

DETERMINANTS OF PRICE OF FINANCING IN
ISLAMIC BANKING MALAYSIA

BY

CHANG CHEE YONG
CHIA WAN HOON
LEE XIN EE
NG KHAY XIONG
PUA HUI MIN

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DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree of qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing this research project.
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Name of Student:	Student ID:	Signature:
1. Chang Chee Yong	1301675	_____
2. Chia Wan Hoon	1301616	_____
3. Lee Xin Ee	1205084	_____
4. Ng Khay Xiong	1301642	_____
5. Pua Hui Min	1103048	_____

Date: 21st APRIL, 2016.

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LIST OF ABBREVIATIONS

ACE	Alternation Conditional Expectations
BFR	Base Financing Rate
BLR	Base Lending Rate
CLRM	Classical Linear Regression Model
FDR	Financing to Deposit Ratio
GCC	Gulf Cooperation Council
HLISB	Hong Leong Islamic Bank Berhad
HLB	Hong Leong Bank
IBS	Islamic Banking Scheme
INCEIF	International Centre for Education in Islamic Finance
LIQ	Liquidity Ratio
NIM	Net Income Margin
OPR	Overnight Policy Rate
PWSBH	Perbadanan Wang Simpanan Bakal-Bakal Haji
ROA	Return on Asset
ROE	Return on Equity
SPSS	Statistical Package for Social Science
TOL	Tolerance
VIF	Variance Inflation Factor

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PREFACE

This is a research project for final year project. This is also one of the major subjects for Bachelor of Business Administration (HONS) Banking and Finance. We have to complete this research within 28 weeks.

Our final year project's title is "Determinants of Price of financing in Islamic Banking Malaysia". The research topic discuss about the three full-fledged Islamic banks and the three non-full-fledged Islamic Banks in the Islamic banking sector of Malaysia.

Nowadays, Islamic banking had developed speedy and efficient all around the world, including in our country, Malaysia. Most of the people are planning to borrow money from Islamic banks rather than commercial banks. This is because people will make a comparison between Islamic banks and conventional banks. This mean that people are concerning about the financing price, in other word, the borrowing cost. Therefore, we determine which of the factors will influence the price of financing using by those banks within the Islamic Banking in Malaysia.

This research was carried on to find out the significance or the relationship between the factors and the price of financing of Islamic banking in Malaysia.

ABSTRACT

This research paper was carrying out to find out the determinants of financing price in full-fledged Islamic banks and non-full-fledged Islamic banks in Malaysia. Net Income Margin will represent the financing pricing of the Islamic banks. Besides that, the factors that will influence the Net Income Margin including the profitability, financing to deposit ratio, liquidity ratio and base financing rate. Three full-fledged Islamic banks and three non-full-fledged Islamic banks were involved in this research to make comparison. They are Al-Rajhi Bank, Bank Islam, and Bank Muamalat for full-fledged Islamic Banks, and CIMB Islamic Bank, Hong Leong Islamic Bank and RHB Islamic Bank for non-full-fledged Islamic Banks. The investigated period for the research is from year 2006 to 2015 and the annual data is being used in this research paper. In the major finding, we found that all independent variables are significant except the base financing rate in full-fledged Islamic Banks. On the other hand, the non-full-fledged Islamic banks have all insignificant independent variable except the profitability.

Key words: Financing pricing, full-fledged Islamic Banks, non-full-fledged Islamic banks, Malaysia.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Research Background

In Malaysia, banking sector can be divided into three, which are Commercial Banking, Islamic Banking and Investment Banks, which fall under the supervision of Bank Negara Malaysia. There are 27 commercial banks, 16 Islamic Banks and 11 Investment Banks in Malaysia currently. Under the Islamic Banking, it is separates into two which are full-fledge Islamic and non-full-fledged Islamic. Full-fledged Islamic bank is the independent banks that are only provide Islamic banking services. On the other hand, non-full-fledged bank is the subsidiary bank establish from commercial banks to provide Islamic banking services. In this study, we will focus on Islamic banking.

1.1 Background of Malaysia Islamic banking sector

Perbadanan Wang Simpanan Bakal-Bakal Haji (PWSBH) was established in September of 1963. (Chapter 4 Islamic Banking, n.d., p.73). At the same time, Islamic banking was started in Malaysia. PWSBH was actually an institution or platform for Muslims to save for their Haji expenses. The Haji is basically an annual Islamic pilgrimage to Mecca for Muslims. In 1969, Pejabat Urusan Haji was merged with PWSBH to form Lembaga Urusan and Tabung Haji which were also known as Lembaga Tabung Haji now.

The first Islamic bank in Malaysia was founded in 1983. During 1993, commercial banks, investment banks and some finance companies were permitted to offer Islamic product and services under the Islamic Banking Scheme (IBS). However, these institutions have to separate their funding and trading activities of Islamic banking with its conventional banking business to ensure that there will not be any mix of mutual funds.

Besides, the National Muslim Advisory Council also set up at Bank Negara Malaysia to recommend BNM on operations of these institution regarding to Shariah aspects included with products and services. Bank Negara Malaysia also provide skilled and certification of personnel in Islamic Finance by establishing International Centre for Education in Islamic Finance (INCEIF) in a dedicated University at year 2006. The established of university was the Malaysia Government's first step to further strengthen the position of the country as part of an international Islamic financial center. It is worth to mentioning that it was also the only university in world that was full dedication to post-graduate studies in Islamic Finance. (Abdullah, 2011). According to Bank Negara Malaysia (2009), there are 16 of Islamic banks in the whole Malaysia banking sector.

Price of financing is basically the differences between interest income generated by banks and the interest that pay out to their lenders. Such as, deposits. It is something like gross profit margin in non-financial company.

1.1.1 Background of Full-fledged Islamic Banks

Bank Islam is the first Islamic institution in Malaysia which is based on Shariah-based and it was established in the year of 1983. It has appeared as a sign of Islamic banking in Malaysia because of its commencement and with its vision which is "Global Leader in Islamic Banking" represents the Bank's position as the ideal guidance and source of reference of the country's financial services industry.

Bank Islam plays an important role in creating the growth of its property. Bank Islam has started on a development program with some participation, including significant transactions in Corporate Mandate and Sukuk across the year. Adhering to the spirit of a path-breaker, the Bank continues to provide new and improved products and services which have led to more and more customers see Islamic banking as a real alternative to conventional banking. Through an extensive network, Bank Islam currently have 142 branches and with more than 1200 self-service terminals in the nationwide. Compared to those that offered by conventional counterparts, Bank Islam shows a complete list of more than 70 new and advanced products and services of Islamic banking,

From traditional financing, savings and investment products only for individual customers in the early years of formation, a variety of Bank Islam finance products, services and business solutions which is Shariah-based has notably developed to meet the immediate changing of financial needs of customers from all categories involving those regarded to capital markets, micro-finance, wealth management, treasury and structured products. Bank Islam has also played a key role in advertising the development of Islamic finance of Malaysia's brand into other markets as a new type of bank in the industry. Advertising to other markets has helped expanded Bank Islam move to a distinct established and identified brands.

The Islamic Bank was granted the Reader's Digest Platinum Award for being the Most Trusted Brand continuously for five years in identification of its pioneering role. The title of "Best Islamic Bank (Malaysia) 2013" by The Banker has now included in the bank's privilege expanding list. Bank Islam stays on the right path to become a "Global Leader in Islamic Banking" and remains guided by the excellent pioneering work of his predecessor with all the entrusted beliefs. Becoming an international Islamic financial hub, success of its recovery efforts and the challenges from competitors is Malaysia's ambition.

Bank Muamalat Malaysia Berhad was established in year 1999. It is the second full-fledged and independent Islamic bank in Malaysia after Bank Islam Malaysia Berhad. Bank Muamalat issues the products and the services related to the Islamic Banking. The products that provided by Bank Muamalat comprises investment accounts, foreign currency deposits, foreign exchange trading, trade financing, working capital financing, project and contract financing. The services that provided by that bank included the venture capital service, and the capital market services.

When Bank Muamalat started its operation, it brought over the assets and liabilities from the Islamic banking windows of the Bank of Commerce, BBMB Kawangan, and Bank DRB-HICOM is the shareholder of Bank Muamalat. The 70% of shares owns by bank, while the remaining shares is holding by the Khazanah Nasional Berhad. Bank Muamalat Malaysia has some subsidiaries such as Muamalat Nominees (Asing), Muamalat Venture, Muamalat Nominees (Tempatan), and Muamalat Invest SDN BHD.

