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**COMPARATIVE ANALYSIS ON THE PROFITABILITY
DETERMINANTS OF LOCAL AND FOREIGN ISLAMIC
BANKS IN MALAYSIA**

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UUM

Universiti Utara Malaysia

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By

SALMIAH BINTI SULIMAN



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*Research Paper Submitted to the
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia,
In Partial Fulfillment of the Requirement for the
Master in Islamic Finance and Banking*

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Master in Islamic Finance and Banking**



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ABSTRACT

The Malaysian Islamic banking industry has recorded the declining on their profitability performance for both Local and Foreign Islamic banks since past few years. These decreasing might emerge from various external and internal environment forces of Islamic banks. The main objective of this study is to identify the determinants that could influence the Local Islamic banks and Foreign Islamic bank's profitability in Malaysia. The dependent variable used in this study is Return on Asset (ROA) meanwhile the independent variables consists of external and internal determinants which are Gross Domestic Products (GDP) and Inflation (INF) for external determinants and Capital Adequacy Ratio (CAR), Asset Quality Ratio (ASQ), Liquidity Ratio (LQR) as well as Bank Size (SIZE) for internal determinants. The study employed balance panel data on 16 Islamic banks in Malaysia which consists of 10 Local Islamic banks (70 observations) and 6 Foreign Islamic banks (42 observations) over the period of 2010 until 2016. The study found that external and internal determinants, namely GDP, INF, and CAR have a significant impact on the of Local Islamic bank's profitability in Malaysia. Meanwhile, for the Foreign Islamic banks in Malaysia, the external and internal determinants namely INF, CAR, ASQ, and SIZE are significant toward their profitability. The findings from this study could provide a comprehensive analysis on the profitability determinants that could influence the profitability of the Local Islamic banks and Foreign Islamic banks in Malaysia. The findings also could contribute the valuable information as an essential guide to the Islamic bank's management team to evaluate the bank profitability in Malaysia.

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Keywords: Islamic banking, local Islamic banks, foreign Islamic banks, profitability, external and internal determinants

ABSTRAK

Industri Perbankan Islam Malaysia telah mencatatkan penurunan prestasi keuntungan bagi Bank Islam Tempatan dan Bank Islam Asing sejak beberapa tahun kebelakang. Penurunan keuntungan ini mungkin disebabkan oleh pengaruh luaran dan juga dalaman terhadap bank Islam. Tujuan kajian ini dijalankan adalah untuk mengenal pasti penentu yang boleh mempengaruhi keuntungan Bank Islam Tempatan mahupun Bank Islam Asing di Malaysia. Pemboleh ubah bersandar yang digunakan dalam kajian ini adalah Pulangan Atas Asset (ROA) manakala, pemboleh ubah bebas terdiri daripada penentu luaran dan dalaman iaitu Keluaran Dalaman Kasar (GDP) dan Inflasi (INF) adalah penentu luaran dan Nisbah Kecukupan Modal (CAP), Nisbah Kualiti Aset (ASQ), Nisbah Kecairan (LQR) juga Ukuran Bank (SIZE) adalah penentu dalaman. Kajian ini menggunakan data panel terhadap 16 bank Islam di Malaysia yang terdiri daripada 10 Bank Islam Tempatan (70 pemerhatian) dan 6 Bank Islam Asing (42 pemerhatian) bagi tempoh 2010 sehingga 2016. Hasil kajian mendapati bahawa penentu-penentu luaran dan dalaman iaitu GDP, INF dan CAR mempunyai kesan yang signifikan terhadap keuntungan Bank Islam tempatan di Malaysia. Sementara itu, penentu-penentu luaran dan dalaman iaitu INF, CAR, ASQ dan SIZE mempunyai kesan yang signifikan terhadap keuntungan Bank Islam Asing di Malaysia. Hasil daripada kajian ini mampu memberikan analisis yang komprehensif mengenai penentu keuntungan yang boleh mempengaruhi keuntungan Bank Islam Tempatan dan Bank Islam Asing di Malaysia. Hasil kajian ini juga dapat memberi maklumat yang berharga kepada pasukan pengurusan bank-bank Islam sebagai panduan penting untuk mereka menilai keuntungan bank di Malaysia.

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Kata kunci: Perbankan Islam, Bank Islam Tempatan, Bank Islam Asing, keuntungan, penentu luaran dan dalaman

First and foremost, I would like to express my gratitude to Allah (SWT) for giving me His blessings in terms of health, strength, knowledge, patience, and perseverance to complete this research paper. Sincerest gratitude is extended to my supervisors, Dr. Raziah Md Tahir for her professional and relentless guidance, coaches, valuable suggestions and positive comments while doing this research paper. My deepest appreciation also goes to Dr Alias Mat Nor and Dr. Hydzul kifli Haji Hashim for their sharing ideas, guidances and advices in a way to complete this research paper.

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LIST OF ABBREVIATIONS

ASQ	Asset Quality Ratio
BNM	Bank Negara Malaysia
CAR	Capital Adequacy Ratio
EF	Efficiency Structure
FIB	Foreign Islamic Bank
FEM	Fixed Effects Model
GDP	Gross Domestic Products
INF	Inflation
LIB	Local Islamic Bank
LQR	Liquidity Ratio
LUTH	Lembaga Urusan Tabung Haji
RMP	Relative Market Power Theory
ROA	Return on Asset
SCP	Structure-Conduct Performance
SIZE	Bank Size

Profitability constituted one of the essential element in determining the success of a bank. Profitability derived from two words, profit and ability which imply the strength and capabilities of the business entity to generate their income (Tulsian, 2014). Similarly, Idris et al. (2011) highlighted in their study that it is essential for the banking sector to have good profitability as the mean to stabilize their banking structure. The statement supported by Menicucci and Paolucci (2016) which justified that the essential of bank's profitability could be acknowledged from macro and micro levels

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Profitability constituted one of the essential element in determining the success of a bank. Profitability derived from two words, profit and ability which imply the strength and capabilities of the business entity to generate their income (Tulsian, 2014). Similarly, Idris et al. (2011) highlighted in their study that it is essential for the banking sector to have good profitability as the mean to stabilize their banking structure. The statement supported by Menicucci and Paolucci (2016) which justified that the essential of bank's profitability could be acknowledged from macro and micro levels

Hence, it is crucial for the banking institutions to identify the determinants that may give impact on the bank's profit. This study seeks to compare the profitability determinants of Local and Foreign Islamic bank in Malaysia that will be covering the external and internal determinants as the focal point of this study.

1.1 Background of the Study

Primarily, banks play a fundamental role in the financial system as it contributes to the economic development. According to Hassan et al. (2011), financial industry performance will contribute to the economic growth meanwhile its incompetence will cause a negative impact on the economic development. Thus, it is believed that banks are the important player in ensuring the financial system stability and due to that, every

country is encouraging to set up the robust banking system as it will bring about the benefit in future circumstances.

1.1.1 History of Islamic Banks in Malaysia

Islamic banking in Malaysia began to emerge with the commencement of Lembaga Urusan Tabung Haji (LUTH) in 1969 which involved in handling the Hajj for Muslims. LUTH was the first institution in Malaysia that adheres to the Islamic principles where Riba or any illegal activities are forbidden in Shariah (Al Nasser and Muhammed, 2013).

The remarkable performance of Tabung Haji had drawn the attention of many organizations to develop full-fledged Islamic bank. A total of 20 experts were appointed to analyse the idea of setting up Islamic financial institutions in Malaysia as well as develop The National Steering Committee in 1981 to evaluate the effectiveness of the establishment Islamic Bank in Malaysia which consider on different aspects. The findings were ample to inscribe the establishment of Bank Islam Malaysia Berhad (BIMB) in July 1983. The establishment of BIMB as first Islamic banks marks the milestone for Islamic financial system evolution in Malaysia (Al Nasser and Muhammed, 2013).

1.1.2 Islamic Windows in Malaysia

The outstanding performance of BIMB yet realized the Government of Malaysia that single Islamic bank is insufficient in creating Islamic financial system in the country. As a result, the government has given authorization to commercial banks in 1993 to open Islamic window and start using the existing framework, staff, and branches. Bank

Negara then introduced scheme known as the "Interest-Free Banking Scheme" in March 1993. As a result, 15 commercial banks offered Islamic windows which consist of three Foreign Commercial banks at that time (Al Nasser and Muhammed, 2013).

1.1.3 Islamic Foreign Banks in Malaysia

The Islamic banking institution continuously grows by the establishment of Bank Muamalat Berhad (BMMB) as a second full-fledged Islamic bank in Malaysia in 1999. Despite commercial banks, the government had also granted the license to international banks to operate in Malaysia. According to Siddiqi (2001), Malaysia was the first country that practice dual banking systems which let to offer Islamic and non-Islamic products at the same time. The existence of international banks known as Foreign banks had directly contributed to the Islamic finance industry development. Among the earliest Foreign Islamic Bank that operates in Malaysia are Al Rajhi Banking & Investment Corporation (Malaysia) Berhad and Kuwait Finance House (Sufian, 2008).

The foreign player entrance into domestic banking industry shows that the Malaysian banking sector involves in liberalization. According to Elyrah (2014), the nature of the financial liberalization is to expand the Malaysia financial sector for the global competitiveness. Bekaert et al. (2005) as cited in Hamdaoui et al. (2016) also stated that most of the countries that involved in liberalization intend to enhance the economic growth through financial sector development.

Recently, under the Bank Negara Malaysia (BNM), there are 16 Islamic banks which consists of 10 Local Islamic Banks and 6 Foreign Islamic Banks in Malaysia. List of Local and Foreign Islamic Banks are as follows:

Table 1.1
Local and Foreign Islamic Banks in Malaysia

No.	Name	Ownership
1	Affin Islamic Bank Berhad	Local
2	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	Foreign
3	Alliance Islamic Bank Berhad	Local
4	AmBank Islamic Berhad	Local
5	Asian Finance Bank Berhad	Foreign
6	Bank Islam Malaysia Berhad	Local
7	Bank Muamalat Malaysia Berhad	Local
8	CIMB Islamic Bank Berhad	Local
9	HSBC Amanah Malaysia Berhad	Foreign
10	Hong Leong Islamic Bank Berhad	Local
11	Kuwait Finance House (Malaysia) Berhad	Foreign
12	Maybank Islamic Berhad	Local
13	OCBC Al-Amin Bank Berhad	Foreign
14	Public Islamic Bank Berhad	Local
15	RHB Islamic Bank Berhad	Local
16	Standard Chartered Saadiq Berhad	Foreign

Source: Bank Negara Malaysia (BNM)

1.2 Problem Statement

Over the years, we have seen the changing competitive environment in the banking industry. These changes had posed a great impact on the operations, productivity as well as bank's profitability including in Malaysia. The structural changes had encouraged the liberalization which allows the foreign players entrance in Malaysian

banking industry. According to BNM (2009), Malaysian financial liberalization could fortify Malaysia's position as an international Islamic financial hub. Chen & Liao (2011) and Hassan et al. (2013) also clarified that financial liberalization would improve the banking industry by encouraging the competitive environment to the Local Islamic banks.

Nonetheless, figure 1.1 and 1.2 clearly illustrate that most of the Local Islamic banks as well as Foreign Islamic banks in Malaysia had suffered from drop off in their profitability which could endanger their continuity in the banking industry.



Figure 1.1
Profitability of Local Islamic Banks in Malaysia
Source: Fitch Connect Database

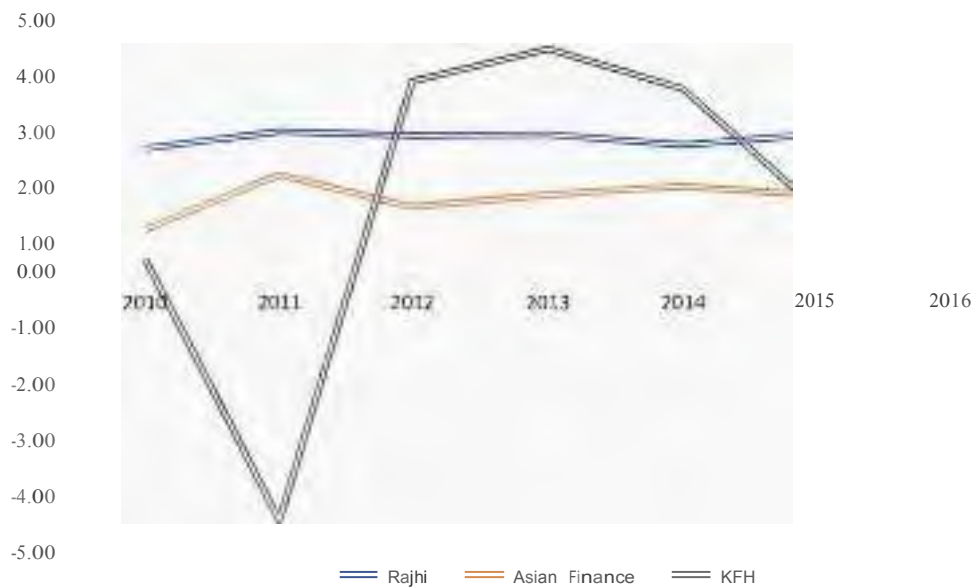


Figure 1.2
Profitability of Foreign Islamic Banks in Malaysia
 Source: Fitch Connect Database

The figures 1.1 and 1.2 above indicated that most of the Islamic banks in Malaysia; Local and Foreign Islamic banks had experiencing downturn on the profitability over 2010 to 2016. This demonstrated that structural changes in the banking industry environment posed a huge challenge to the profitability of Malaysia Islamic banks not only for Local but also Foreign Islamic banks. The ambiguous reason for the decreasing profit had put the curiosity for the author to seek the primary forces that could contribute to the Local and Foreign Islamic bank's profitability in Malaysia. Therefore, due to limited study, it is essential to identify the profitability determinants of Local and Foreign Islamic bank's in Malaysia, from external and internal forces, in other to reinforce their performance.

