losses of Islamic banks. Other than that, government plays an important role in controlling inflation. Government can increase the restrictions on the transfer of foreign currency reserves, by doing so, the foreign currency reserve can be reduced, and inflation can be lessened.

5.1.1.8   Money Supply

There is a significant positive relationship between money supply and profitability of Islamic bank. Policy maker can consider increasing the money supply when Islamic banking industries is having recession problem. Bank Negara Malaysia can increase money supply by lower the reserve requirement or allow Islamic banks to widen their lending

condition. This may help Islamic banks to have more opportunities to improve profit by increasing their financing activities.

5.1.1.9   Competition

There is a negative relationship between competition and the profitability of Islamic banks. However, this negative relationship is insignificant. Although competition is not significant to affect the performance of banks, however, in the fundamental theory, high competition will reduce actually the profitability of banks. Islamic banks should enhance their competitive advantages in order to maximize their profitability. With good reputation and good customer services, a bank can actually retain their position in the Islamic banking industry.

5.2 Limitations of the Study

There are few limitations in our study. The biggest limitation in our study is we only able to get a sample data of 5 financial years. This is because Islamic banking was set up in September of 1963, however, most of the Islamic banks in Malaysia only set up in recent years, and they only have financial statement for up to 7 years. Some only have 3 to 5 years.

Other than that, due to the panel data we have used to test for our model, we cannot run diagnostic checking using Eviews since the software is unable to perform the function. Most of the test such like autocorrelation testing, multicollinearity testing and heteroskedasticity testing cannot be run due to the limitation of Eviews. Therefore, this is also one of the limitations in our study.

Besides, we take secondary data in our study to analyze the profitability of Islamic banks in Malaysia since it is difficult to be conducted through primary data due to time constraint and money constraint. For the profitability of Islamic banks in Malaysia, we are only able to review secondary data such like articles, journal and financial statements of the Islamic banks to determine the factors that affect the

profitability. When reviewing the articles, there are a lot of arguments from different authors, some of the authors might have the different opinion on the variables used to determine the profitability of Islamic banks.

5.3 Recommendations for Further Research

There are numbers of researchers that have done with the study of determinants that affect the profitability of Islamic banks; therefore, we suggest that future researchers should study on the determinants that were not studied by any researchers before. Future researchers can take more challenging determinants in their future research so that a valuable research and study can be produced. Other than that, because of there are now only 16 Islamic banks in Malaysia, and we believe that in future there will be more Islamic banks set up in Malaysia, therefore, we suggest that future researchers can collect more data and have bigger sample size for analysis and can have more accurate result in their researches. Because of our field of study, we have only touched on the Eviews system by using OLS to run our data, therefore, we suggest future researchers can use other methods to run their model, which may produce different results from what we have done.

5.4 Conclusion

Islamic banking has emerged and grown rapidly since year 1983 and there are now 16 Islamic banks in Malaysia. The examination of our paper is to investigate the relationship of internal and external variables with Islamic banks' profitability in Malaysia. The internal variables are included capital ratio, bank size, liquidity, asset quality and expenses management while external variables are included Gross Domestic Product (GDP), inflation, money supply and competition. The Return on Asset (ROA) will be taken as a measurement of profitability. A data of 16 Islamic banks has taken which covering from year 2006 to 2010.

As overall, bank size, asset quality, expenses management and money supply are significant determinants to impact on Islamic banks' profitability. Bank size and money supply are positively related while asset quality and expenses management are negatively related to banks' profitability. However, the determinants such as capital ratio, liquidity, GDP, inflation and competition do not significantly contribute to Islamic banks' profitability in Malaysia.

Theory of economic of scale explained the positive relationship of bank size as greater size of size could produce efficiently with lower cost. Besides, an adverse relationship in asset quality and expenses management suggests that Islamic banks should decrease the loan reserve and expenses in bank in order to improve its profit. The positive impact of money supply on banks' profitability indicates the more money available in an economy could lead to higher profitability for Islamic banks in Malaysia.

There is a limitation in our scope of study since there are only 5 years of data available for each bank in Malaysia. This study can be expanded over time if the sample size can be increased and thus the result will be more supportive and provides stronger evidence. Any new factors identified also can be taken into consideration to determine the influences on Islamic banks in Malaysia.

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