Apart from that, Bank Muamalat is a Shariah based bank that supported by the highly qualified and experience Shariah scholars, responsible to advise those who interested in raising Islamic capital issues and other products. It plays the role in contributing to the development of Malaysia into a modern country. Currently,

there are 58 branches of Bank Muamalat and an offshore Labuan branch (MIFC status).

Bank Muamalat Malaysia Berhad got several rewards along these years, the mission of the bank is to deliver best value to the stakeholders and their vision is to become the preferred financial services provider.

Based in Riyadh, Saudi Arabia, Al-Rajhi Bank was found in 1957 and has over 58 years of experience in banking and trading activities. It is one of the full-fledged Islamic Bank in Malaysia that was setting up its first overseas operations at Jalan Ampang on 16 October 2006.

Currently, Al-Rajhi Bank plays an integral part in the Kingdom of Saudi Arabia. It is one of the largest branches and it covers over 570 bank branches, 2750 ATM machines, and 21000 POS all over the Kingdom of Saudi Arabia. It reached a value of total assets of USD 80billion, paid up capital of USD 4.33billion, and also over 9600 employees.

Now it also has 24 branches nationwide in Malaysia. It is the first foreign bank that been awarded to become full-banking by Bank Negara Malaysia. The core banking services of Al-Rajhi Bank were introduced to Asian as the whole new Islamic Banking product experience.

1.1.2 Background of Non-full-fledged Islamic Banks

RHB Islamic Berhad is a non-full-fledged Islamic Bank belongs to the RHB Banking Group. RHB Banking Group became the first commercial banking group in Malaysia that licensed the Islamic bank. RHB Islamic bank was established on 16 March 2005. RHB Islamic offers the full suite Shariah-based banking financial solutions included savings and current accounts, wealth management services, pawn broking services, privilege ladies banking, private debt securities issuance, general and project advisory services, deposits products such as current account, term deposits, savings account, debit cards, debit cards and other else.

Apart from that, RHB Islamic involves in the securities trading activities that related to money market operation and the trading involving the international currency. RHB Islamic focuses on ensuring their customers to enjoy convenient and reliable banking experience. It leverages on the synergies, capabilities, and commitments within the RHB Banking Group network. RHB Islamic Bank hit the achievements such as London Sukuk Summit, which is the most innovative Islamic finance transaction, furthermore, it has an award of providing the most outstanding Islamic consumer financing products in year 2010.

In addition, RHB Islamic Bank Berhad serves public listed corporations, small and medium enterprises, multinational corporations, financial institutions, government and state owned entities and high net worth individuals. There are 200 branches in the network of RHB Islamic, and also 500 units of ATM's throughout the country.

On the other hand, CIMB Islamic Bank Berhad offers those shariah-compliant products and services that are innovative and comprehensive such as asset management, wealth management, consumer banking, investment banking,

private banking, and takaful. CIMB Islamic is the global Islamic banking and finance industry player that licensed under Islamic Banking Act 1983 in Malaysia. Under the guidance of CIMB Islamic Shariah committee, the products and operations are in strict compliance form. CIMB Islamic Shariah Committee hosts some international expertise jurisdictions that help in providing effective Shariah management. The Shariah Advisory practice a wide range services such as Shariah Advisory On Islamic treasury products, Shariah Advisory On Islamic consumer and investment banking products, Shariah Advisory On Islamic funds and asset management business, Shariah Advisory On Islamic venture capital and private equity activities, General Shariah Advisory, Shariah Advisory On issuance of Islamic securities. These had enhances the experience of CIMB Islamic Shariah Advisory teams.

CIMB Islamic achieved many awards that related to the asset management. It became the third biggest Islamic bank in Southeast Asia in terms of its total deposits and its total asset. There are 350 branches of CIMB Islamic in Malaysia together with the 250 branches in Indonesia. Thus, CIMB Islamic became the largest Islamic bank by network in Southeast Asia. Furthermore, it achieved the awards of the best Islamic finance bank in Malaysia and Southeast Asia. It also got the euromoney Islamic finance awards and became the best Islamic bank in Asia. Furthermore, it is the best Islamic trade bank in Asia.

There are much more achievements of CIMB Islamic. CIMB Islamic introduced some ground-breaking solutions such as The World's First Musharakah Sukuk, The World's First Istisna' Sukuk, The World's First Renminbi Sukuk, The World's First Fixed Rate Islamic Retail Deposit, and The World's First Islamic Residential Mortgage-Backed Securities that made some global landscape changes.

CIMB Islamic is a full-service banking franchise that being recognized year to year, it has grown to become the ASEAN's leading mid-sized Islamic banking

franchise. The board of directors of CIMB Islamic are the leaders in ASEAN financial world. They draw on rich history of CIMB Islamic to fulfill the needs of the present, in the meantime, they build the future path of CIMB Islamic.

In July 2005, Hong Leong Islamic Bank Berhad (HLISB) was officially launched as a subsidiary of Hong Leong Bank (HLB) that is wholly owned, in which, it forms an essential part of the greater Hong Leong Financial Group. Besides, it now has eight branches which is run by fully Islamic based. It also allocated network with about 270 Hong Leong Bank branches and over 1,400 self-service terminals countrywide. Therefore, it normally act as an advantage from an intense supply channel in offering Islamic banking products and services as Shariah-based which different from conventional banking.

Hong Leong Islamic Bank Berhad had merged with EON Cap Islamic Bank Berhad as part of a greater merger between Hong Leong Bank and EON Bank Berhad in November 2011. This achievement marks the merger between the two Islamic banks in Malaysia and has been providing Hong Leong Islamic Bank Berhad to have a better scale and deeper foothold in the Islamic banking industry which is very competitive.

The tactical focus of Islamic banking is to provide a combination solution that based on belief and the principles of Shariah law. Therefore, Hong Leong Islamic Bank Berhad provides its customers with a broad range of new solutions including business and corporate banking, Islamic global markets, personal financial services, wealth management and structured finance. All of the above was supported by the ongoing and intentional effort to attain quality service delivery which Hong Leong Islamic Bank Berhad was rewarded with strong financial results that standing tribute to the fundamentals in its current form and strong core competencies.

Price of financing is basically the differences between interest income generated by banks and the interest that pay out to their lenders. Such as, deposits. It is something like gross profit margin in non-financial company.

1.1.3 Importance of determinants of price of financing (NIM)

According to Aladin (n.d.), we knew that it is very important to examine the determinants of bank's price of financing which were also known as net income margin. This was because a little changes in the margin will cause a huge effect on the bank performance and profitability even on the whole economy. Besides, high net income margin may also impede our saving and investment growth. This indicate that the cost of borrowing in the financial system may leads unaffordable to some borrowers. Its implication might be more serious on developing countries due to the larger proportion of businesses and individual tend to rely on bank to meet their external financing needs.

On the other hand, we knew that the banking industry act as an intermediaries in channeling fund between borrowers and lenders. Therefore, it is essential for banks to carry out this task with the lowest possible costs. This is because when the net income or profit and loss sharing margin in Islamic bank is low, the social cost of financial intermediation will be lower, and therefore the social welfare will be greater.

This paper demonstrates that how to examine the determinants of price of financing between three full-fledged Islamic banks and three non-full-fledged Islamic banks in Malaysia through net income margin. Our research will examine on how basic financing rate, profitability, liquidity and financing to deposit ratio affect our price of financing which was also known as net income margin. In this research, we have chosen Bank Islam, Bank Muamalat, Al-Rajhi Bank, RHB

Islamic bank, CIMB Islamic bank and also Hong Leong Islamic bank which were three full-fledged and three non-full-fledged Islamic banks to study. Our problem statements were made based on the poverty issue of previous researcher. We also included lots of important implication in this chapter. Such as our objective of study, research question, hypothesis testing, significant of the study and also the layout of the chapter. The summaries of Chapter 1 will be ended with a conclusion.

1.2 Problem Statement

Since the Islamic Banking was developed successful in our country Malaysia. There are few banks that are fully adopting the Islamic Banking System such as Bank Islam, Bank Muamalat and Al-Rajhi Bank. These three banks provide the financing prices are different. For example, Bank Muamalat personal loan rate is 7.1%, Bank Islam personal i-financing rate is 6.60%. On the other hand, Malaysia also comes out with non-full-fledged Islamic bank which is CIMB Islamic, RHB Islamic and Hong Leong Islamic. These three banks also have different financing rate. CIMB Islamic is provided the Xpress personal i-financing for the customer and the annual profit rate for the bank is 24.00%. RHB Islamic Bank also has provided the personal financing for the customer short term cash flow, the profit rate has been charge by the bank is between 8.18% and 13.45%. They need to depend the customer salary income, duration of loan and other else. This is because among these banks there are providing the different financing price. So, our study is to determinant the factors that will cause the changes of the financing pricing for those banks that we had chosen. Based on the previous studies, we found that they only made the comparison between the conventional banks and Islamic banks (Muhammad, 2011). Then, the researchers are seldom to compare the full-fledged Islamic Bank and non-full-fledged Islamic Bank. So, our research wants to compare for these banks.