There were substantial studies on the Islamic banks profitability in Malaysia conducted by previous scholars, such as Mokhtar et al. (2006); Mokhtar et al. (2008); Wasiuzzaman and Tarmizi (2010); Idris et al. (2011); Choong et al. (2012); Abduh and Idrees (2013); Muda et al. (2013); and Mohd Aziz (2017). These studies were concentrated more on identify the factors that contribute to the Islamic bank's profitability in Malaysia as overall.

In addition, Rosly and Bakar (2003); Masruki et al. (2011); Yahya et al.(2012); Suraya and Abdul Rahim (2012); Kamaruddin and Mohd (2013); Ismail et al. (2013); Abduh et al. (2013); Rozzani and Rahman (2013); Kadir et al. (2013); Hazzi and Kilani (2013); Wasiuzzaman and Gunasegavan (2013); Al-Mamun et al. (2014); Ramlan and Adnan (2016); had conducted the study on the comparative analysis of the profitability as well as efficiency between Islamic banks and Conventional banks in Malaysia.

Although there have been a significant number of studies done on profitability of Islamic banks as well as comparison between Islamic and Conventional banks in Malaysia but there is still little quantitative analysis done on the profitability determinants of the Local and Foreign Islamic Banks in Malaysia except for study undertaken by Muda et al. (2013) that assess the profitability determinants between Domestic and Foreign Islamic banks in Malaysia. This study is different with the study conducted by Muda et al. (2013) in term of dependent and independent variables, sampling, time period as well as methodology used.

Thus, above literature had disclosed the research gap where only a few quantitative analyses done on the profitability determinants of the Local and Foreign Islamic banks

in Malaysia. Therefore, this study motivates the author to deal with the gap comprehensively.

1.3 Research Questions

The research questions developed to deal with the research gap are as follows:

1. How the external determinants (GDP and Inflation) influence the profitability of Local and Foreign Islamic banks in Malaysia?
2. How the internal determinants (Capital Adequacy Ratio, Asset Quality Ratio, Liquidity Ratio and Bank Size) influence the profitability of Local and Foreign Islamic banks in Malaysia?
3. Which determinants are mainly contributed to the Local and Foreign Islamic bank's profitability in Malaysian banking industry?

1.4 Research Objectives

The primary aim of this comparative study is to identify the profitability determinants of the Local and Foreign Islamic banks in Malaysia. To accomplish this aim, the following specific objectives have been set forth:

1. To identify the external determinants (GDP and Inflation) influence on the profitability of Local and Foreign Islamic banks in Malaysia.
2. To identify the internal determinants (Capital Adequacy Ratio, Asset Quality Ratio, Liquidity Ratio and Bank Size) influence on the profitability of Local and Foreign Islamic banks in Malaysia.

3. To identify the main determinants that contribute to the Local and Foreign Islamic bank's profitability in Malaysian banking industry.

1.5 Significance of Study

The findings from this study could provide a comprehensive analysis on the profitability determinants covering the Local and Foreign Islamic banks in Malaysia. This study enables the identification of external and internal determinants that contribute to the increases in the profitability of Local and Foreign Islamic banks. Identifying the profitability determinants of Local and Foreign Islamic banks is essential as a guide for the Islamic bank's management team in evaluating their profitability. Therefore, this study contributes a valuable information to understand the determinants that could influence the profitability of the Local and Foreign Islamic banks.

1.6 Scope and Limitations of the Study

As a comparative analysis, the study focuses to identify the profitability determinants on Local and Foreign Islamic banks in Malaysia. Ten (10) Local Islamic banks and six (6) Foreign Islamic banks will be covered in this study. In addition, this study is confined to secondary data which encompasses the financial ratios which are mainly gather from the annual reports of the Islamic banks obtained from Fitch Connect database. The scope of the study period is limited from 2010 to 2016 (7 years) due to the availability of data.

1.7 Organization of the Thesis

This research is detached into five chapters. Chapter One provides the background of the study, problem statement, research question, research objectives, significant of study as well as scope and limitations. Chapter Two concentrate on the literature reviews from previous studies and theories that are related to this study. Data and methodology will be taken up in the Chapter Three. It includes theoretical framework, research design, operational definition and measurement of variables, hypotheses development, data collection and data analysis. Next, Chapter Four presents the results and discussions of this study based on the research questions and the research objectives. Finally, Chapter five contains the conclusion of the study by providing the summary of the finding, contribution of the study, limitation and recommendation for future study respectively.

1.8 Summary

In this chapter, the researcher had discussed the purpose of the study by briefly explain the introduction of the study. The research gaps that occur in the study had been clearly stated in the problem statement and yet, the researcher had come out with the research questions and research objectives as a guideline to address and fulfill the gaps. Significant of the study as well as scope and limitation of the study had also been discussed on this chapter. For the next chapter, which is Chapter Two, the researcher will be explained on the literature review that will explain on return on asset (ROA) as a dependent variable as well as the Gross Domestic Product(GDP), Inflation (INF), Capital Adequacy Ratio (CAR), Asset Quality Ratio (ASQ), Liquidity Ratio (LQR) and Bank Size (SIZE) as independent variables.

This chapter provides the review of the literature that related to the concept of the profitability, the profitability determinants of Local and Foreign Islamic banks and relevant theories. Section 2.1 reviews the literature on the theoretical aspect of profitability. Section 2.2 and Section 2.3 provide an explanation of the external and internal profitability determinants of Local and Foreign Islamic banks respectively. Section 2.4 presents the theories related to the studies. Section 2.5 ended with the chapter summary.

Chapter Two

Literature Review

2.0 Introduction

This chapter provides the review of the literature that related to the concept of the profitability, the profitability determinants of Local and Foreign Islamic banks and relevant theories. Section 2.1 reviews the literature on the theoretical aspect of profitability. Section 2.2 and Section 2.3 provide an explanation of the external and internal profitability determinants of Local and Foreign Islamic banks respectively. Section 2.4 presents the theories related to the studies. Section 2.5 ended with the chapter summary.

2.1 Profitability

Profitability is a primary objective of all business activities. Without profitability, the bank will not be able to sustain in the future (Husain et al, 2015). According to Yahaya and Lamidi (2015), profitability defined as final measure of economic success achieved by a bank in relation to the capital invested. The most often used profitability ratios are return on assets (ROA) and the return on equity (ROE). Hassan and Bashir (2003) used both ROA and ROE in their study to measure the overall performance of Islamic bank's profitability. However, the researchers stressed that ROA precisely reflect the management ability to utilize the bank's financial and real investment resources to generate profits.

Furthermore, Mokni and Rachdi (2014) explained ROA as net income over the total assets which reflects how well a bank's management using the bank's 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.

Rivard and Thomas (1997) as cited in Sufian (2010) also suggest that bank profitability is best measured by ROA as it is not distorted by high equity multipliers and represent a better measure of the firm ability to generate returns on its portfolio of assets. In addition, many regulators concluded that ROA is the best measure of bank profitability (Mohd Aziz, 2017).

Many studies used ROA as a dependent variable in explaining Islamic bank's profitability in Malaysia. For instance, Rosly and Bakar (2003); Sufian (2010); Wasiuzzaman and Tarmizi (2010), Idris et al. (2011); Masruki et al. (2011); Ahmad and Rahman (2012); Wasiuzzaman and Gunasegavan (2013); Abduh et al. (2013); Abduh and Idrees (2013); Al-Mamun et al. (2014); Ramlan and Adnan (2016); Mohd Aziz (2017). Thus, this study will employed the ROA as a measure to identify the profitability of Local and Foreign Islamic banks in Malaysia.

2.2 External Determinants

External determinant is the macroeconomic determinants that related to the economic activities of the country such as Gross Domestic Product (GDP) and Inflation (INF).

The explanation on each determinant is as follows.

2.2.1 Gross Domestic Product (GDP)

GDP is frequently used as an external determinant in measuring the economic activities in the country. Kira (2013) defined GDP as an indicator to measure the income and productivity of a country's economy at a specific period. It is based on the market value of all final goods and services offered in the country within specific time horizon. In this study, the GDP growth rate will be used as an indicator to evaluate the bank profitability.

Previously, Ashraf et al. (2017) had conducted the study on the bank profitability of various Asian countries from 2008 to 2015. From the study, it is found that GDP has positive influence on the bank's profitability. The study equivalent to the Sahari and Ubaidillah (2017) which also conclude that GDP and profitability of Malaysian Islamic banks from 2011 to 2015 had positive relationship. This study indicates that high GDP growth rate had strongly influenced in increase the bank's profitability. It also indicates that during good economic condition, there will be increasing on the demand of banking products and services by the people and thus, it will directly increase the bank profitability.

Moreover, a study by Amzal (2016) on the impact of macroeconomic variables on Indonesia Islamic Banks from 2006 to 2012 also resolved that GDP had positive and significant relationship to the Islamic bank's profit. Similar finding reported by Wasiuzzaman and Tarmizi (2010) which stated that Islamic bank's profit had directly corresponding to the GDP. This positive and significant relationship had pointed out the essentiality of Malaysian Islamic banks to interpret the forthcoming GDP as the guidance for the banks to develop better strategies, hence increase their profitability.

Nonetheless, it is reported by Aslam et al. (2016) that GDP growth had negative and significant to the profitability of Islamic Bank in Pakistan. The authors clarified that increasing of the GDP growth cause decreasing in the profitability of Islamic Bank. The decreasing of profitability during good economic condition might be due to the higher risk faced by the bank. Correspondingly, a study by Francis (2013) also disclosed the negative and significant relationship between GDP and bank profitability. The negative result showed that Sub-Saharan commercial banks had experienced with the low economic growth from 1999 to 2006. A study by Abduh and Idrees (2013) on Islamic banks in Malaysia from 2006 to 2010 had also resolved that the GDP and profitability are negatively significant even though they expect it to be positive at first.

2.2.2 Inflation (INF)

Another essential external determinant that determines the profitability of bank is inflation (INF). Muda et al. (2013) defined the inflation rate as continuous increase of the prices in an economy where high inflation rates correlate to high costs and higher income. Consumer prices index is the common indicators used as the proxy of annual inflation rate. Annual inflation rate is necessary in evaluating the increasing on the Consumer Price Index (CPI) of all products and services (Masood and Ashraf, 2012).

The results from the former studies on the relationship between inflation and bank profitability are mixed. Izhar and Mehmet (2007) which explored the profitability factors of Indonesia Islamic banks resolved that the relationship between inflation and profitability of Indonesian Islamic banks is positive and significant. The result entails that profit of the bank growth more than its cost.

Similar finding by Bashir (2003) reported that inflation affects the performance of Islamic banks positively. He explained that the positive relationship may occur if the Islamic bank's profits largely come from direct investment, shareholding or other trade activities such as Murabahah. However, the inverse relationship may happen if the costs are thriving rapidly compared to the inflation rate.

In contrary, another researcher had also found the negative and significant relationship between the INF and bank profitability. For instance, the study by Kok et al. (2012) on the Islamic banks profitability in Malaysia reveal that inflation affects the bank profitability negatively. Equivalently, Chua (2013) supported that there is negative and significant relationship between banks profitability and inflation rate Malaysian Islamic banks for the period of 2007 to 2011. This result implied the failure of the bank management to predict the inflation in their cost structure to realize profits. Subsequently, the bank will suffer the losses as they charged lower interest rate than its absolute inflation.

2.3 Internal Determinants

Internal determinants that involved in this study are capital adequacy ratio, asset quality ratio, liquidity ratio and bank size. The explanation on each determinant is as follows.

2.3.1 Capital Adequacy Ratio (CAR)

Capital adequacy is one of the fundamental components in assessing the bank's profitability. This is supported by Hadriche (2015) who mentioned that capital adequacy is crucial in evaluating the profitability to ensure the stability and viability

of the banks. In this study, the equity over the total assets ratio had been used as a measurement of capital adequacy.

Previously, it has been revealed by Wahidudin et al. (2017) that capital had positive and significant relationship toward the bank's profitability. In the study, the authors found that capital adequacy ratio have positive and significant effect toward the profitability of both Islamic and conventional banks. The result explained that higher capital adequacy will enhance the profit rate of the banks by having a benefit in accessing the less risky sources of funds. This is persistent to the study by Siddique et al. (2016) which concede that capital is positive and significant to the Islamic Bank's profitability in Pakistan. He proposed that well-capitalized banks are likely to enjoy the economy of scale that would contribute to their profitability.

The similar finding reveals by Almazari (2014) on his study regarding the Impact of Internal Factors on Bank Profitability between Saudi Arabia and Jordan. In determining the capital adequacy, he had also adopted the equity to total asset ratio as a measurement of the capital adequacy. The study had resolved that the capital adequacy had positive and significant correlation toward the profitability of both Saudi Arabia as well as Jordanian banks.

As per contra to the positive and significant relationship between the capital adequacy and the profitability, there is a few researchers concluded that capital adequacy had negative and significant impact on the bank's profitability. For instance, Naeem (2016) resolved in his study that capital adequacy had negative and significant relationship with the Islamic bank's profitability. The result had been supported by Husain et al.

(2015) which intended that capital adequacy is negatively significant to the profitability of Islamic Banks. The result implied that lower capital adequacy ratio will increase the bank's leverage through purchasing additional assets as to produce more products and services that might increase bank's profit.

Besides, Hassan and Bashir (2003) and Wasiuzzaman and Tarmizi (2010) also revealed that capital adequacy and profitability is negatively related. Wasiuzzaman and Tarmizi (2010) who found a negative and significant effect of capital ratio on Malaysian Islamic bank performance recommend that Islamic banks in Malaysia should not give the attention to increase the equity performance in enhancing the profitability. This is due to the decreasing in the equity ratio will lessen the expected cost of bankruptcy and financial distress.

2.3.2 Asset Quality Ratio (ASQ)

Another determinant that could impact the bank's profitability is asset quality. According to Kadioglu et, al. (2017), asset quality is a crucial element for the financial market and the legitimate progress of the banking activities. In banking sector, asset quality is associated with loans quality (financing quality for Islamic banks) that can be measured by impaired loan which consists overdue loans and follow-up loans. There are numerous asset quality indicators that been used by former studies however, in this study, the impaired loan over gross loan will be used as a proxy to asset quality.

In the previous study, most of the researchers found that asset quality had negative and significant relationship to the profitability of the bank. For instance, a study by Naeem et al. (2017) resolved that there is negative and significant relationship between the

asset quality and profitability of the Pakistan bank from the period of 2004 to 2014.

The authors explained that banks which faced high credit risk will tend to lower the asset quality yet decrease the profitability of the banks. The authors yet recommended that it is important for the bank management to oversees and supervise the loans and investment portfolio to ensure the performance of the banks.

Similarly, Wasiuzzaman and Tarmizi (2010) also concluded that asset quality had negatively impact the profitability of the Islamic banks in Malaysia for the period of 2005 to 2008. The finding suggested that Islamic banks in Malaysia need to manage and control its credits risk.

Nonetheless, it is found by Adeolu (2014) that there is positive and significant relationship between the asset quality and profitability of the Nigeria commercial banks from the year of 1999 to 2013. This finding indicates that any banks that manage their credits loans well were more profitable compared to those banks that neglecting their asset quality.

Besides, Adnan (2012) also clearly stated that the asset quality had positively impact to the profitability of Jordan's commercial banks from 2001 to 2012. The result implied the necessities to diversify the bank activities so that the risk can be avoided yet, reinforce the sustainable bank's performance.

2.3.3 Liquidity Ratio (LQR)

Liquidity defined as the capabilities of the bank to fulfill their short-term obligations (Mosab and Hassan, 2017). Normally, liquidity ratios will be based on the relationship

between current assets and current liabilities (Najjar, 2013). There are various ways to measure the liquidity ratios however the total financing over total asset (total loans for conventional banks) will be used in this study.

There are numerous authors who resolve in their studies that liquidity ratio had positive relationship with the bank's profitability. For example, the study conducted by Khan and Ali (2016) had realized that liquidity is positively significant to the profitability of the banks in Pakistan for the period of 2008 to 2014. This indicates that the excess liquidity will allow the bank to fulfil their financing demand from the customers and this will potentially increase their profit in term of financing activities. This is supported by Ahmad (2016) who also indicates the positive and significant impact of liquidity toward the profitability of 116 branches of Standard Chartered Bank of Pakistan during the period of 2004 to 2011.

Similarly, Husain et al. (2015) also found that there is positive and significant relationship between liquidity and profitability of the Islamic banks in Malaysia. This relationship illustrates that Islamic banks in Malaysia are parallel with financing that could help in increase the profit of Islamic banks. This is supported by Rahman et, al. (2013) who initiated that liquidity and profitability of Bangladesh banks is positively significant hence, suggested the higher the liquidity of the banks, the greater profitability could be obtained by the banks.

As per contra, few authors had founded that there is negative and significant relationship between liquidity and the profitability. For examples, Dabiri et al. (2017) concluded that liquidity is negatively significant toward the short and long runs

profitability of five (5) chosen Islamic banks in the United Kingdom from 2005 until 2016. The study did not state the reason for this negative relationship however, it is recommended for the Bank of England to monitor the liquidity level competently in order to intensify and improve the banking industry.

Equivalently, Dahiyat (2016) who investigated the liquidity forces toward the profitability of Jordan's banks from the year of 2012 to 2014 found that liquidity had negative effect to the profitability of Jordan banks. The author clarified the excessive liquidity might affect the profitability of the bank in term of inefficient management and utilization of the current assets. In the same manner, Shafana (2015) also concluded that there is negative and significant relationship between the liquidity and profitability of the financial institutions in Sri Lanka covering the duration from 2009 to 2013. This is due to incompetent management on the optimum level of liquidity that may lead to the increase on the borrowing interest expense rather than incomes earned.

2.3.4 Bank Size (SIZE)

Bank size is another crucial determinant that could impact the bank's profitability. Pervan et al. (2015) had declared that the larger the bank's size, the higher the profit generate by the bank. This is according to the economies of scale which stated that large banks able to acquire cost advantages, obtain better operational competency and ergo, increase the bank's profit. Likewise, Moussawi and Obeid (2011) also engaged that size of banks is essential components in predicting the bank's profitability which ordinarily measure by total asset of the banks. In this study, the natural logarithm of total assets will be used as an indicator of bank size.

Numerous former studies had investigated the relationship between the bank size and profitability yet, the various mixed results were concluded on the effect of bank size toward the profitability. Previously, Sahari and Ubaidillah (2017) had discovered the relationship between bank size and profitability of Malaysian's Islamic bank during the period of 2011 to 2015. The findings from the study found that bank size is positively significant with the profitability of the Islamic banks in Malaysia however, the reason for the findings not clearly mentioned. Similarly, Abduh and Idrees (2013) also conducted study on ten (10) Islamic banks in Malaysia for the period of 2006 to 2010. The authors initiated that bank size is significantly impact the Islamic bank's profitability yet, suggested that bank size is crucial determinants in predicting the Islamic bank's profitability.

Besides, study by Idris et al. (2011) which conducted on nine (9) Islamic banks in Malaysia from 2007 to 2009 disclosed that only bank size has positive and significant relationship with the profitability. Consequently, the authors highlighted that bank size is fundamental forces to discover the bank's profitability. The authors concluded that larger bank size able to enjoy the superior capital markets and lower cost of borrowing, thus enhance the rising of the income.

Nonetheless, Mohd Aziz (2017) had proved that bank size had negative and significant relationship with the profitability in the study of ten (10) Islamic banks for a period of 2009 until 2015. The author found that size of the Islamic banks had negatively affect to their profitability. This is due to larger bank size is not certainly will increase the profitability of the banks. The authors mentioned that even though larger banks could

be benefited from their additional financing sources, however the banks might face with high risk in dealing with liquidity issues and diversifying products.

Moreover, Rahaman and Akhter (2015) had supported that there is negative and significant relationship between the bank size and the profitability of the Bangladesh Islamic banks from the period of 2009 to 2013. This is supported by Ani et al. (2013) on their study of Nigerian bank profitability which revealed that high bank's profitability is not necessarily due to high numbers of total assets. The authors found that the negative and significant relationship between bank size and profitability may result from the diseconomies of scale faced by banks due to unmanageable increasing of size.

2.4 Related Theories to The Studies

This subtopic had provided two theories that related to the study on the profitability includes: Market Power Theory (consist of Structure Conduct Performance Theory and The Relative Market Power) and Efficient-Structure Theory.

2.4.1 Market Power Theory

First theory that will be used in this study is Market Power Theory. Under the Market Power Theory, there are two (2) approaches namely Structure - Conduct Performance (SCP) theory and Relative Market Power (RMP) theory. The discussion of the theories will be as follows:

2.4.1.1 Structure Conduct Performance

The Structure Conduct Performance (SCP) theory was initiated by Mason (1939) and subsequently modified by Bain (1951) according to the Njegomir et al. (2011). The theory had proposed that competition of the firms in the industry would be impacted by their market concentration. Based on the theory, the market concentration intensity could lead to the competition level among the firms. The greater the market concentration, the lower the competition level.

In banking sector, the SCP theory declared that the performance of the banks will rely upon the numerous component such as market concentration, market structure, banks size as well as competition. It means that the higher market concentration will encourage the higher profitability of the bank due to the lower competition in the banking sector.

2.4.1.2 The Relative Market Power

Initially, Relative Market Power (RMP) theory that was developed by Shepherd stated that the remarkable profit of the firm can only be obtained if the firms able to well-differentiated their products as it could enhance the market power of the product (Berger, 1995). Under the theory, it is declared that the market power and potential of a firm will be determined by their market shares. The RMP hypothesis had suggested that when market share of the firms increase, their market concentration also will be increase thus, enhance the performance of their firms. In banking sectors, market power of the industry could only be acquired by the banks that are stable and strong yet, this will help the bank to increase their performance.

2.4.2 Efficiency Structure Theory

Efficiency Structure (ES) Theory was first developed by Demsetz (1973) in substitution to the Market Power (MP) theory. The theory presupposed that better management and scale efficiency could increase the market concentration yet, increase the profits of the firm. Besides, the theory also clarified that better management could also increase the market share consequently enhance the better performance of the firm (Athanasoglou et al., 2005).

In banking sector, any banks will have higher profit if they operate more efficient compared to their rivalry (Onuonga, 2014). The ES theory had posited that bank who has better management could diminish their operational expenses yet able to acquire the higher profits even with smaller banks (Saona, 2011).

2.5 Summary

This chapter had explained the literature review of former studies comprehensively. The literature review had been covered on three (3) aspects namely profitability, external and internal determinants and related theories to the study. Review on the profitability provides the general concept of this study. The reviews on external and internal factors from previous studies implies the evidence of the relationships between those determinants and profitability. On the other hand, the theories consisting of Market Power Theory and Efficiency Structure Theory explain how profitability, external and internal variables correlated with each other. For the next chapter, the researcher will discuss on the methodology for this study.

Chapter Three

Methodology

2.0 Introduction

This chapter illustrate the methodology of this study. This chapter began with the theoretical framework, followed by research design, operational definition and measurement, hypotheses development, data collection and data analysis techniques.

3.1 Theoretical Framework

Generally, theoretical framework is important in either quantitative research, qualitative research or mixed methods research. All the researcher need to have a genuine theoretical framework for the study to ensure the rationalize and importance of the study (Lederman and Lederman, 2015). In this study, ROA as a proxy to the profitability will be used as dependent variable while GDP, INF, CAR, ASQ, LQR and SIZE will be used as independent variables. The proposed framework is shown in Figure 3.1 below:

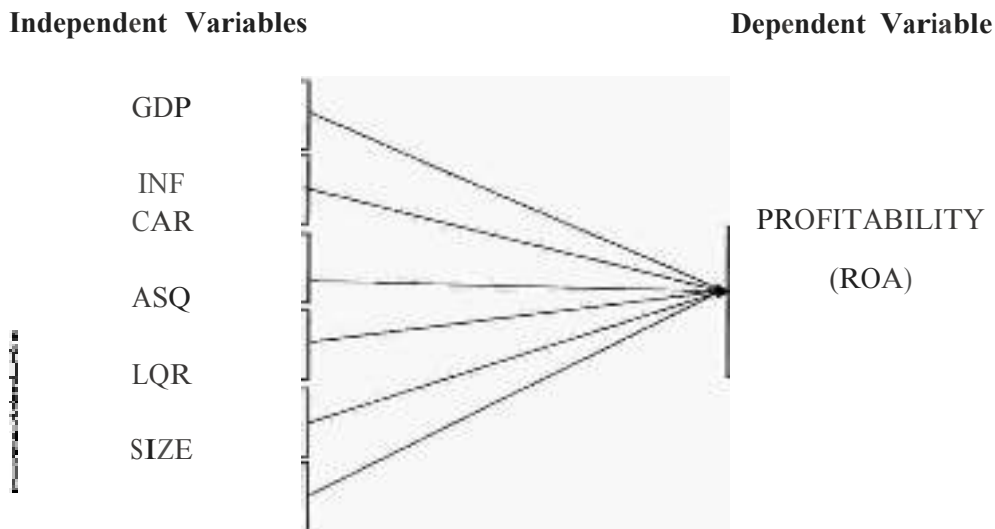


Figure 3.1
Theoretical Framework for Profitability Determinants of Local and Foreign Islamic Banks in Malaysia
 Sources: Adopted from Previous Research

Figure 3.1 above illustrate the theoretical framework which consist of dependent and independent variables. ROA as a proxy of profitability acts as a dependent variable while independent variables consist of external and internal determinants. The external determinants used are GDP and INF while the internal determinants are CAR, ASQ, LQR, and SIZE. This model had referred the previous research that studies on the determinants of the Islamic bank's profitability.