According to (Masruki, Ibrahim, Osman and Wahab, n.d.), the author argued that the borrower has to pay more compensate and higher profit margin rate but with cheaper funding cost. Generally, it could be said that the higher the loan rate the happier will be the bank to give more loan and the borrower is need pay more profit rate. On the other hand, according to the (Yusoff, Rahman, & Alias, 2001), the loan rate (in the case of conventional bank) or profit rate (in the case of Islamic bank) charged on customer influence the customers' decision prior to seeking loan facilities. Moreover, the borrower is prefer to the lower loan rate or profit rate because they able to repay the instalment. So, the problem is full-fledged Islamic Bank and non-full-fledged Islamic Bank are needed to come out the strategy with higher profit to the bank and cheaper financing to the borrower. Then, the bank can able to increase their comparative advantage with each other bank.

1.3 Research Objectives

- 1) To examine the relationship between Profitability and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks.

- 2) To examine the relationship between Liquidity and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks.

- 3) To examine the relationship between Base Financing Rate and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks.

- 4) To examine the relationship between Financing to Deposit Ratio and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks.
- 5) To compare the differences of determinants for price of financing (NIM) between full-fledged Islamic banks and non-full-fledged Islamic banks.

1.4 Research Questions

- 1) Is there significant relationship between Profitability and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks?
- 2) Is there significant relationship between Liquidity and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks?
- 3) Is there significant relationship between Base Financing Rate and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks?
- 4) Is there significant relationship between Financing to Deposit Ratio and Net Income Margin in full-fledged Islamic banks and non-full-fledged Islamic banks?
- 5) Is there any differences of determinants of price of financing (NIM) between full-fledged Islamic banks and non-full-fledged Islamic banks?

1.5 Hypothesis of the Study

1.5.1 Full-fledged Islamic Banks

Profitability

H_0 : There is no relationship between net income margin and profitability in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and profitability in full-fledged Islamic banks.

Liquidity

H_0 : There is no relationship between net income margin and liquidity in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and liquidity in full-fledged Islamic banks.

Base Financing Rate

H_0 : There is no relationship between net income margin and base financing rate in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and base financing rate in full-fledged Islamic banks.

Financing to Deposit Ratio

H_0 : There is no relationship between net income margin and financing to deposit ratio in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and financing to deposit ratio in full-fledged Islamic banks.

1.5.2 Non-full-fledged Islamic Banks

Profitability

H_0 : There is no relationship between net income margin and profitability in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and profitability in non-full-fledged Islamic banks.

Liquidity

H_0 : There is no relationship between net income margin and liquidity in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and liquidity in non-full-fledged Islamic banks.

Base Financing Rate

H_0 : There is no relationship between net income margin and base financing rate in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and base financing rate in non-full-fledged Islamic banks.

Financing to Deposit Ratio

H_0 : There is no relationship between net income margin and financing to deposit ratio in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and financing to deposit ratio in non-full-fledged Islamic banks.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter is basically discussing about the study and research that had done by the previous researchers on the topic of determinants of bank's price of financing. Based on the research conducted by previous researchers, there are a lot of factors may influence the bank's price of financing, which are divided into internal and external factors. In this case, those research and study have been reviewed and capture the conclusion of them in this chapter as well. From the previous research, they mostly focused on commercial banks in western country and Europe but rarely on Islamic banks. Hence, we have developed a theoretical framework on the determinants of price of financing in Islamic banks Malaysia. For the purpose of increase the reliability of this research, review on previous research is a must and also can ensure that the important variables had been included. Overall, this chapter provides a fundamental work for the following chapters.

2.1 Review of the Literature

2.1.1 Price of Financing (Net income margin)

Bank lending is the main source of financing for the individual, medium and small businesses, they apply the financing to finance their enterprise and other needs. For banks, bank lending defined as one of the source of fund for banks, it plays an important role to maintain the bank funds. At the same time, the bank lending provides liquidity of banks. Hence, it is one of the main elements that affecting the bank performance and profitability. However, the pricing of the financing, which is the financing pricing (NIM) will be affected by some other factors.

In the study of Hashim and Halim (2014), they analyze the relationship between the financing pricing and the predictors such as the based lending rates, capital adequacy ratio, loan loss provision, required reserve, GDP growth, consumer price index, financing to deposit ratio and log earning assets. They also found that one of the main factor determining the bank performance is the interest rate.

Some contemporary scholars like Zuhayli (2002) suggests the net income margin to be fixed by the authority in order to observe justice in the market and to get blessings. There should not be a profit rate that exceed one third based on “althuluth kathir”. This is because, when Abdul al-Rahman ibn’ Auf wish to make a bequest (wasiyyah), the one third of the profit rate means a lot (Zuhayli, 2002)

In the study of Trinugroho, Agusman and Tarazi (2013), they investigated the Indonesian banks after 1997/1998 financial crisis. They done the investigation about the determinants of net income margin of Indonesian bank and confirmed the loan portfolio structure matters in the determination of income margin, and

they found that in the context of Indonesian banking that having greater market power will set the higher interest margin.

Saksonova (2014) did the analysis about the net income margin (NIM) as the most important fundamental indicator for analyzing the bank operation. The banking sectors in the United States, Euro Area and Baltic countries were chosen by the author to do the analysis. At the end the author showed that the net income margin is the most appropriate criterion to evaluate the bank operation's stability and effectiveness.

2.1.2 Profitability Ratio

Financial system plays an important role in the worldwide economic operation. In the banking system, bank will transfer the funds from saving units to investing units (Hoffmann, 2011). Banks represent the intermediary from the fund surplus to fund deficit. Therefore, the bank able to get profit from the spread of interest rate.

Furthermore, the net income of the bank provides a strong information to us. This is because it tells us how well the bank perform without changing the bank's size (Duraj and Moci, 2015). However, this method make difficult in comparing how well a bank is doing compared to the other bank. Therefore, they come out with different way to measure bank's profitability.

For our understanding, we knew that usually bank will use (ROA) return of asset to represent the appropriate bank size. ROA provides very helpful and useful

information. Investor will use this measurement while making investment decision. Although ROA is helpful but this is not the major interest of the bank's owners (equity holders). Besides ROA, (ROE) return of equity, also represent how much the bank is earning on their equity investment. Meaning of the net income per currency of equity capital (Mishkin, Stanley, and Eakins, 2009). Investor will use these 2 tools to determine the bank financial status.

Net income margin is a measurement for the net profit as percentage of the revenue. Normally, bank will use this formula to calculate their bank's profit included ROA and ROE. This is the most direct way get to the result. The relationship between profitability and net income margin is positive relationship (Khan & Khokhar, 2015). This is because the higher value for the ROA and ROE, the higher value for the net income margin. Higher values for most of these ratios convey that the company is providing satisfactory balance in generating profits, revenues and cash flows. Net profit ratio gives a good indication of the overall level of profitability of the company (Khan & Khokhar, 2015).

Different banks have their different profitability, net income margin also provide the strong evidence to the bank's policies and decision. For the example, different bank they will give different interest rate to the depositor. On the other hand, the higher price of financing rate for borrower, the higher profit earn by the bank (Khan & Khokhar, 2015).

Besides that, NIM is the spread between the interest earned on assets and interest paid on liabilities. Net income margin is similar in concept to net interest spread, but the net interest spread is the nominal average difference between the borrowing and the lending rates, without compensating for the fact that the earning assets and the borrowed funds may be different instruments and differ in volume. The net income margin can therefore be higher (or occasionally lower) than the net interest spread (Lartey, Antwi & Boadi, 2013).

2.1.3 Liquidity Ratio

Liquidity at bank is basically a measurement of bank ability to convert its asset to cash in short time in order to meet unexpected withdrawal (Elliott, 2014). Most of the liquid asset are commonly comes from holding securities as it can be sold anytime when there is minimal loss (Elliott, 2014).

Studies show that liquidity ratio could affect the price of financing. According to Hoa, Do and Vu (as cited in Santos, 2011), we discovered that when a bank's liquidity ratio is high, the price of financing will also be higher. This is due to when a bank holds more liquid asset on hand to meet its unexpected withdrawal, at the same time, extra fund that use for investment with higher return are being sacrificed (Opler, Pinkowitz, Stulz and Williamson, 1999). Thus, the bank profit reduced.

Besides, those liquid assets that bank holds will be charged double taxation on interest income. Such as, bonds and securities (Hoa et al., n.d.). As a conclusion, we can see that holding large reserve of cash will cause a higher agency cost to bank and reduce its competitiveness. Therefore, the bank will increase the price of financing in order to offset the marginal increase in liquidity. Hoa et al (as cited in Santos, 2011) concluded that there is a positive relationship between liquidity ratio and price of financing.

On the other hand, Maudos and Solis (2009) found that there is an insignificant relationship between net income margin and liquidity ratio. Moreover, in Marozva (2015) research also stated that there is no significant relationship between net income margin and liquidity ratio.

2.1.4 Base Financing Rate

Base Financing Rate, a profit rate that calculated by financial institutions which takes into account of administrative costs and cost of funds to charge their net worth customers. In conventional banking, BLR was acted as a benchmark for pricing their products and so does Islamic banking. Therefore, we use BFR as one of the determinants of price of financing in full-fledged Islamic banks and non-full-fledged Islamic banks.

According to Omar, Azman, and Meera (2010), the base financing rate is some kind of rate that matched with market rate and then plus some additional basis point to compensate the risk, the higher the risk, the higher the pricing charged by banks in Islamic banks, and this statement also supported by the research done by Matete, Ndede, and Ambrose, (2014). Furthermore, from the result of Robustness Tests done by Kim, Suen, and Lin, (n.d.), interest rate risk are significantly in explaining the variations of interest rate margins for highly developed economies.

Besides that, there are also research proved that volatility of interest rate also has a positive relationship with banks' income margin (Hawtrey & Liang, 2007). Through the study by Maudos and Guevara (2004), income margin of banks depends on several variables and interest rate risk is one of the variable.

On the contrary, Hasan (2005) insists that base lending rate only used as benchmark for determine the interest rate for loans in conventional banking but not used for pricing of the Islamic products in Islamic banking. Other than that, Brock and Suarez (2000) also stated that there are inversely relationship between net income margin and interest rate risk. However, in the study done by Hashim and Halim (2014), researchers also mentioned about this statement but found it is not really true.

2.1.5 Financing to Deposit Ratio

Financing to Deposit Ratio is used to determine the amount of financing the bank has come out against the current amount of deposits in bank at the same time. The main activity of the bank is bank uses its core funds for financing. Generally, the financing-to-deposit ratio measured bank liquidity and bank profits. This ratio is calculated by dividing the total number of bank loans over the total amount of deposit. A high ratio shows that the bank does not have sufficient liquidity to meet any unexpected needs. A low ratio may shows that the bank is not earning as much as bank can deposit.

A study and analysed the relationship between net income margin and other factors, especially ROA and FDR has been carried out by Rengasamy (2014). The study concluded that both variables have a significant influence in a positive way with net income margin.

According to Nassar, Martinez, and Pineda (2014), a high ratio of financing to deposits and increase financed by capital inflows from abroad will lead to a net profit margin higher, if the related currency risk has been sufficiently appreciated. Sudden reversal of such inflows which is decline in the ratio of financing to deposits will also put pressure on the bank's business model and lead to higher income margin (Nassar et al., 2014).

2.2 Review of Relevant Theoretical Model

2.2.1 Alternation Conditional Expectations (ACE)

In the study by Beim (1996) has investigated about the determinants of bank financing price. He mentioned that previous studies had generally used the Ordinary Least Square method on this topic, but he found that there are two factors argue against the OLS in this study. Therefore, Alternation Conditional Expectation technique had been used in this study, which still separates the variables but allows them a general functional form. Through this theoretical model, the dependent variable is the price of financing and the independent variables are optimal transforms of their arguments.

2.2.2 Multiple Regression

From the other journal we had reviewed, Zoeb (1993) used multiple regression to determine the degree of relationship among the variables identified. It is because multiple regression not only can define whether the variables related or not, but also the degree of relationship. Other than that, multiple regression also could coordinated with any scale of measurement of data. Therefore, author had chosen multiple regression as the method in his study.

According to the study from Malede (2014), he examines the main determinants of commercial bank lending in Ethiopia. In his study, he employed the

quantitative research design for the large hypothesis. Lastly, he also used the multiple regression to analyze the collected data for the study.

2.2.3 Linear Regression

In the study of Abduh (2014), the author used the methodology of linear regression method and found that the macroeconomic determinants have a positive relationship with the profit. Apart from that, they had confirmed the complementarities between bank and equity market in the GCC countries.

2.2.4 Panel Data Fixed Model

Another analysis that done by previous authors, Said and Tumin (2011) that using another methodology which is the panel data fixed effect model. This model helped to incorporate balanced annual data series of non-Islamic banks and fully Islamic banks. By using this model, we can establish our evidence for the ratio and for these banks' performance link.

2.3 Proposed of Theoretical / Conceptual Framework

Figure 2.3 Theoretical Framework

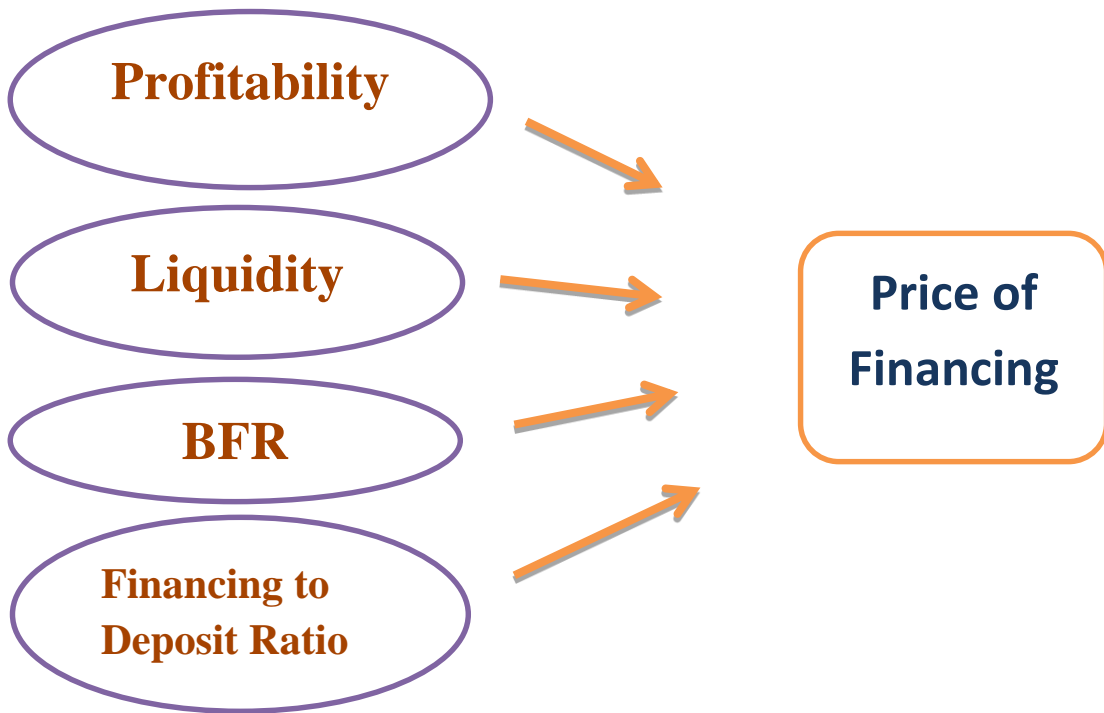


Figure 2.2: Proposed Model

$$NIM = \beta_0 + \beta_1 P + \beta_2 L + \beta_3 BFR + \beta_4 FDR + \varepsilon_i$$

Figure 2.3 has shown that the independent variables (profitability, liquidity, base financing rate, financing to deposit ratio) that used to examine the dependent variable, which is price of financing. In this research paper, we study on the factors affecting price of financing in fully Islamic banks from 2006 to 2015 and non-fully Islamic banks from 2006 to 2015. We will focus on four factors which are profitability, liquidity, base financing rate, and financing to deposit ratio.

2.3.1 Profitability

Profitability consist two main types of profit which included ROA and ROE. Profitability can straight away tell us about how well the bank performance, management, and also the economic trend. This is considering very important information to the bank's stakeholder. For the investor, they think this is help them to make the investment decision. Besides the making decision, profitability of the bank also can influence the net income margin and also the price of financing.

2.3.2 Liquidity

Liquidity for banks is actually to examine the bank's ability in converting its asset to cash in short time in order to meet customer unexpected withdrawal. These includes cash, bank reserves, holding securities, and also government debt. It can be sold anytime when there is minimal loss.