3.2 Research Design

Sekaran (2008) had defined the research design as a draft or blueprint that develop in response to the research question and controlling the variance. Control variance is the way which the researcher identified the determinants that might be devoted to the results of the research. Besides, research design also acts as a plan that guides the research on how to answer the research problem.

The research designs classified into three (3) types which are qualitative research design, quantitative research design or mixed method as resolved by Cohen (2011) as cited in Daniel (2016). Subsequently, Bryman (2001) as cited in Daniel (2016) had defined the quantitative research design as research that asserts the numbers and figures in the data collection and data analysis. The data collection can be either primary or secondary data. As been explained by Glaser (1963), primary data is original information which collected by the researcher to address the research question meanwhile secondary data is data that formerly exists.

In other to fulfill the research objectives and answer the research questions, the quantitative research design and secondary data collection will be employed in this study. Imperatively, secondary data could curtail the time as well effort of the researcher in analysing the result of the study.

3.3 Operational Definitions and Measurements

Operational define as a procedure of identifying scales that communicate to the difference in concept implicated in a research process (Zikmund et al., 2010). There is six (6) determinant that will be tested towards the profitability of Local and Foreign Islamic banks which are GDP, INF, CAR, ASQ, LQR and SIZE. The operational definition and measurement of dependent and independent variable can be presented as table 3.1 below:

Table 3.1

Operational Definitions and Measurement of Variables

Variables	Operational Definition/M Measurement	Expected Sign	Sources
Return on Asset (ROA)	ROA reflect the efficiency of the bank to generate their profit from their total assets. ROA measured by:	N/A	Kabajeh et al. (2012) & Fitch Connect
$ROA = \text{Net Income} / \text{Total Assets}$			
Gross Domestic Product (GDP)	GDP is an indicator to measure the income and productivity of a country's economy at a specific period.	(+)	Kira (2013) & World Bank
Inflation (INF)	Inflation rate is a continuous increase in the prices in an economy. Consumer prices index is the common indicators that were used as the proxy of annual inflation.	(-)	Muda et al. (2013) & World Bank
Capital Adequacy Ratio (CAR)	Capital adequacy is the capability of capital to support the assets growth. It also refers to the extent of capital that requires by banks to cope with the risks that being faced, to absorb future losses and to discover their growth into risky but profitable undertaking. It is measured by:	(+)	Mehta and Bhavani (2017) & Fitch Connect
$\frac{\text{Total equity}}{\text{Total Assets}}$			
Asset Quality Ratio (ASQ)	Asset quality is a crucial element for the financial market and the legitimate progress of the banking activities. In the banking sector, asset quality is associated with the loans quality (financing quality for Islamic banks) that can be measured by an impaired loan which consists overdue loans and follow-up loans. It can be measured by:	(-)	Kadioglu et al. (2017) & Fitch Connect
$\frac{\text{Impaired Loan}}{\text{Gross Loan}}$			

Table 3.1 (continued)

Variables	Operational Definition/Measurement	Expected Sign	Sources
Liquidity Ratio (LQR)	Liquidity ratio reflect the capabilities of the bank to fulfill their short term obligations. Normally, liquidity ratios will be based on the relationship between current assets and current liabilities. The liquidity ratio measured by: $\frac{\text{Total financing}}{\text{Total Assets}}$	(+)	Mosab and Hassan (2017), Najjar (2003) & Fitch Connect
Bank Size (SIZE)	Bank size uses to predict the bank's profitability which ordinarily measures by the total asset of the banks. Log Total Assets	(+)	Moussawi and Obeid (2011) & Fitch Connect

3.4 Hypotheses Development

In this section, the researcher had developed the hypotheses of this study. The hypotheses development is based on the framework illustrated in Figure 3.1. There are six independent variables that involved in this study which are GDP, INF, CAR, ASQ, LQR, and SIZE. Meanwhile, ROA which acts as the proxy of profitability is the dependent variable of this study.

The researcher had developed all the hypotheses to figure out which determinants will give either positive or negative impact toward the profitability of Local and Foreign Islamic banks in Malaysia. In that manner, the researcher will analyse all these hypotheses by using the relevant methods to obtain the genuine results.

From the previous studies, most of previous researcher had concluded that GDP has a positive and significant impact on the profitability. Among the researchers are Ashraf et al. (2017), Sahari and Ubaidillah (2017), Amzal (2016) and Wasiuzzaman and Tarmizi (2010). Therefore, it is hypothesized that:

H_{a1}: There is a positive and significant relationship between gross domestic products and profitability.

Besides GDP, inflation (INF) is another external determinant that been used in this study. Based on the previous study, there is a negative and significant relationship between INF and profitability. The findings from the Kok et al. (2012) and Chua (2013) had supported the negative and significant relationship of the INF toward the profitability. Therefore, this study hypothesized that:

H_{a2}: There is a negative and significant relationship between inflation and profitability.

Besides, there are also internal determinants that could influence the profitability of the Local and Foreign Islamic banks in Malaysia. Firstly, is capital adequacy ratio (CAR). CAR was expected to have a positive and significant relationship with profitability. It has been proved by the numerous authors in their studies which includes Wahidudin et al. (2017), Siddique et al., (2016) and Almazari (2014). Thus, this study hypothesized that:

H_{a3}: There is a positive and significant relationship between capital adequacy ratio and profitability.

The hypothesis below shows the assumption of the asset quality ratio (ASQ) with the bank profitability. From the previous study, the ASQ had a negative and significant relationship with the profitability of the banks. This is due to that high non-performing loan will lower the asset quality of the bank yet, decrease its profitability. Among the researcher that found the negative and significant relationship of the ASQ toward the profitability are Naeem et al. (2017) and Wasiuzzaman and Tarmizi (2010). Therefore, it is hypothesized that:

H_{a4}: There is a negative and significant relationship between asset quality ratio and profitability.

Another determinant of the bank profitability is liquidity ratio (LQR). LQR shows the positive and significant relationship with the bank profitability that resulted from previous studies such as Khan and Ali (2016), Ahmad (2016), Husain et al. (2015), Rahman et, al. (2013) as well as Wasiuzzaman and Tarmizi (2010). Therefore, this study hypothesized that:

H_{a5}: There is a positive and significant relationship between liquidity ratio and profitability.

Previously, the determinant of bank profitability which is bank size (SIZE) has positive and significant relationship with the bank profitability as proved by Sahari and Ubaidillah (2017), Abduh and Idrees (2013) and Idris et al. (2011). Thus, this study hypothesized that:

H_{a6}: There is a positive and significant relationship between bank size and profitability

3.5 Data Collection

The data collection for this study briefly discussed the data sources, sampling, and data collection methods. The details are elaborated in subsections below:

3.5.1 Data Sources

The nature of the data for this study is secondary and balanced panel data. The data in this study obtained from the individual annual report of sixteen (16) Islamic banks that were published in the Fitch Connect database. The data in this study had already converted into the financial ratio that covered the period from 2010 until 2016. This time period was chosen due to the availability of the data. Besides, the data for GDP and INF was extracted from the World Development Indicators.

3.5.2 Sampling

The sampling of this study is all the Malaysian licensed Islamic banks that were listed under the Bank Negara Malaysia (BNM). Based on the BNM, there are sixteen (16) Islamic Bank which consist of ten (10) Local Islamic banks and six (6) Foreign Islamic banks that operate in Malaysia (Refer Appendix I). Referring to the sixteen (16)

Islamic banks, the researcher needs to identify whether there is sufficient and available data of the banks in order to support the finding later.

3.6 Data Analysis

This section explained the data analysis method to test the variables. The data analysis software that was used in this research is EVIEWS 9. To answer the research questions and research objectives of the study, the researcher will conduct three stages of data analysis; (1) descriptive statistic; (2) correlation analysis; and (3) multiple regression analysis. The techniques used for data analysis is explained as below:

3.6.1 Descriptive Statistic

A descriptive statistic is one of the data analysis technique that been adopted in this study. Martin and Larson (2006) exemplify descriptive statistic as the process of summarizing the data, explaining the sample and presenting the information regarding the population. It is usually presented in the forms of graphs, charts, and pictures.

3.6.2 Correlation Analysis

Another technique that been used in this study is correlation analysis. Gogtay and Thatte (2017) describe the correlation analysis as the connection between two or more variables that assumed to have a linear connection among the quantitative variables. Thus, it can be understood that correlation analysis particularly determines the degree of association among the variables and their direction.

3.6.3 Fixed Effect Model

The Fixed Effect Model (FEM) will be adopted in the multiple regression analysis of this study. The reason for used the FEM is due to the involvement of single sampling country which is Malaysian only. Baltagi (2000) had mentioned that it is suitable to adopt the FEM if the study had considered definite and specific organizations. Besides, it is also stated by Reyna (2007) that FEM could be used in determine and analyse the determinants within an entity such as individual, country or company. This is also supported by Sufian (2010) who declared that FEM been used in his study due to the existence of only Malaysian Islamic banks during the coverage period.

Another former researcher who also used FEM in determine the bank profitability in single country are Ali (2018) who study in Pakistan Islamic and Conventional banks; Knezevic and Dobromirov (2016) in Serbian banking industry, Gunes (2014) in Turkey banking sector; Jabbar (2014) in Pakistan Commercial Bank; Obamuyi (2013) in Nigeria's bank; and Abduh and Idrees (2013) in Malaysian Islamic banks.

3.6.4 Multiple Regression Analysis

Another technique employed is multiple regression analysis. Multiple regression analysis is the statistical analysis that used to interpret the relationship between a dependent variable and several independent variables (Zsuzsanna and Marian, 2012). The analysis will be adopted in forecasting the impact of the independent variables over the one dependent variables.

3.6.5 Multiple Regression Models

The multiple regression models in this study were adopted to measure the relationship between internal and external determinants toward the profitability of the Local and Foreign Islamic Banks in Malaysia. The variables of this study comprise of GDP, INF, CAR, ASQ, LQR, and SIZE. The regression equations for this study will be divided into two model which the first model is for external determinants model meanwhile the second model for internal determinants. The models will be shown as below is as follow:

$$ROA_{it} = \alpha_0 + \beta_1 CAR_{it} + \beta_2 ASQ_{it} + \beta_3 LQR_{it} + \beta_4 SIZE_{it} + \varepsilon_{it}$$

(i) External Determinants

$$ROA_{it} = \alpha_0 + \beta_1 GDP_{it} + \beta_2 INF_{it} + \varepsilon_{it} \quad (1)$$

(ii) Internal Determinants

(2)

Where, α = Constant
 i = Banks
 t = Year
 ε_{it} = Error term of bank i on time t

Dependent variable:

ROA = Return on Asset

Independent variables:

GDP		Gross Domestic Products
INF		Inflation
CAR	=	Capital Adequacy Ratio
ASQ	=	Asset Quality Ratio
LQR	=	Liquidity Ratio
SIZE	=	Bank Size

3.7 Summary

This chapter discusses the theoretical framework, research design, operational definition and measurement, hypotheses development, data collection and data analysis techniques. The data used in this research is financial ratios from annual reports of the Local and Foreign Islamic banks in Malaysia which are published in the Fitch Connect database. The period of the study is 7 years from 2010 to 2016. The independent variables of this study consist of two external determinants (GDP & INF) and four internal determinants (CAR, ASQ, LQR & SIZE) meanwhile the dependent variable is ROA. The method that will be used is the descriptive statistic, correlation analysis, and multiple regression analysis.

Chapter Four

Results and Discussion

4.0 Introduction

This chapter discusses the results of this study. The sequence of discussion of this chapter started with descriptive statistics of the studied variables in Section 4.1, correlation analysis in Section 4.2 and subsequently, the results of the multiple regression analysis in Section 4.3 until 4.7.

4.1 Descriptive Statistics of Variables

Descriptive statistics describe the basic features of the data in this study. The aim of these statistics is mere to summarize the data set includes mean, standard deviation, skewness and kurtosis. Miller (2013) describe mean as central tendency statistic of population or sample meanwhile, standard deviation is the dispersion scope of data from its mean. Besides, Petar and Sanja (2010) resolved skewness as the asymmetry severity of a distribution meanwhile, kurtosis defined as the peakedness or flatness of a distribution.

Table 4.1 presents the descriptive result of the variables for Local Islamic banks in Malaysia that were used in this study. Meanwhile, Table 4.2 presents the descriptive result of the variables for Foreign Islamic banks in Malaysia.

Table 4.1

Descriptive Statistics of Variables for Local Islamic Banks in Malaysia

Variables	Mean	Std. Deviation	Skewness	Kurtosis	N
ROA	2.22	0.66	1.05	3.70	70
GDP	0.726	0.067	0.29	2.34	70
INF	0.346	0.109	0.47	1.79	70
CAR	6.86	1.22	-0.43	2.41	70
ASQ	1.95	1.41	1.86	6.63	70
LQR	63.46	10.81	-0.86	2.92	70
SIZE	7.43	0.34	0.09	2.94	70

Table 4.1 shows the descriptive statistics of the dependent variables and the independent variables of Local Islamic Banks in Malaysia used in this study. The dependent variable is ROA while the independent variables are GDP, INF, CAR, ASQ, LQR, and SIZE. The result implied that the mean for ROA of 70 Local Islamic banks in Malaysia over the study period is 2.22 which indicate that Local Islamic banks in Malaysia experienced high ROA during the study period. The low standard deviation of 0.66 shows that profitability level of Islamic banks in Malaysia is less varied between individual banks. The mean value for GDP is 0.726 which indicate that during the study period, GDP for Malaysia was at steady growth of 0.73 percent with standard deviation at 0.067. For the inflation, the mean value is 0.346 which also reflects the lower inflation rate at 0.35 percent with the standard deviation of 0.109.