2.3.3 Base Financing Rate (BFR)

Generally, all the Islamic banks will subjected to base financing rate. In conventional banks, this rate will be called as base lending rate. The base financing rate will be set by Islamic banker itself to act as a benchmark of financing price. So that when the rate is different, the price of financing will be vary.

2.3.4 Financing to Deposit Ratio

Basically, financing to deposit ratio is use to figure out the amount of financing that the bank has come out against the total deposit that they have in bank. In another words, it is use to examine the ability of bank to cover the withdrawals made by their customers. If the ratio is high, it means that the bank does not have enough liquidity to meet any unexpected needs.

2.4 Hypothesis Development

2.4.1 Full-fledged Islamic Banks

Profitability

H_0 : There is no relationship between net income margin and profitability in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and profitability in full-fledged Islamic banks.

Liquidity

H_0 : There is no relationship between net income margin and liquidity in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and liquidity in full-fledged Islamic banks.

Base Financing Rate

H_0 : There is no relationship between net income margin and base financing rate in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and base financing rate in full-fledged Islamic banks.

Financing to Deposit Ratio

H_0 : There is no relationship between net income margin and financing to deposit ratio in full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and financing to deposit ratio in full-fledged Islamic banks.

2.4.2 Non-full-fledged Islamic Banks

Profitability

H_0 : There is no relationship between net income margin and profitability in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and profitability in non-full-fledged Islamic banks.

Liquidity

H_0 : There is no relationship between net income margin and liquidity in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and liquidity in non-full-fledged Islamic banks.

Base Financing Rate

H_0 : There is no relationship between net income margin and base financing rate in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and base financing rate in non-full-fledged Islamic banks.

Financing to Deposit Ratio

H_0 : There is no relationship between net income margin and financing to deposit ratio in non-full-fledged Islamic banks.

H_1 : There is a relationship between net income margin and financing to deposit ratio in non-full-fledged Islamic banks.

2.5 Conclusion

To make it simple, all sets of independent variables above have been used to study the essential factor that can affect bank's price of financing which was also known as (NIM) Net Income Margin. There are lots of frameworks that have been used in the previous researches to examine the relationship of the related variables and the price of financing of the bank. These includes the Ordinary Least Square (OLS), Beim (1996), multiple regression, Zueb (1993), Malede (2014), panel data fixed effect model, Said and Tumin (n.d.), and also methodology of linear regression model, Abduh (2014). Besides, we will discussed about research design, data collection method, and data analysis in Chapter three.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In this chapter, we will explain about all of the research methodology that used in this study. The research methodology and model are designed to meet the objective of the research. For the data of our independent variable, which are profitability, liquidity, base financing rate and financing to deposit ratio, quantitative data had been carried out from the year 2006 to 2015, to examine their relationship with price of financing. Besides that, the method of obtaining data also will be discussed in this chapter. Another major object consisted in this chapter is to ensure that the results of econometric tests and methodology are precise and accurate.

3.1 Scope of study

In this research we used the quantitative data to analyse the determinants of the price of financing between non-Islamic banks and Islamic banks. We use the secondary data for this study. Our research is to test how the profitability, liquidity, financing to deposit ratio and base financing rate will affect the net income margin (price of financing). Moreover, we also used the hypothesis testing to test the significant among the variables. The period of our study is from year 2006 to 2015. The sample size of our research is thirty for each category. In addition, we collected the data based on the annual-basis.

3.2 Data Collection Method

The methodologies to conduct this research are being discussed in this chapter. Besides that, the methodologies adopted to collect the data, type of data used on this research, techniques on how to fully utilize the data and manage it also included in this chapter as well. In this research, secondary data is employed for examining the determinants of bank's price of financing. Secondary data of sample banks which are Bank Islam, Bank Muammalat, Al-Rajhi Bank, CIMB Islamic Bank, RHB Islamic Bank and Hong Leong Islamic Bank were chosen to conduct this study.

3.2.1 Secondary Data

For the full-fledged Islamic banks (Bank Islam, Bank Muammalat, Bank Al-Rajhi) and the three non-full-fledged Islamic banks (CIMB Islamic Bank, Hong Leong Islamic Bank, and RHB Islamic Bank), we searched the data from different sources that belong to the category of secondary data. Secondary data was being used on this paper and those reliable data that we found were obtained from the online sources such as the official web site of the sample banks. By referring the official websites, we got the annual reports of the involved banks to get the necessary data. Besides, some of the financial data that could not acquire from annual report also obtained from their official website.

3.2.1.1 Price of financing (NIM)

The price of financing is the dependent variable in this study. It is determined by the indicators and can be expressed into the equation form. It shows the price that

going to be charged by the bank when doing the borrowing activity, in other word, it shows the price level of using the bank financing. In our research, we use net income margin (NIM) as the determination of financing pricing and set it as the dependent variable. Net income margin is an outcome that effect by some economic factors and it is suitable in expressing the factors (Profitability, Liquidity Ratio, Base Financing Rate, Financing to Deposit Ratio) that affecting the price of financing.

3.2.1.2 Profitability

Profitability is one of the important variables to examine the healthiness of a bank's income. In our research, we will use ROA and ROE to identify the profitability for each bank. It will influence NIM directly. Besides, ROE and ROA provide a very important information to investors while evaluating the rate of return.

Return On Asset (ROA) = Net Profit Margin x Asset Turnover

$$= \frac{\text{Net Profit}}{\text{Total Revenue}} \times \frac{\text{Total Revenue}}{\text{Average Total Asset}}$$

$$= \frac{\text{Net Profit}}{\text{Average Total Asset}}$$

Return On Equity (ROE) = $\frac{\text{Net Profit}}{\text{Average Stockholder's Equity}}$

3.2.1.3 Liquidity Ratio

Liquidity ratio is the probability of a bank that have insufficient cash to meet its unexpected withdrawal, loan demand, and also other cash needs. Besides, this also indicate that how well is the bank in managing its funding resources. In our studies, we have chosen liquid assets to total assets ratio to measure bank liquidity. “It is a measured of the maturity structure of the asset portfolio that can reflect excessive maturity unbalance” (Angora & Roulet, 2011). Hence, the higher is the ratio, the better is the bank’s liquidity.

$$\text{Liquid assets to total assets ratio} = \frac{\textit{Total Liquid Assets}}{\textit{Total Assets}}$$

3.2.1.4 Base Financing Rate

Base Financing Rate (BFR) is a rate that determined by the Islamic financial institution in Malaysia based on the cost of financing to borrowers, it also called as Base Lending Rate (BLR) in conventional financial institution. Basically all the banks followed the same rate of BFR because BFR changed according to the Overnight Policy Rate (OPR), which is determined by central bank Malaysia. The reason why Base Financing Rate been used in this study is the cost of borrowing to borrowers will directly influenced by it. For an example, if the financing rate is quoted at BFR-2.2%, and the respective BFR is 6.85%, in this case, the financing rate for the borrower will be 4.65%.

3.2.1.5 Financing to Deposit Ratio

Financing to deposit ratio is a ratio that uses to calculate the amount of outstanding loans compared to the amount of deposits in the bank as an indicator of banks' liquidity. If the financing to deposit ratio is high, it shows that the bank continued to issue deposit in the form of interest-bearing loans. In another words, it will generate more income. If the financing to deposit ratio is low, it shows that the bank is at low risk. It means that it does not use its assets to generate earnings and might end up losing money (Taillard, n.d.).

$$\text{Financing to Deposit Ratio} = \frac{\text{Total Loan}}{\text{Total Deposit}}$$

3.3 Data Analysis

3.3.1 Multiple regressions Analysis

In our research, we use SPSS to run the whole model. Our model will classify to the Multiple Regression Model. Under our research model are include different condition independent variables and different value of independent variables. Multiple regression attempts to predict a single dependent variable from two or more independent variables and extension of bivariate regression (Kent, 2015). This is because in our research, we have consider many categories and different characteristic structures. Therefore, we will use multiple regression analysis to help us to examine the multicollinearity, correlation, normality, linearity, homoscedasticity, independence of residuals (Pallent, 2010). This is because

multiple regression analysis assumption includes independence, normality, homoscedasticity of residuals and linear relationships among variables (Parke, 2013). We also will use this analysis to examine our model multicollinearity among the independent variables, identify the outlier and influential data points.

3.3.2 T-test analysis

T-test analysis help to evaluate the differences between two and above independent variables or unrelated group such as the groups that having different categories, patterns, designs and so on. T-test also help to detect the relationship between the independent variable and dependent variable. Besides that, we also use t-test to identify the normality in the model. Therefore, we need to fulfill the assumptions such as the independent variable are not having any relationship with another independent variable. Moreover, the dependent variable needs to assume as normality distribution and the variance of dependent variable need the equal populations which mean had the homogeneity of variance.

In the practical, there are many public research findings are false and the result tends to be invalid. The probability that a research tend to be accurate is depend the study of power and bias (Loannidis, 2005). Therefore, we need to make sure our result was valid and unbiased. We need to consider our p-value as 0.05 according to the previous study. They were used 5% and 10% of significant level (Abuduh & Idress, 2013). This previous research was study same field study with us and they excuse to take the 1% of significant because the result will tend to be negatively insignificant relationship. Besides that, according to the Neyman-Pearson Theory, there was several approach adopted and different defined.

In the SPSS t- test analysis, we will refer to the coefficients table to determine the t-test analysis whether the result is significant or insignificant relationship. Although, t-test analysis can be determine few results but in our research we only use coefficients table to read significant of independent variable between dependent variable and multicollinearity for the normality test we use scatterplot to detect.

3.3.3 Jarque-Bera Test

We have chosen Jarque-Bera test which is also one of the most popular test to check whether our estimated model is normality. Jarque-Bera test ensure our estimator fulfill all the 3 assumptions which including unbiased, consistent and have minimum variance (Gujarati et al., 2004). Our null hypothesis is that the error term is normally distributed and alternative hypothesis will be error term is not normally distributed. We are using 5% of significant level to run the Jarque-Bera test in our paper. So if p-value for Jarque-Bera test statistic is lesser than 0.05, we will reject the null hypothesis, vice versa. Meaning that if p-value is lesser than 0.05, our error term is not normally distributed.

3.3.4 Heteroscedasticity

Heteroscedasticity is one of the important assumptions in CLRM. It is used to test the variance of each error term. CLRM assumption is to ensure the model is homoscedasticity, meaning that the variance for each of the error term is equal or homo.

There are several reasons that cause the variance become heteroscedasticity. The error –learning models as we study there are some error of the behavior become smaller over the time. Heteroscedasticity can be increased when there is presence of outliers. The outlier will present when the observation size was too large or too small. Besides that, omitted of important variables in model will also cause the heteroscedasticity problem.

As what we learned, we will use both formal and informal method to detect the heteroscedasticity problem. In formal method, there will be four tests involved, this include White’s heteroscedasticity test, Glejser test, Park test, and Goldfeld-Quandt test. However, we will only use either one of the test to detect the heteroscedasticity problem. In our study, we have chosen White’s test to detect the heteroscedasticity problem. This is because White’s test can test for heteroscedasticity and also specification error.

On the other hand, informal method is actually using a graphical method to identify the heteroscedasticity according the hypothetical patterns of estimated squared residuals.

3.3.5 Correlation and Collinearity Diagnostics

There is a table labelled Correlation from the result of SPSS. This table shows the bivariate correlation between the independent variables. If the value of bivariate correlation between two variables is higher than 0.70, it means that they are highly correlated. Omitting of one variable might be considered. If the value of bivariate

correlation between two variables is lower than 0.70, it means that they are not highly correlated, the variables still can be retained in the regression.

Collinearity diagnostics was performed by the SPSS as a part of our multiple regression procedure. The purpose of this collinearity diagnostic is to pick up on the problems with unclear multicollinearity in the correlation matrix. If there is any presence of multicollinearity, it indicates that there is moderate to high level of correlation and relationship among the independent variables themselves. The estimates of the independent variable might become unreliable when there is multicollinearity problem. Thus, it is a kind of disturbance to the data. It is an obstacle if we tend to find out how well is the contribution of the independent variable in understanding the responding variable. However, it was helpful for people to investigate whether there is a causal link between the independent variables if the collinear variable was being identified.

In the result of SPSS, we refer to the table that labelled the “Coefficient” and concern about the VIF. VIF, which stand for the Variance Inflation Factor is used to measure the impact of collinearity among the variable. In the practice, if the VIF is more than 10, we should do something to overcome the problem of multicollinearity as it is indicating there is multicollinearity problem, otherwise, we need to remain independent variable in the model. Another indicator which labelled Tolerance also helps on indicating multicollinearity. Tolerance indicated how well of the variability of one manipulated variable is not influenced by another variable. If the value of Tolerance is less than 0.10, it means there is a high chance of multi correlation between the two variables. By the way, we are still able to estimate the coefficient under BLUE (Best Linear Unbiased Estimators). But, this assumption is required for trustworthy significant test and confident interval in small sample (Williams, Grajales, & Kurkiewicz, 2013).

3.3.6 Model Summary and Anova

Model summary table shows how much of the variation in the dependent variable explained by the regression model. This table comes out with the values of R and R Square. The R value states a simple correlation while R Square value shows how much of the total variation in the dependent variable.

ANOVA stands for Analysis of Variance which is use to investigate the significance of differences between two or more groups. The independent variable called factors or treatment variables and each factor contains two or more categories. ANOVA will only determine that there is a difference between groups, but it will not tell which is different. There are two types of ANOVA which are one-way ANOVA and two-way ANOVA. One-way ANOVA is for Completely Randomized Design and two-way ANOVA is for Randomized Block Design. In this research, one-way ANOVA is conducted. One-way ANOVA is used to compares there are any significant differences between the mean of three or more independent variable.

3.4 Conclusion

Make it simplified, the statistical tests that going to use in this study have been determined in this chapter. Financial ratios have been used in the process of collecting data for independent variables, such as liquidity ratio, profitability, and financing to deposit ratio. Basically, multiple regression model will be employed to examine the relationship between price of financing with all the independent variables. The following chapter will discussed about the statistical results that obtain from statistical tests and determine whether it consistent with the hypothesis on the previous chapter.

CHAPTER 4 : DATA ANALYSIS

4.0 Introduction

The discussion of this respective chapter is regarding the empirical results generated by SPSS software. At the same time, we used the e-view software to do several statistical tests. Other than that, this chapter shows the interpretation of the study on the factors affecting the financing pricing (NIM) of the full-fledged Islamic banks, non-full-fledged Islamic banks, and all the Islamic banks. The multiple regression model was being used in our research. The statistical tests that we use to analyze the data including the t-test, Jarque-Bera test, White's Heteroscedasticity test, Pearson Correlation, Variance Inflation Factor (VIF), and the Anova. Lastly, the conclusion will contain the summary of the content in this chapter.

4.1 Economic model and Individual T-test

4.1.1 Economic model and T-test for Full-fledged Islamic Banks

Table 4.1.1: Collinearity statistic for Full-fledged Islamic Banks

Variable	Coefficient	Std. Error	T-statistic	Sig
C	0.510	0.334	1.526	0.140
ROA	0.634	0.061	10.401	0
ROE	-0.210	0.101	-2.077	0.049
FDR	-0.113	0.117	-0.969	0.342
LIQ	-0.156	0.137	-1.135	0.267
BFR	0.140	0.458	0.305	0.763

$$\text{NIM} = \beta_0 + \beta_1 \text{ROA} + \beta_2 \text{ROE} + \beta_3 \text{FDR} + \beta_4 \text{LIQ} + \beta_5 \text{BFR} + \varepsilon_1$$

$$\text{NIM} = 0.510 + 0.634 \text{ROA} - 0.210 \text{ROE} - 0.113 \text{FDR} - 0.156 \text{LIQ} + 0.140 \text{BFR}$$

Where,

NIM = Net Income Margin (%)

ROA= Return On Asset (%)

ROE = Return On Equity (%)

FDR = Financing Deposit Ratio (%)

LIQ = Liquidity Ratio (%)

BFR = Base Financing Rate (%)

$$\beta_0 = 0.510$$

$$\beta_1 = 0.634$$

If the Return on Asset (ROA) increase by 1%, the Net income margin (NIM) will increase by 0.634 percentage point on average, holding other variables constant.

$$\beta_2 = -0.210$$

If the Return on equity (ROE) increase by 1 %, the Net income margin (NIM) will decrease by 0.210 percentage point on average, holding other variables constant.

$$\beta_3 = -0.113$$

If the financing deposit ratio (FDR) increase by 1%. The net income margin (NIM) will decrease by 0.113 percentage point on average, holding other variables constant.

$$\beta_4 = 0.156$$

If the Liquidity ratio (LIQ) increase by 1%. The net income margin (NIM) will increase by 0.156 percentage point on average, holding other variables constant.

$$\beta_5 = 0.140$$

If the base financing rate (BFR) increase by 1%. The net income margin (NIM) will increase by 0.14 percentage point on average, holding other variables constant.

T-test for full-fledged Islamic Banks

The table above show that the result of the T-test analysis for each independent variable. The purpose for this t-test analysis is to identify the relationship between explanatory variable and explained variable.