Besides, Table 4.1 also shows the mean value for LQR is 63.46 which is the highest mean and it implies that the LQR of Local Islamic banks in Malaysia is 63 percent. The mean value for CAR is 6.86 which is indicate that the capital adequacy of Local Islamic banks in Malaysia was 6 percent and the banks were experiencing high capital

adequacy during the study period. Meanwhile, the mean value for ASQ is 1.95 which indicates that asset quality of Local Islamic banks in Malaysia experienced steady growth at 2 percent. Mean of SIZE of Local Islamic banks is 7.43 and this indicates that SIZE of Local Islamic Banks in Malaysia is contributing 7 percent of total assets during the study period.

The skewness and kurtosis of the Local Islamic bank in Malaysia also showed in Table 4.1 above. It is suggested by the Hair et al. (2010) that the normal distribution for the skewness is ± 2.58 meanwhile the Kurtosis is ± 1.96 . This rule of thumb will be applied in this study. By applying the rule of thumb, it indicates that skewness of Local Islamic banks is well within ± 2.58 thus, its suggested that the dispersion of the Local Islamic banks is normal. Meanwhile, the kurtosis of Local Islamic banks in Malaysia is not normally distributed as most of the value show is more than 1.96 except for the INF.

Table 4.2
Descriptive Statistics Variables for Foreign Islamic Banks in Malaysia

Variables	Mean	Std. Deviation	Skewness	Kurtosis	N
ROA	2.05	1.27	-3.04	16.42	42
GDP	0.726	0.067	0.29	2.35	42
INF	0.346	0.109	0.47	1.79	42
CAR	11.22	4.66	0.49	1.82	42
ASQ	3.66	4.62	2.50	9.67	42
LQR	58.76	15.80	-2.56	9.84	42
SIZE	7.37	0.94	1.69	4.03	42

Table 4.2 shows the descriptive statistics of the dependent variable and the independent variables of Foreign Islamic Bank in Malaysia. The result shows that the

mean value for ROA is 2.05 and standard deviation of 1.27. This indicates that Foreign Islamic banks in Malaysia are experienced average profitability of 2 percent during the study period from 2010 to 2016. The mean value for GDP is 0.726 which indicate that during the study period, Foreign Islamic Banks in Malaysia experienced GDP growth of an average 0.73 percent per annum. In the case of inflation, the mean value is 0.346 which reflects the lower inflation rate at 0.35 percent with the standard deviation of 0.109.

Besides, Table 4.2 reveal the mean value for LQR is 58.76 which is the highest mean and it implies that the LQR of Foreign Islamic banks in Malaysia is averagely grow at 58 percent. The mean value for CAR is 11.22 which indicates that the capital adequacy of Foreign Islamic banks in Malaysia was 11 percent and the banks were experiencing high capital adequacy during the study period. Meanwhile, the mean value for ASQ is 3.66 indicates that asset quality of Foreign Islamic banks in Malaysia experienced growth of asset quality at 3 percent. Mean SIZE of Foreign Islamic banks is 7.37 and this indicates that SIZE of Foreign Islamic Banks in Malaysia is contributing 7 percent of total assets during the study period.

Besides, by applying the same rule of thumb, the skewness of Foreign Islamic banks in Table 4.2 indicated that there is normal dispersion of Foreign Islamic banks as the value is well within ± 2.58 . Concurrently, the kurtosis of Foreign Islamic banks in Malaysia is not normally distributed as most of the value show is more than 1.96 except for the INF and CAR.

Table 4.3

Descriptive Statistics of Local and Foreign Islamic Bank

Variables	Mean		Std. Dev.	
	LIB	FIB	LIB	FIB
ROA	2.22	2.05	0.66	1.27
GDP	0.726	0.726	0.067	0.067
INF	0.346	0.346	0.109	0.109
CAR	6.86	11.22	1.22	4.66
ASQ	1.95	3.66	1.41	4.62
LQR	63.46	58.76	10.81	15.80
SIZE	7.43	7.37	0.34	0.94

Note: LIB (Local Islamic Bank), FIB (Foreign Islamic Bank)

Table 4.3 resolved that during the period of 2010 to 2016, Local Islamic banks were more profitable than the Foreign Islamic banks in Malaysia as the mean of ROA for the Local Islamic bank, 2.22, is much higher than the ROA of Foreign Islamic bank which is 2.05.

For the external variables, the GDP growth has been positive and growing at an average of 0.726 and standard deviation of 0.067 which this implies that the GDP growth in Malaysia is relatively stable. In the side of inflation, it showed that the mean value of inflation is 0.346. This show that inflation rate over the period is substantially low and it could benefit the economy.

For the internal variables, the mean value of CAR for Foreign Islamic bank are higher (11.22) than Local Islamic bank (6.86). This indicates that Foreign Islamic bank is

highly capitalised than the Local Islamic bank. Besides, the mean value of the ASQ of the Foreign Islamic banks (3.66) is slightly higher than the Local Islamic banks (1.95). This is might due to the decreasing of impaired financing (loan) in Foreign Islamic banks as all financing gave out were being paid on time. In term of LQR, the mean value of Local Islamic banks (63.46) is higher than foreign Islamic banks (58.76). This indicates that Local Islamic banks are more liquid than Foreign Islamic banks. For the SIZE, the mean value in Local Islamic banks (7.43) is slightly higher than Foreign Islamic banks (7.37) which this implies that the total asset own by the Local Islamic banks is slightly higher than Foreign Islamic banks and it allows the Local Islamic banks to achieve economies of scale.

4.2 Correlation Analysis

The correlation matrix shows the expected correlation signs from the regression. This correlation analysis runs by the researcher as a method to determine the level of relationship between independent and dependent variable. Table 4.4 shows the correlation matrix for Local Islamic Banks while Table 4.5 shows the Foreign Islamic banks in Malaysia.

Table 4.4

Correlation Matrix for Local Islamic Banks in Malaysia

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
ROA	1						
GDP	0.2809	1					
INF	-0.1340	-0.0660	1				
CAR	0.6346	0.0640	-0.0539	1			
ASQ	0.0763	0.3387	-0.1069	0.1157	1		
LQR	-0.1703	-0.3059	-0.0263	-0.0995	-0.5793	1	
SIZE	-0.1499	-0.2580	0.0541	-0.4525	-0.3380	0.3982	1

Table 4.4 shows the correlation analysis for independent and dependent variables for the Local Islamic banks in Malaysia. The ROA ratio is positively correlated with GDP as the coefficient of correlation is 0.2809. This shows that when the GDP increases, the ROA also will increase by 0.2809. Besides, the INF shows negatively correlated with the ROA as its coefficient correlation is -0.1340. This indicates that when inflation increases, the ROA will decrease.

The ROA and CAR show positive correlation which indicates the increase in the CAR will increase the ROA with correlation of 0.6346. The ASQ also showed the positive correlation with ROA which is 0.0763. For LQR and SIZE, both independent variables have negative correlation toward the ROA with the correlation of - 0.1703 and - 0.1499. This reflects that whenever the LQR and SIZE is increasing, the ROA of the Local Islamic banks tends to decrease.

Table 4.5

Correlation Matrix for Foreign Islamic Banks in Malaysia

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
ROA	1						
GDP	0.0361	1					
INF	-0.1883	-0.0660	1				
CAR	-0.2678	0.0911	-0.0681	1			
ASQ	-0.5609	0.0184	-0.0026	0.5462	1		
LQR	0.1170	-0.1526	0.0020	-0.0527	-0.0804	1	
SIZE	-0.2727	-0.0638	0.0241	0.6535	0.0521	-0.1657	1

Table 4.5 shows the correlation analysis for independent and dependent variables for the Foreign Islamic banks in Malaysia. For the GDP, there is positively correlated with the ROA as the coefficient of correlation is 0.0361. This positive correlation indicates that when the GDP increases, the ROA also will increases. Besides, the INF shows negatively correlated with the ROA as it coefficient correlation is -0.1883. This indicates that when inflation increases, the ROA will decrease.

Besides, CAR and ASQ was negatively correlated toward the ROA with the coefficient correlation of -0.2678 and -0.5609. This reflects that ROA may decrease whenever the CAR and ASQ is increasing. For the LQR, there is positive correlation between the ROA and LQR which is 0.1170 which means the increase in LQR may also result the increase on the ROA. Finally, SIZE and ROA show the negative correlation with the correlation of -0.2727. This reflects that whenever the SIZE is increasing, the ROA of the Foreign Islamic banks tends to decrease.

As overall, all the correlation between the variables is below 0.9 and this implies there is no multicollinearity found among the independent variables. This is according to Green et al. (1988) which declared that the threshold of the risky impact of collinearity is 0.9. The statement was supported by Rosen D. H (1999) as cited in Bagheri and Midi (2009) which mentioned that multicollinearity will exist if the correlation coefficient more than 0.9.

4.3 Multiple Regression Analysis

4.3.1 Local Islamic Banks in Malaysia

The multiple regression analysis was performed using EVIEWS 9 software in order to determine the relationship between the independent variables (GDP, INF, CAR, ASQ, LQR, and SIZE) and dependent variable (ROA). The result for Local Islamic banks multiple regression analysis was presented in Table 4.6 below meanwhile for Foreign Islamic banks in Malaysia as showed in Table 4.7 respectively. The beta coefficient value (β) indicates the contribution of each independent variable to the dependent variable.

Table 4.6

External and Internal Determinants on Return on Asset (ROA) of Local Islamic Banks in Malaysia.

Variable	Expected sign	Beta Coefficient	t-statistics	p-value
GDP	+	1.0777	2.541	0.0139**
INF		-0.3572	-2.654	0.0104**
CAR	+	0.1227	2.480	0.0163**
ASQ		-0.0318	-1.496	0.1404
LQR	+	-0.0019	-0.403	0.6881
SIZE	+	-0.5212	-1.270	0.2096

R² 0.8543

Adjusted R² 0.8138

F-Statistics 21.1077

Sig F-Statistics 0.0000

N 70

Note: *p<0.10, **p<0.05, ***p<0.01

The result of the multiple regressions for Local Islamic banks in Malaysia is presented in Table 4.6. The F-statistic exhibits that overall significance of the model is found to be significant at 0.000 levels with adjusted R-squared of 0.8138. It shows that regression model consisting of GDP, INF, CAR, ASQ, LQR, and SIZE could explain 81.38 percent changes in ROA. Further, the predictors from external variables, such as, gross domestic product (GDP) and inflation (INF) are found to be significant meanwhile only one predictor from internal variables is found to be significant which is capital adequacy ratio (CAR). Other internal variables predictors namely liquidity

ratio (LQR), asset quality (ASQ) and bank size (SIZE) have not contributed to the return on asset (ROA) of Local Islamic bank in Malaysia yet, it is not supporting the hypotheses. Detail of the result is presented in Appendix IV.

4.3.1.1 External Determinants for Local Islamic banks in Malaysia

The results of external determinants are discussed in the following sections.

(i) Gross Domestic Products (GDP)

The coefficient estimation of GDP is 1.0777 with t-value of 2.541 and significant at level 0.05. This result implied that 1 percent increase in ROA of Local Islamic banks in Malaysia will increase 1.0777 percent in GDP. The result also shows that there is a positive and significant relationship between GDP and ROA, which suggest that the stable economic condition will influence the ROA to be higher. Thus, the null hypothesis H_{01} is rejected.

(ii) Inflation (INF)

The coefficient estimation of INF is -0.357 with t-value of -2.654 and significant at level 0.05. This result implied that a 0.357 point decrease in INF will result in 1 point increase in return on asset (ROA) of Local Islamic banks in Malaysia. The result indicates that there is a negative and significant relationship between INF and ROA which suggests that ROA of Local Islamic banks in Malaysia tend to be higher during low inflation rate. Since the INF is significant, thus, the result rejects null hypothesis H_{02} .

4.3.1.2 Internal Determinants for Local Islamic banks in Malaysia

An internal determinant is the second group of independent variables that consists of four variables and four hypotheses. The results of these variables are discussed in the following paragraphs.

(i) Capital Adequacy Ratio (CAR)

The coefficient estimation of CAR is 0.1223 with t-value of 2.480 and significant at level 0.05. This result implied that a 0.1223 point increase in CAR will result to the 1 point increase in ROA of Local Islamic banks in Malaysia. The result shows that there is a positive and significant relationship between CAR and ROA, which suggest that when the capital ratio is increase, the ROA of Local Islamic Bank also tend to be higher. Thus, null hypothesis H_{03} is rejected.

(ii) Asset Quality Ratio (ASQ)

The coefficient estimation of ASQ is -0.0318 with t-value of -1.496 This result implied that a 0.0318 point decrease in ASQ will result in an increase of 1 point in ROA of Local Islamic bank in Malaysia. Although the result is not significant, it shows that there is a negative relationship between ASQ and ROA. The result fails to reject the null hypothesis H_{04} .