The decision rule for t- test analysis is α value equal to 0.05. The p-value less than 0.05, we will reject H_0 . Which mean that, there is sufficient evidence to prove that the independent variable has relationship between dependent variable. If the p-value greater than 0.05, we do not reject H_0 . This indicates that the independent variable has no relationship between dependent variable.

From the table above, the ROA p-value is 0.00 there is less than 0.05, so we can conclude that the ROA significant to NIM. For the ROE p-value is 0.049, there also less than α value 0.05. So, there is sufficient evidence to conclude the ROE is significant to NIM.

Moreover, the p-value for FDR is 0.342, there is greater than α value of 0.05. That mean, there are no relationship between FDR and NIM. In the addition, the p-value for LIQ is 0.267. So, we have sufficient evidence to conclude that, there are no relationships. Last but not least, for the BFR p-value is 0.763 is greater than is

α value 0.05. So, we have sufficient evidence to conclude there are no relationships.

4.1.2 Economic model and T-test for Non-full-fledged Islamic Banks

Table 4.1.2 Collinearity Statistic for Non-full-fledged Islamic Banks

Variable	Coefficient	Std. Error	T-statistic	Sig
C	0.507	0.331	1.533	0.138
ROA	1.005	0.215	4.683	0
ROE	-0.438	0.176	-2.494	0.02
FDR	-0.641	0.266	-2.412	0.024
LIQ	-0.941	0.260	3.626	0.001
BFR	-0.29	0.240	1.242	0.226

$$NIM = 0.507 + 1.005 ROA - 0.438 ROE - 0.641 FDR - 0.941 LIQ - 0.29 BFR$$

$$\beta_0 = 0.507$$

$$\beta_1 = 1.005$$

If the Return on Asset (ROA) increase by 1%, the Net income margin (NIM) will increase by 1.005 percentage point on average, holding other variables constant.

$$\beta_2 = -0.438$$

If the Return on equity (ROE) increase by 1 %, the Net income margin (NIM) will decrease by 0.438 percentage point on average, holding other variables constant.

$$\beta_3 = -0.641$$

If the financing deposit ratio (FDR) increase by 1%. The net income margin (NIM) will decrease by 0.641 percentage point on average, holding other variables constant.

$$\beta_4 = -0.941$$

If the Liquidity ratio (LIQ) increase by 1%. The net income margin (NIM) will decrease by 0.941 percentage point on average, holding other variables constant.

$$\beta_5 = -0.29$$

If the base financing rate (BFR) increase by 1%. The net income margin (NIM) will decrease by 0.29 percentage point on average, holding other variables constant.

T-test for non-full-fledged Islamic Banks

From the table above shown that, the ROA p-value is 0.00 there is less than α value 0.05. So, we can conclude there are relationship between ROA and NIM. Besides that, for the ROE p-value is 0.02 so we have sufficient evidence to prove that there are significant to NIM. Moreover, p-value for FDR is 0.024 there is lesser than α value 0.05, we have sufficient evidence to conclude that, there have relationship between FDR and NIM. In the addition, LIQ p-value is 0.001 there also less than α value 0.05 so LIQ has relationship to NIM. Lastly, the p-value for BFR is 0.226 there are greater than 0.05. We have sufficient evident to conclude there are no relationships.

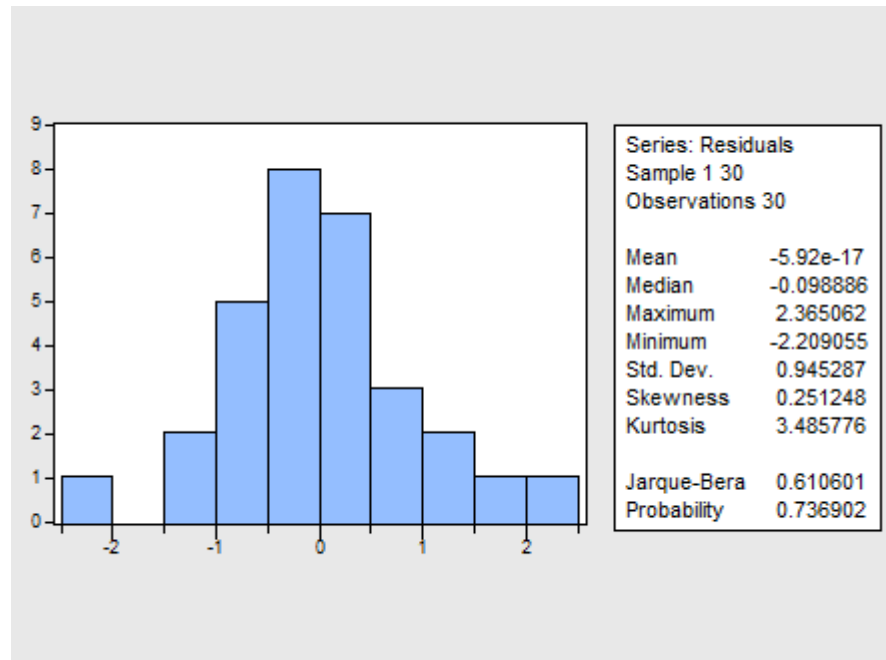
4.2 Normality of Error Term

Normality residual test is used to test if our estimated model are normality distributed. So Jarque- Bera test and Normal Probability Plot (P-P) will be conducted for our diagnosis checking.

4.2.1 Jarque-Bera Test

4.2.1.1 Jarque-Bera Test for full-fledged Islamic Banks

Figure 4.2.1.1: Jarque-Bera Test for full-fledged Islamic Banks



H_0 : The error terms is normally distributed

H_1 : The error terms is not normally distributed

Significance level of 5%, $\alpha=0.05$

Rules of Decision:

Reject H_0 if the probability value is less than $\alpha=0.05$.

Do not reject H_0 if the probability value is more than $\alpha=0.05$.

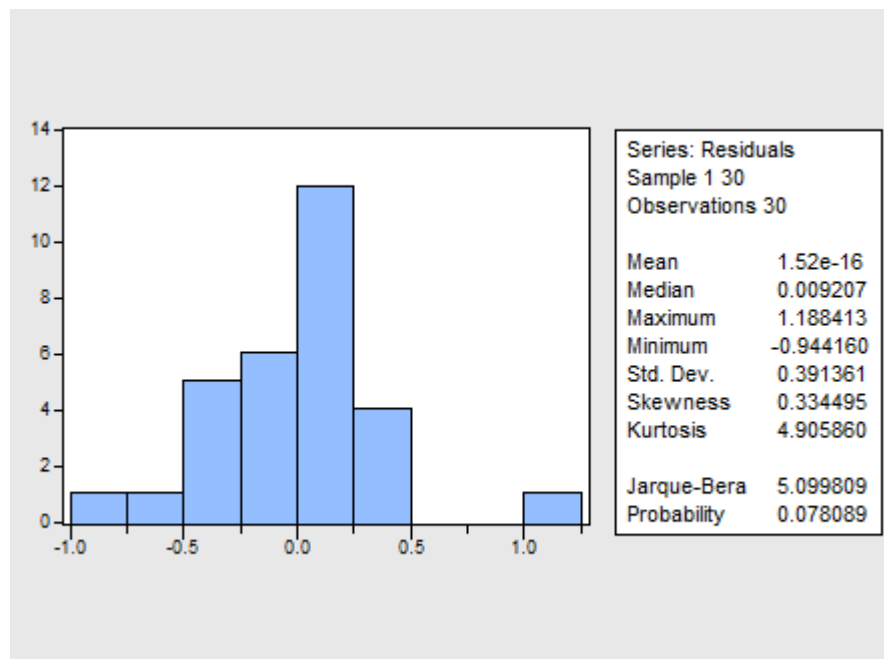
Probability value = 0.736902

We decided not to reject H_0 since the probability value 0.736902 is greater than α (0.05).

In conclusion, we have sufficient evidences to conclude that the error term is normally distributed at the 5% of significant level.

4.2.1.2 Jarque-Bera Test for non-full-fledged Islamic Banks

Figure 4.2.1.2: Jarque-Bera Test for non-full-fledged Islamic Banks



H_0 : The error terms is normally distributed

H_1 : The error terms is not normally distributed

Significance level of 5%, $\alpha=0.05$

Rules of Decision:

Reject H_0 if the probability value is less than $\alpha=0.05$.

Do not reject H_0 if the probability value is more than $\alpha=0.05$.