(iii) Liquidity Ratio (LQR)

The coefficient estimation of LQR is -0.0019 with t-value of -0.403. This result implied that a 0.0019 point decrease in LQR will result in an increase of 1 point in ROA of Local Islamic bank in Malaysia. Although the result is not significant, it shows that there is a negative relationship between LQR and ROA which reveals that there

are higher ROA in a less liquid situation. Thus, the result fails to reject the null hypothesis H_{05} .

(iv) **Bank Size (SIZE)**

The coefficient estimation of SIZE is -0.521 with t-value of -1.270. This result implied that a 0.521 point decrease in SIZE will result in an increase of 1 point in ROA of Local Islamic bank in Malaysia. Although the result is not significant, it shows that there is a negative relationship between SIZE and ROA which reveals the larger size of the bank will not necessarily increase their profitability as the banks might not achieve the economies of scale. Thus, the result fails to reject the null hypothesis H_{06} .

4.3.1.3 The Summary of the Result of the Relationship between Independent Variables and Return on Asset of Local Islamic Banks in Malaysia

The table 4.7 below summarize the results regarding the hypotheses related to external variables and internal variables towards the return on asset (ROA) of Local Islamic banks in Malaysia. From the table, it can be concluded that the given hypotheses H_1 , H_2 , and H_3 are significant which consist of two (2) external variables and one (1) internal variable that significantly impact the ROA of Local Islamic banks in Malaysia. The summary of Multiple Regression results of external and internal determinants on ROA for Local Islamic Banks in Malaysia can be presented in Table 4.7 below.

Table 4.7

Summary of Multiple Regression Result of External and Internal Determinants on Return on Asset (ROA) for Local Islamic Banks in Malaysia

Independent Variables	Expected Sign	ROA
GDP	+	Significant(+)
INF	-	Significant (-)

CAR + Significant(+)

ASQ - Insignificant (-)

LQR + Insignificant(-)

SIZE + Insignificant(-)



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4.3.2 Foreign Islamic Banks in Malaysia

Table 4.8

External and Internal Determinants on Return on Asset (ROA) of Foreign Islamic Banks in Malaysia

Variable	Expected sign	Coefficient	t-statistics	p-value
GDP	+	-1.2259	-1.5179	0.1395
INF		-0.5207	-2.2853	0.0295**
CAR	+	0.2739	10.067	0.0000***
ASQ		-0.1761	-2.1109	0.0432**
LQR	+	-0.0028	1.4564	0.1557
SIZE	+	-1.1319	-6.4530	0.0000***

R ²	0.8587
Adjusted R ²	0.8068
F-Statistics	16.5740
Sig F-Statistics	0.0000
N	42

Note: *p<0.10, **p<0.05, ***p<0.01

Table 4.8 shows the result of the multiple regressions for Foreign Islamic Banks in Malaysia. The F-statistic exhibits that the overall significance of the model is found to be significant at 0.000 levels with adjusted R square of 0.8068. It shows that regression model consisting of GDP, INF, CAR, ASQ, LQR, and SIZE could explain 80.68 percent changes in ROA. Further, one (1) determinants from external variables which is inflation (INF) is found to be significant meanwhile three (3) determinants from internal variables are found to be significant which is capital adequacy ratio (CAR),

The results of external determinants are discussed in the following sections.

asset quality (ASQ) and bank size (SIZE). Other independent variables namely gross domestic product (GDP) and liquidity ratio (LQR) tend to have no relationship with the return on asset (ROA) of Foreign Islamic bank in Malaysia. The detail of the result is presented in Appendix V.

4.3.2.1 External Determinants for Foreign Islamic banks in Malaysia

The results of external determinants are discussed in the following sections.

(i) Gross Domestic Products (GDP)

The coefficient estimation of GDP is -1.2259 with t-value of -1.5179. This result implied that a 1.2259 point decrease in GDP will result in an increase of 1 point in ROA of Foreign Islamic bank in Malaysia. As the result is insignificant, the negative relationship between GDP and ROA appears to suggest that in economic recession the ROA tend to be higher. Thus, the result fails to reject the null hypothesis H_{01} .

(ii) Inflation (INF)

The coefficient estimation of INF is -0.5207 with t-value of -2.285 and significant at level 0.05. This result implied that a 0.5207 point decrease in INF will result to the 1 point increase in ROA of Foreign Islamic banks in Malaysia. The result had implied that there is a negative and significant relationship between INF and ROA which suggests that during low inflation rate, the ROA of Foreign Islamic banks in Malaysia tend to be higher. Since INF is significant, yet the null hypothesis H_{02} is rejected.

4.3.2.2 Internal Determinants for Foreign Islamic banks in Malaysia

An internal determinant is the second group of independent variables that consists of four variables and four hypotheses. The results of these variables are discussed below.

(i) Capital Adequacy Ratio (CAR)

The coefficient estimation of CAR is 0.274 with t-value of 10.067 and significant at level 0.01. This result implied that 0.274 point increase in CAR will result to the 1 point increase in ROA of Foreign Islamic banks in Malaysia. The result shows that there is a positive and significant relationship between CAR and ROA which tells that the higher capital ratio will cause the better ROA of Foreign Islamic banks. Thus, null hypothesis H_{03} is rejected.

(ii) Asset Quality Ratio (ASQ)

The coefficient estimation of ASQ is -0.0176 with t-value of -2.111 and significant at level 0.05. This result implied that a 0.0176 point decrease in ASQ will result in an increase of 1 point in ROA of Foreign Islamic bank in Malaysia. The result also showed that there is a negative and significant relationship between ASQ and ROA which illustrate the lower impaired financing (loan) will enhance the profitability of Foreign Islamic banks through the increase in the ROA. Yet, the null hypothesis H_{04} is rejected.

(iii) Liquidity Ratio (LQR)

The coefficient estimation of LQR is 0.0028 with t-value of 1.4564. This result implied that a 0.0028 point increase in LQR will result in an increase of 1 point in ROA of Foreign Islamic bank in Malaysia. Although the result is not significant, it shows that

there is a negative relationship between LQR and ROA which suggest that there are higher ROA in a less liquid situation. Since the LQR is insignificant, the result fails to reject the null hypothesis H_{05} .

(iv) **Bank Size (SIZE)**

The coefficient estimation of SIZE is -1.1319 with t-value of -6.4530 and significant at level 0.01. It implied that a 1.1319 point decrease in SIZE will result in an increase of 1 point in ROA of Foreign Islamic bank in Malaysia. The result also showed that there is a negative and significant relationship between SIZE and ROA which implied the smaller the banks, the higher the ROA due to the banks could enjoy economies of scale. Thus, the null hypothesis H_{06} is rejected.

4.3.2.3 The Summary of the Result of the Relationship between Independent Variables and Return On Asset of Foreign Islamic Banks in Malaysia

The table 4.9 below summarize the results regarding the hypotheses related to external variables and internal variables towards the return on asset (ROA) of Local Islamic banks in Malaysia. From the table, it can be concluded that the given hypotheses H_2 , H_3 , H_4 , and H_6 are significant which consist of one(1) external variable and three (3) internal variable that significantly impacts the ROA of Foreign Islamic banks in Malaysia. The summary of multiple regression results of external and internal determinants on ROA for Foreign Islamic Banks in Malaysia can be presented in Table 4.9 below.

Table 4.9

Summary of Multiple Regression Result of External and Internal Determinants on Return on Asset (ROA) for Foreign Islamic Banks in Malaysia.

Independent Variables	Expected Sign	ROA
GDP	+	Insignificant(-)
INF	-	Significant(-)

CAR + Significant(+)

ASQ - Significant(-)

LQR + Insignificant(-)

SIZE + Significant(-)

4.4 Discussion on the Results

The comparative analysis between Local and Foreign Islamic banks in Malaysia and the summary of the results obtained from the multiple regressions of Local and Foreign Islamic banks in Malaysia are presented in Table 4.10 and Table 4.11 below.

Based on Table 4.10, the independent variables have a slightly greater contribution on return on asset (ROA) of Foreign Islamic Banks in Malaysia ($R^2=0.8587$) compared to those in Local Islamic Banks in Malaysia ($R^2=0.8543$). In other words, the Foreign Islamic banks management in Malaysia is encouraged to consider the impacts of these variables since they contribute 85.87 percent of their bank's ROA, particularly in INF, CAR, ASQ, and SIZE.

Table 4.10

Summary Result of External and Internal Determinants on Return on Assets (ROA) of Local and Foreign Islamic Banks in Malaysia

As contrast, the independent variables contributed relatively 85.43 percent on the return on asset (ROA) of Local Islamic banks in Malaysia. Among the six variable GDP, INF, CAR, ASQ, LQR, and SIZE, only three had an impact on the ROA of Local Islamic banks in Malaysia namely GDP, INF and CAR.

Table 4.10

Summary Result of External and Internal Determinants on Return on Assets (ROA) of Local and Foreign Islamic Banks in Malaysia

Variable	Local Islamic Banks		Foreign Islamic Banks	
		p-value		p-value
GDP	1.0777	0.0139**	-1.2259	0.1395
INF	-0.3572	0.0104**	-0.5207	0.0295**
CAR	0.1227	0.0163**	0.2739	0.0000***
ASQ	-0.0318	0.1404	-0.1761	0.0432**
LQR	-0.0019	0.6881	-0.0028	0.1557
SIZE	-0.5212	0.2096	-1.1319	0.0000***
R ²		0.8543		0.8587
Adjusted R ²		0.8138		0.8068
F-Statistics		21.1077		16.5740
Sig F-Statistics		0.0000		0.0000
N		70		42

Note: *p<0.10, **p<0.05, ***p<0.01

Table 4.11

Summary of Results Based on Hypotheses.

Independent Variables	Hypothesized Relationship	Local Islamic Banks in Malaysia	Foreign Islamic Banks in Malaysia
GDP	+	Significant(+)	Insignificant(-)
INF	-	Significant(-)	Significant(-)
CAR	+	Significant(+)	Significant(+)
ASQ	-	Insignificant (-)	Significant(-)
LQR	+	Insignificant(-)	Insignificant(-)
SIZE	+	Insignificant (-)	Significant(-)

INF - Significant(-)

CAR + Significant(+)

ASQ - Insignificant (-)

LQR + Insignificant(-)

SIZE + Insignificant (-)

4.5 Relationship between External Determinants and Return on Asset

(ROA) in Local and Foreign Islamic Banks in Malaysia.

4.5.1 Gross Domestic Product (GDP)

Based on the result, there is a positive and significant relationship between GDP and ROA of Local Islamic banks in Malaysia at a significant level of 5 percent. This result is persistent with the finding of the study by Amzal (2016) in Indonesia which concluded that ROA and GDP have positive and significant. The Local Islamic bank's result also supports Wasiuzzaman and Tarmizi (2010) findings. The results clearly proposed that it is important for Local Islamic banks in Malaysia to inspect the future

GDP growth so that the banks could be ready to develop better strategies in ensuring their sustainability in the banking industry.

However, the insignificant relationship between GDP and ROA had been found in the case of Foreign Islamic banks in Malaysia implied that the GDP does not contribute to the ROA of Foreign Islamic banks in Malaysia. This result contradicted with the study by Ashraf et al. (2017); Sahari and Ubaidillah (2017); and Aslam et al. (2016).

4.5.2 Inflation (INF)

Inflation shows a negative impact on ROA for both Local and Foreign Islamic banks in Malaysia which significant at 5 percent. The result for both Islamic banks in this study proves the former findings of Kok et al. (2012) and Chua (2013) which examined the inflation impact on the ROA of commercial banks. The negative influence of inflation on ROA of Local and Foreign Islamic banks suggest that in the high inflation condition, the profitability of the Islamic banks will be decreased due to that the customers would spend their wealth more than saving it. Thus, when the customers spend more on their wealth, the depositor's savings account in the banks would decrease yet decrease the profitability of the banks.

4.6 Relationship between Internal Determinants and Return on Asset (ROA) in Local and Foreign Islamic Banks in Malaysia.

Based on the analysis of six internal determinants as shown in the Table 4.10 above, three are significant to the return on Asset (ROA) of Local Islamic Banks in Malaysia meanwhile four (4) out of six internal determinants are significant to the ROA of Foreign Islamic banks. The elaboration will be explained below.

4.6.1 Capital Adequacy Ratio (CAR)

There is a positive and significant relationship between CAR and ROA for both Local and Foreign Islamic banks in Malaysia. The Local Islamic banks are significant at 5 percent level while the Foreign Islamic Banks significant at 1 percent level. The result had revealed that increase in capital ratio will encourage the increasing of the ROA for both Islamic banks in Malaysia. The result is consistent with the study done by Wahidudin et al. (2017), Siddique et al. (2016) and Almazari (2014) which resolved that capital ratio impacts the bank's profitability positively. The higher capital ratio proposed that the banks are well-capitalized and likely to the enjoy economy of scale that would contribute to their profitability.

4.6.2 Asset Quality (ASQ)

Local Islamic Banks in Malaysia had reported the negative and insignificant relationship between ASQ and ROA. The negative relationship implied that lower asset quality would lead to the higher ROA in the banks. As the result is insignificant, it had been contradicted with the findings by Adeolu (2014) in his study of Nigeria commercial banks and Adnan (2012) which conducted the study in Jordan commercial banks.

Meanwhile, for the Foreign Islamic Banks in Malaysia, the result shows that there is a negative and significant relationship between ASQ and ROA of the banks at the significant level of 5 percent. This result is persistent with the study conducted by Naeem et al. (2017) and Wasiuzzaman and Tarmizi (2010) Pakistan and Malaysia. The study implied high impaired financing (loan) could lower the asset quality of Foreign

Islamic banks as the banks would experience with high credit risk yet, decrease its profitability.

4.6.3 Liquidity Ratio (LQR)

On the liquidity sides, the LQR of both Local and Foreign Islamic Banks in Malaysia showed the negative and insignificant relationship. The insignificant result for both Islamic banks in Malaysia implied that the LQR does not contribute to the ROA of either Local or Foreign Islamic banks in Malaysia. It means that LQR is not the determinant that could interpret the changing on the profitability of Islamic banks in Malaysia. This finding had contradicted with Dabiri et al. (2017); Ahmad (2016); Khan and Ali (2016); Dahiyat (2016); Shafana (2015); Husain et al. (2015); Rahman et al. (2013); and Wasiuzzaman and Tarmizi (2010)

4.6.4 Bank Size (SIZE)

There is a negative relationship between SIZE and ROA of Local Islamic banks in Malaysia but it is not significant. The negative result indicated that small size of bank tends to increase the ROA of Local Islamic banks in Malaysia. However, the insignificant result indicated that bank size is not the important determinant in assessing the profitability of Local Islamic banks in Malaysia. The result contravened with the study done by Pervan et al. (2015), Moussawi and Obeid (2011); and Idris et al. (2011).

For Foreign Islamic Banks in Malaysia, there is a negative and significant relationship between SIZE and ROA at a significant level of 1 percent which indicates that size of Foreign Islamic Banks had negatively affect the ROA of the banks. They negative

relationship between bank SIZE and ROA implied that Foreign Islamic banks in Malaysia may be suffered from diseconomies of scale due to unmanageable increasing of bank size as well as high risk involve that could impact the profitability of their banks. The result is persistent with the result done by Mohd Aziz (2017); Rahaman and Akhter (2015) and Ani et al. (2013).

4.7 Summary

This chapter discusses the results of three main techniques used in data analyse which are descriptive statistics, correlation analysis, and multiple regression analysis. Descriptive statistics summarize the value of the variables including means and standard deviation from 2010 until 2016. The correlation analysis indicated the association between the dependent variables which is ROA and independent variables namely GDP, INF, CAR, ASQ, LQR, and SIZE. Multiple regression analysis yet discussed on the impacts of the independent variable toward the dependent variables. The findings will be discussed on the next which is conclusion and recommendation.

Chapter Five

Conclusion and Recommendation

5.0 Conclusion

This study examines and analyses the relationship between external and internal determinants with the profitability of Local Islamic banks and Foreign Islamic banks in Malaysia. The impetus to study the profitability determinants comes from the ambiguous evidence on the relationship between external and internal determinants with the profitability of Local and Foreign Islamic banks in Malaysia. The relationship of the profitability determinants between Local and Foreign Islamic banks has been analysed in this study. The results allow the comparative evaluation to be done on the determinants of profitability between Local and Foreign Islamic bank in Malaysia. The next section presents the summary of the findings.

5.1 Summary of the Findings

To summarize, the findings are exhibited based on the sequence of the three research objectives as follows:

5.1.1 Objective 1

The first objective of this study is to identify the external determinants (GDP and inflation) influence on profitability of Local and Foreign Islamic banks in Malaysia.

The result had been presented in Table 4.10 in the discussion and results section.

The coefficient estimation result of GDP is positively and significantly related to the profitability of Local Islamic banks but not in Foreign Islamic banks in Malaysia. This

result implied that GDP is a significant determinant and could influence the increasing of the profitability of Local Islamic banks in Malaysia. This showed that Local Islamic banks could benefit from good economic condition as during good economic conditions, the financing demands would be increased and could lead better solvency by the borrower yet increase the Local Islamic banks in Malaysia positively. Concurrently, there is negative associated but not significant relationship between GDP and profitability of Foreign Islamic banks in Malaysia. It could be understood that GDP does not influence the profitability of Foreign Islamic banks in Malaysia. The result for Local Islamic banks was equivalent to the study by Amzal (2016) and Wasiuzzaman and Tarmizi (2010). Meanwhile, the result for Foreign Islamic banks in Malaysia was contradicted with the study of Abduh and Idrees (2013) and Francis (2013).

On the side of inflation, both of Local and Foreign Islamic banks profitability in Malaysia was negative and significantly related. The result had implied that high inflation will impact both of Islamic banks by decreasing the profitability of Local as well as Foreign Islamic banks in Malaysia. The results were supported by Kok et al. (2013) and Chua (2012) on their study of Islamic banks profitability in Malaysia.

5.1.2 Objective 2

The second objective of this study is to identify internal determinants (CAR, ASQ, LQR, and SIZE) influence on the profitability of Local and Foreign Islamic banks in Malaysia. The result was also shown in the Table 4.10 in the discussion and results section.

The regression analysis result report that the coefficient estimation of capital adequacy ratio (CAR) is positively and significantly related to both Local and Foreign Islamic bank's profitability in Malaysia. This result indicates that the Local and Foreign Islamic banks in Malaysia have higher capitalization that could enhance the profit of the banks as well as enjoy the economy scales that could contribute to their bank's performance.

Conversely, the relationship between asset quality ratio (ASQ) and profitability of Local Islamic banks in Malaysia is negatively associated, but not significant. The result shown that liquidity can be obtained by dividing the impaired loan over gross loan is not a significant determinant of profitability for Local Islamic banks in Malaysia. Meanwhile, the ASQ for Foreign Islamic banks in Malaysia had showed the negative and significant impact on the profitability. The result explained the increase of the impaired financing (loan) had lower the asset quality yet, decrease the profitability of Foreign Islamic banks in Malaysia. Thus, it is essential for the Foreign Islamic banks in Malaysia to control and monitor their financing in ensuring their performance.

For liquidity ratio (LQR), the coefficient estimation is negatively related to the profitability, but not significant for both Local and Foreign Islamic banks in Malaysia respectively. Both insignificant and negative coefficient estimation seems to suggest that liquidity ratio does not contribute to the profitability determinants of Local and Foreign Islamic banks.

This study also found that the relationship between bank size (SIZE) and profitability of Local Islamic Banks in Malaysia is negatively associated, but not significant. This indicates that bank size did not contribute to the profitability of the Local Islamic banks in Malaysia. On the other hand, bank size of Foreign Islamic banks in Malaysia had shown the negatively and significantly related to the profitability. The result had exhibit that the larger bank size does not necessarily will increase the profitability of the Foreign Islamic banks as the larger bank could face various risk.

5.1.3 Objective 3

The third objective is to identify the main determinants that contributed to the profitability of Local and Foreign Islamic banks in Malaysia. The results presented in Table 4.10 had been used to determine the primary significant determinants that contribute to the Local and Foreign Islamic bank's profitability in Malaysia.

In the case of Local Islamic banks, GDP, INF, and CAR are the primary determinants that contribute to the profitability of Local Islamic banks in Malaysia meanwhile INF, CAR, ASQ and SIZE are the determinants that mainly contribute to the profitability of Foreign Islamic banks in Malaysia. These had indicated that the profitability determinants for Local Islamic banks in Malaysia might not be similar with those in Foreign Islamic banks as the significant determinant for Local Islamic banks might not be significant to the Foreign Islamic banks in Malaysia. However, the study had highlighted some determinants that important for both Local and Foreign Islamic banks in Malaysia namely INF and CAP which has significant contribution in determining the profitability of both Local and Foreign Islamic banks in Malaysia.

5.2 Contribution of the Study

Based on the findings, it implies that the profitability of Local and Foreign Islamic banks in Malaysia had negatively affected by the inflation (INF). Thus, both of Local and Foreign Islamic banks in Malaysia need to intensify and reinforce their risk management aspects in order to reduce the risk faced by the Islamic banks. This is due to high inflation may lead to the occurrence of financial crisis.

In the meantime, for regulatory sides, it is essential for the policy maker of Islamic banks in Malaysia to develop policies that could strengthen the Islamic banking industry in absorbing the financial shocks. The policies formulate also need to focus in improving the resilience of the Islamic banks in assuring the stability of Islamic banking industry.

5.3 Limitation of the Study

There are few limitations that need to take into consideration in this study. The limitations are explained as below:

- First, the sampling sizes of this study were substantially small as it had been divided into Local Islamic banks and Foreign Islamic banks in Malaysia. The sizes could give an impact to the variables as well as the result due to the definite number of observations.
- Second, the time limit used in this study also were substantially short which only cover for 7 years from 2010 until 2016. This is due to the unavailability of the data from the annual report of each bank. Thus, the Fitch Connect database was used in data collection.

As proportionate to this study, few recommendations to be considered for future research are proposed as below:

- Third, the variables used in this study were confined to the variables that usually been utilized by previous research in conducting the study on bank's profitability.

5.4 Recommendations for Future Research

As proportionate to this study, few recommendations to be considered for future research are proposed as below:

- First, as this study was conducted with the relatively small number of observation thus it is suggested for future research to include more time limit or number of variables in other to acquire larger sample size in analyse thus, more accurate results could be achieved in the research.
- Second, the future researcher could introduce new variables that rarely been used in study of bank profitability such as regulations, money supply or taxation so that there is an enrichment on the quality of research that could be produced.
- Third, the future researcher should use any new statistical software in the future as this study only conducted by using EVIEWS 9. Difference software would influence the credibility of the findings.

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APPENDICES

APPENDIX I

List of Local Islamic Banks in Malaysia

No.	Name	Ownership
1	Affin Islamic Bank Berhad	Local
2	Alliance Islamic Bank Berhad	Local
3	AmBank Islamic Berhad	Local
4	Bank Islam Malaysia Berhad	Local
5	Bank Muamalat Malaysia Berhad	Local
6	CIMB Islamic Bank Berhad	Local
7	Hong Leong Islamic Bank Berhad	Local
8	Maybank Islamic Berhad	Local
9	Public Islamic Bank Berhad	Local
10	RHB Islamic Bank Berhad	Local

Sources: Bank Negara Malaysia, 2017

List of Foreign Islamic Banks in Malaysia

No.	Name	Ownership
1	Al Rajhi Banking & Investment Corporation (Malaysia) Berhad	Foreign
2	Asian Finance Bank Berhad	Foreign
3	HSBC Amanah Malaysia Berhad	Foreign
4	Kuwait Finance House (Malaysia) Berhad	Foreign
5	OCBC Al-Amin Bank Berhad	Foreign
6	Standard Chartered Saadiq Berhad	Foreign

Sources: Bank Negara Malaysia, 2017

APPENDIX II

Data for Local Islamic Banks in Malaysia

Islamic Bank	Code	Year	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Affin	1	2010	1.816	0.844	0.233	5.736	4.190	47.04	6.878
Affin	1	2011	1.585	0.724	0.505	4.572	3.850	41.53	7.022
Affin	1	2012	1.740	0.738	0.217	5.591	2.490	43.87	7.069
Affin	1	2013	1.551	0.672	0.322	5.718	2.150	49.05	7.091
Affin	1	2014	1.660	0.779	0.502	6.073	1.790	56.30	7.105
Affin	1	2015	1.732	0.701	0.318	7.138	1.530	68.74	7.127
Affin	1	2016	1.826	0.625	0.328	7.575	0.810	77.94	7.184
Alliance	2	2010	3.828	0.844	0.233	8.531	1.330	69.53	6.689
Alliance	2	2011	2.773	0.724	0.505	7.519	1.510	63.92	6.794
Alliance	2	2012	3.095	0.738	0.217	8.406	1.560	68.25	6.813
Alliance	2	2013	2.685	0.672	0.322	8.682	1.870	67.61	6.834
Alliance	2	2014	2.255	0.779	0.502	8.471	1.520	67.67	6.869
Alliance	2	2015	1.905	0.701	0.318	7.146	0.730	71.14	6.964
Alliance	2	2016	1.739	0.625	0.328	8.302	1.540	71.39	6.991
AmBank	3	2010	3.695	0.844	0.233	7.774	1.520	68.31	7.236
AmBank	3	2011	2.592	0.724	0.505	6.922	2.330	65.61	7.305
AmBank	3	2012	2.748	0.738	0.217	7.187	1.250	77.43	7.378
AmBank	3	2013	2.300	0.672	0.322	6.543	1.190	67.64	7.512
AmBank	3	2014	2.073	0.779	0.502	6.679	1.390	69.42	7.547
AmBank	3	2015	1.895	0.701	0.318	6.076	2.160	69.24	7.599
AmBank	3	2016	2.242	0.625	0.328	6.921	2.180	71.51	7.583
BIMB	4	2010	4.425	0.844	0.233	8.322	4.500	39.05	7.482
BIMB	4	2011	3.340	0.724	0.505	8.649	2.610	43.90	7.508
BIMB	4	2012	3.434	0.738	0.217	8.276	1.550	52.09	7.573
BIMB	4	2013	3.384	0.672	0.322	7.772	1.180	55.42	7.632
BIMB	4	2014	3.281	0.779	0.502	8.140	1.950	64.42	7.661
BIMB	4	2015	3.040	0.701	0.318	8.104	1.090	68.91	7.697
BIMB	4	2016	2.944	0.625	0.328	7.877	0.980	70.37	7.746
BMMB	5	2010	2.617	0.844	0.233	7.885	7.300	39.65	7.223
BMMB	5	2011	2.683	0.724	0.505	7.434	5.040	39.13	7.263
BMMB	5	2012	2.326	0.738	0.217	6.979	4.700	44.20	7.311
BMMB	5	2013	2.810	0.672	0.322	7.574	2.500	49.17	7.324
BMMB	5	2014	3.020	0.779	0.502	8.678	2.500	59.30	7.302
BMMB	5	2015	2.270	0.701	0.318	8.218	2.480	59.80	7.351
BMMB	5	2016	2.345	0.625	0.328	8.781	2.210	64.11	7.355
CIMB	6	2010	1.757	0.844	0.233	3.715	1.480	62.22	7.557
CIMB	6	2011	1.786	0.724	0.505	4.475	1.210	65.14	7.634
CIMB	6	2012	1.968	0.738	0.217	4.575	0.910	64.56	7.709
CIMB	6	2013	2.018	0.672	0.322	5.404	0.870	70.96	7.694
CIMB	6	2014	2.033	0.779	0.502	6.440	1.250	72.79	7.698
CIMB	6	2015	1.927	0.701	0.318	6.609	1.040	73.91	7.737

CIMB	6	2016	1.812	0.625	0.328	6.227	0.980	70.78	7.824
Hong Leong	7	2010	1.849	0.844	0.233	8.219	0.860	41.54	6.998
Hong Leong	7	2011	1.368	0.724	0.505	7.108	0.730	44.15	7.086
Hong Leong	7	2012	1.555	0.738	0.217	5.414	4.700	54.84	7.340
Hong Leong	7	2013	2.250	0.672	0.322	6.226	2.500	61.44	7.337
Hong Leong	7	2014	2.211	0.779	0.502	7.067	2.680	65.66	7.338
Hong Leong	7	2015	1.861	0.701	0.318	7.085	2.480	68.65	7.367
Hong Leong	7	2016	1.785	0.625	0.328	7.080	2.210	72.17	7.409
Maybank	8	2010	2.178	0.844	0.233	7.467	2.690	75.66	7.645
Maybank	8	2011	1.845	0.724	0.505	5.445	1.550	60.71	7.878
Maybank	8	2012	2.058	0.738	0.217	4.971	0.840	67.05	7.961
Maybank	8	2013	1.847	0.672	0.322	5.146	0.330	68.87	8.097
Maybank	8	2014	1.784	0.779	0.502	4.938	0.620	73.58	8.166
Maybank	8	2015	1.846	0.701	0.318	5.287	0.670	83.25	8.194
Maybank	8	2016	1.726	0.625	0.328	4.999	0.990	81.69	8.260
Public	9	2010	2.987	0.844	0.233	7.673	0.980	69.05	7.374
Public	9	2011	2.683	0.724	0.505	7.189	0.890	65.29	7.469
Public	9	2012	2.710	0.738	0.217	7.807	0.860	68.83	7.467
Public	9	2013	2.136	0.672	0.322	7.517	0.900	66.44	7.537
Public	9	2014	1.942	0.779	0.502	6.950	0.900	66.66	7.582
Public	9	2015	1.664	0.701	0.318	6.491	0.660	69.51	7.660
Public	9	2016	1.802	0.625	0.328	7.219	0.600	74.97	7.696
RHB	10	2010	1.800	0.844	0.233	7.510	6.950	66.45	7.118
RHB	10	2011	1.297	0.724	0.505	5.884	4.290	56.18	7.355
RHB	10	2012	1.558	0.738	0.217	6.613	2.510	62.48	7.408
RHB	10	2013	1.533	0.672	0.322	6.959	2.310	63.28	7.464
RHB	10	2014	1.470	0.779	0.502	6.237	1.300	69.96	7.558
RHB	10	2015	1.309	0.701	0.318	5.664	1.170	70.08	7.644
RHB	10	2016	1.421	0.625	0.328	6.086	1.150	70.33	7.682
Data for Foreign Islamic Banks in Malaysia									
Islamic Banks	Code	Year	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Al-Rajhi	1	2010	2.22	0.844	0.233	12.26	2.15	68.43	6.772
Al-Rajhi	1	2011	2.52	0.724	0.505	12.30	1.66	60.40	6.789
Al-Rajhi	1	2012	2.45	0.738	0.217	10.38	1.99	62.49	6.837
Al-Rajhi	1	2013	2.47	0.672	0.322	10.60	1.57	70.84	6.830
Al-Rajhi	1	2014	2.29	0.779	0.502	9.91	1.26	65.67	6.862
Al-Rajhi	1	2015	2.48	0.701	0.318	10.01	1.51	68.12	6.864
Al-Rajhi	1	2016	2.17	0.625	0.328	8.80	1.24	71.45	6.924
Asian Finance	2	2010	0.79	0.844	0.233	17.15	6.91	32.16	9.351
Asian Finance	2	2011	1.76	0.724	0.505	19.55	5.17	38.41	9.387
Asian Finance	2	2012	1.19	0.738	0.217	16.78	3.81	52.68	9.449
Asian Finance	2	2013	1.41	0.672	0.322	16.40	2.14	56.79	9.463

Asian Finance	2	2014	1.56	0.779	0.502	17.23	0.74	60.73	9.457
Asian Finance	2	2015	1.40	0.701	0.318	19.48	0.87	57.66	9.403
Asian Finance	2	2016	1.38	0.625	0.328	20.25	8.29	59.32	9.390
HSBC	3	2010	3.30	0.844	0.233	11.62	1.49	68.65	6.830
HSBC	3	2011	2.79	0.724	0.505	8.63	1.59	74.55	7.019
HSBC	3	2012	3.07	0.738	0.217	8.56	1.49	69.85	7.084
HSBC	3	2013	2.75	0.672	0.322	8.08	1.79	63.00	7.163
HSBC	3	2014	2.56	0.779	0.502	8.05	1.5	64.14	7.214
HSBC	3	2015	1.98	0.701	0.318	7.51	1.93	61.92	7.286
HSBC	3	2016	2.05	0.625	0.328	9.33	2.53	72.04	7.212
KFH	4	2010	0.28	0.844	0.233	18.56	12.02	55.75	7.037
KFH	4	2011	-4.33	0.724	0.505	14.22	23.23	51.33	7.005
KFH	4	2012	3.40	0.738	0.217	16.80	15.63	58.95	6.953
KFH	4	2013	3.98	0.672	0.322	16.77	10.6	63.96	6.973
KFH	4	2014	3.28	0.779	0.502	16.21	7.4	64.53	7.017
KFH	4	2015	1.13	0.701	0.318	15.44	7.43	65.87	7.027
KFH	4	2016	1.36	0.625	0.328	14.96	6.97	60.11	7.034
OCBC	5	2010	2.85	0.844	0.233	6.84	1.78	57.76	6.634
OCBC	5	2011	2.46	0.724	0.505	5.79	1.46	0.24	6.758
OCBC	5	2012	2.64	0.738	0.217	6.78	1.26	0.08	6.843
OCBC	5	2013	2.70	0.672	0.322	5.88	1.56	66.79	7.005
OCBC	5	2014	1.97	0.779	0.502	5.77	2.1	67.07	7.136
OCBC	5	2015	2.52	0.701	0.318	6.75	2.81	67.67	7.165
OCBC	5	2016	2.53	0.625	0.328	7.41	3.01	63.07	7.183
SC	6	2010	3.43	0.844	0.233	10.86	0.94	57.52	6.610
SC	6	2011	2.44	0.724	0.505	7.84	0.63	48.00	6.775
SC	6	2012	2.37	0.738	0.217	7.42	0.84	53.71	6.865
SC	6	2013	2.00	0.672	0.322	6.70	0.67	61.52	6.914
SC	6	2014	1.45	0.779	0.502	5.78	0.53	73.24	6.986
SC	6	2015	1.38	0.701	0.318	5.09	0.54	59.41	7.054
SC	6	2016	1.79	0.625	0.328	6.61	0.85	71.99	6.962

APPENDIX III

Results of Descriptive Analysis for Local Islamic Banks in Malaysia

Date: 03/27/18 Time: 10:40

Sample: 2010-2016

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Mean	2.220424	0.726105	0.346385	6.856415	1.950571	63.45807	7.428029
Median	1.993144	0.723784	0.321598	7.073246	1.520000	66.85914	7.436467
Maximum	4.424920	0.843918	0.505150	8.780532	7.300000	83.25187	8.259581
Minimum	1.296615	0.625210	0.216694	3.714558	0.330000	39.05637	6.688578
Std. Dev.	0.664013	0.066552	0.108150	1.215834	1.414365	10.80921	0.340030
Skewness	1.055545	0.286801	0.468414	-0.430242	1.863716	-0.856813	0.097155
Kurtosis	3.702229	2.347068	1.789574	2.406592	6.628335	2.915749	2.940740
Jarque-Bera	14.43689	2.107726	6.823110	3.486652	78.62082	8.585544	0.120366
Probability	0.000733	0.333250	0.032825	0.203248	0.000000	0.013667	0.941592
Sum	155.4297	50.82733	24.24697	479.9491	136.5400	4442.065	519.9620
Sum Sq. Dev.	30.42298	0.305614	0.807060	101.9995	138.0296	8061.899	7.977816
Observations	70	70	70	70	70	70	70

Results of Descriptive Analysis for Foreign Islamic Banks in Malaysia

Date: 03/27/18 Time: 10:28

Sample: 2010-2016

	ROA	GDP	INF	CAR	ASQ	LQR	SIZE
Mean	2.053291	0.726105	0.346385	11.22282	3.664048	58.75900	7.369527
Median	2.329079	0.723784	0.321598	9.962747	1.720000	62.20315	7.011001
Maximum	3.980700	0.843918	0.505150	20.24623	23.23000	74.55017	9.462868
Minimum	-4.326682	0.625210	0.216694	5.088197	0.530000	0.080353	6.609763
Std. Dev.	1.268091	0.066876	0.108677	4.656791	4.620292	15.80186	0.937592
Skewness	-3.038612	0.286001	0.468414	0.485061	2.504375	-2.559127	1.688547
Kurtosis	16.42370	2.347068	1.789574	1.821939	9.669297	9.840882	4.028195
Jarque-Bera	379.9748	1.318635	4.099866	4.075685	121.7424	127.7398	21.80842
Probability	0.000000	0.517204	0.128744	0.130310	0.000000	0.000000	0.000018
Sum	86.23821	30.49640	14.54818	471.3585	153.8900	2467.878	309.5201
Sum Sq. Dev.	65.93028	0.183368	0.484236	889.1139	875.2310	10237.65	36.04225
Observations	42	42	42	42	42	42	42

APPENDIX IV

Result of the Multiple Regression for Local Islamic Banks in Malaysia

Dependent Variable: ROA

Method: Panel EGLS (Cross-section weights)

Date: 03/27/18 Time: 10:39

Sample: 2010 2016

Periods included: 7

Cross-sections included: 10

Total panel (balanced) observations: 70

Linear estimation after one-step weighting matrix

White cross-section standard errors & covariance (d.f. corrected)

WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.774710	3.383155	1.411319	0.1639
GDP	1.077749	0.424095	2.541290	0.0139
INF	-0.357238	0.134589	-2.654287	0.0104
CAR	0.122655	0.049454	2.480189	0.0163
ASQ	-0.031848	0.021283	-1.496439	0.1404
LQR	-0.001896	0.004698	-0.403533	0.6881
SIZE	-0.521224	0.410493	-1.269749	0.2096

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.854296	Mean dependent var	2.618284
Adjusted R-squared	0.813823	S.D. dependent var	0.848829
S.E. of regression	0.305817	Sum squared resid	5.050289
F-statistic	21.10770	Durbin-Watson stat	1.024459
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.786414	Mean dependent var	2.220424
Sum squared resid	6.497920	Durbin-Watson stat	0.848424

APPENDIX V

Result of the Multiple Regression for Foreign Islamic Banks in Malaysia

Dependent Variable: ROA

Method: Panel EGLS (Cross-section weights)

Date: 03/27/18 Time: 10:25

Sample: 2010 2016

Periods included: 7

Cross-sections included: 6

Total panel (balanced) observations: 42

Linear estimation after one-step weighting matrix

White cross-section standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.870641	1.559244	5.689064	0.0000
GDP	-1.225908	0.807595	-1.517974	0.1395
INF	-0.520713	0.227848	-2.285357	0.0295
CAR	0.273943	0.027211	10.06740	0.0000
ASQ	-0.176101	0.083424	-2.110914	0.0432
LQR	0.002827	0.001941	1.456406	0.1557
SIZE	-1.131976	0.175418	-6.453025	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics

R-squared	0.858700	Mean dependent var	6.137473
Adjusted R-squared	0.806890	S.D. dependent var	4.509431
S.E. of regression	0.817590	Sum squared resid	20.05362
F-statistic	16.57405	Durbin-Watson stat	1.402942
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.582416	Mean dependent var	2.053291
Sum squared resid	27.53140	Durbin-Watson stat	1.684558