Probability value = 0.078089

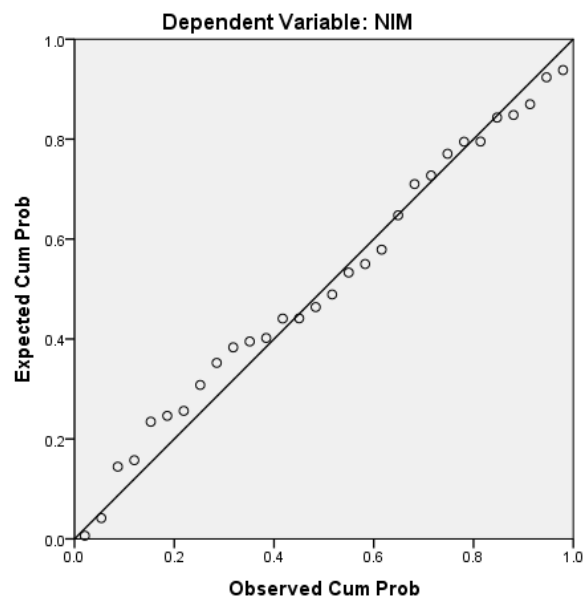
We decided not to reject H_0 since the probability value 0.078089 is greater than α (0.05).

In conclusion, we have sufficient evidence to conclude that the error term is normally distributed at the 5% of significant level.

4.2.2 Normal Probability Plot (P-P)

4.2.2.1 Normal Probability Plot (P-P) of the Regression Standardized Residual for full-fledged Islamic Banks

Figure 4.2.2.1: Normal P-P Plot of Regression Standardized Residual for full-fledged Islamic Banks

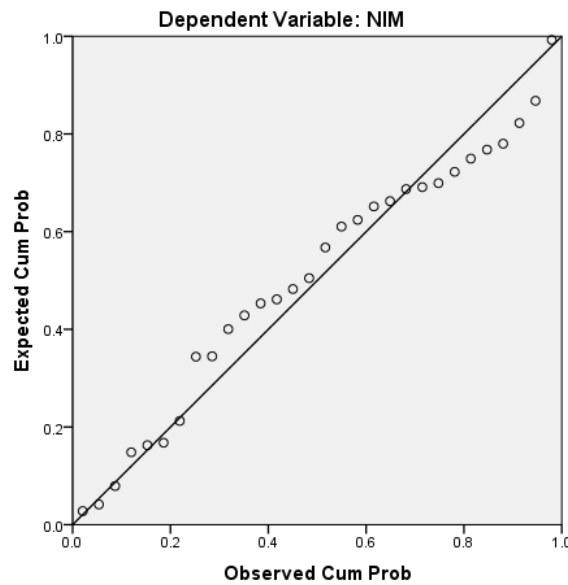


Based on the graph above, we can see that all of the plotted point are along with the reference line from bottom left to top right. There is very little deviation of the

expected value from the observed values. This indicate that the normality assumption is met and therefore, the parameter test is accurate and reliable.

4.2.2.2 Normal Probability Plot (P-P) of the Regression Standardized Residual for non-full-fledged Islamic Banks

Figure 4.2.2.2: Normal P-P Plot of Regression Standardized Residual for non-full-fledged Islamic Banks



Based on the graph above, we can see that all of the plotted point are along with the reference line from bottom left to top right. The deviation of the expected value from the observed values was not much. This indicate that the normality assumption is met and thus, the parameter test is accurate and reliable.

4.3 White's Heteroscedasticity Test

4.3.1 Heteroscedasticity for Full-fledged Islamic Banks

Table 4.3.1: White Test: Heteroscedasticity for Full-Fledged Islamic Banks

Obs*R-Square	18.83469
Prob. Chi-Square(20)	0.5326

H₀: Homoscedasticity

H₁: Heteroscedasticity

$\alpha = 0.05$

Decision Rule: Reject H₀ if p-value < $\alpha = 0.05$, otherwise, do not reject H₀.

P-value: 0.5326

Decision making: Do not reject H₀ since the p-value (0.5326) > α (0.05).

Conclusion: We have sufficient evidence to conclude that there is homoscedasticity in the model at $\alpha = 0.05$.

4.3.2 Heteroscedasticity for Non-full-fledged Islamic Banks

Table 4.3.2: White Test: Heteroscedasticity for Non-full-fledged Islamic Banks

Obs*R-Square	27.88433
Prob. Chi-Square(20)	0.1122

H₀:Homoscedasticity

H₁: Heteroscedasticity

$\alpha = 0.05$

Decision Rule: Reject H₀ if p-value < $\alpha = 0.05$, otherwise, do not reject H₀.

P-value: 0.1122

Decision making: Do not reject H₀ since the p-value (0.1122) > α (0.05).

Conclusion: We have sufficient evidence to conclude that there is homoscedasticity in the model at $\alpha = 0.05$.

4.4 Pearson Correlation

4.4.1 Pearson Correlation for Full-fledged Islamic Banks

Table 4.4.1: Pearson Correlation for Full-fledged Islamic Banks

	NIM	ROA	ROE	FDR	LIQ	BFR
NIM	1.000	0.883	-0.094	0.214	-0.193	-0.055
ROA	0.883	1.000	0.114	0.372	-0.052	-0.011
ROE	-0.094	0.114	1.000	0.078	0.150	0.401
FDR	0.214	0.372	0.078	1.000	0.231	-0.162
LIQ	-0.193	-0.052	0.150	0.231	1.000	0.120
BFR	-0.055	-0.011	0.401	-0.162	0.120	1.000

The table 4.4.1 above is the Correlation table result that generated via SPSS for full-fledged Islamic banks. It shows the correlation degree between the independent variables. The correlation degree between ROA, ROE and Financing to Deposit Ratio (FDR) are positive, which is 0.114 between ROA and ROE, and also 0.372 between ROA and FDR. On the other hand, there are negative correlation between ROA, Liquidity (LIQ) and Base Financing Rate (BFR). There is -0.052 between ROA and LIQ, and also -0.011 between ROA and BFR. Besides, the correlation between ROE with FDR, LIQ and BFR are 0.078, 0.150, 0.401 respectively. Other than that, the correlation between FDR with LIQ and BFR are 0.231 and -0.162. Table also shows that the correlation between LIQ and BFR is 0.120. According to table 4.4.1, can conclude that in the full-fledged Islamic

banks, there is lack of multicollinearity between these five independent variables as their correlation degree not exceed 0.70.

4.4.2 Pearson Correlation for Non-full-fledged Islamic Banks

Table 4.4.2 Pearson Correlation for Non-full-fledged Islamic Banks

	NIM	ROA	ROE	FDR	LIQ	BFR
NIM	1.000	0.670	0.527	-0.016	-0.134	0.067
ROA	0.670	1.000	0.896	-0.121	0.157	0.194
ROE	0.527	0.896	1.000	0.095	-0.053	0.015
FDR	-0.016	-0.121	0.095	1.000	-0.877	-0.349
LIQ	-0.134	0.157	-0.053	-0.877	1.000	0.285
BFR	0.067	0.194	0.015	-0.349	0.285	1.000

The table 4.4.2 above is the Correlation table result that generated via SPSS for non-full-fledged Islamic banks. It shows the correlation degree between the independent variables. The correlation degree between ROA, ROE, Liquidity (LIQ) and Base Financing Rate (BFR) are positive, which is 0.896 between ROA and ROE, and also 0.157 between ROA and LIQ. The degree between ROA and BFR is 0.194. On the other hand, there are negative correlation between ROA and Financing to Deposit Ratio (FDR). There is -0.121 between ROA and FDR. Besides, the correlation between ROE with FDR, LIQ and BFR are 0.095, -0.053, 0.015 respectively. Other than that, the correlation between FDR with LIQ and BFR are -0.877 and -0.349. Table also shows that the correlation between LIQ and BFR is 0.285. According to table, there is multicollinearity problem between ROA

with ROE, FDR with LIQ. This problem will be further discussed in the table of Coefficient through Tolerance and VIF value.

4.5 Multicollinearity

4.5.1 Multicollinearity for Full-fledged Islamic Banks

Table 4.5.1 Multicollinearity for Full-fledged Islamic Banks

COLLINEARITY STATISTIC		
Variables	Tolerance	VIF
ROA	0.829	1.206
ROE	0.807	1.239
FDR	0.757	1.322
LIQ	0.889	1.125
BFR	0.789	1.267

The coefficients table above shows the result of multicollinearity in our models. This is one of the “collinearity diagnostics” that help us to detect the level of multicollinearity that occurs in our model. Tolerance (TOL) and Variance Inflation Factor (VIF) are the indicators for multicollinearity. When TOL is less than 0.10 and the VIF is greater than 10, which mean that the multicollinearity is serious, otherwise there is no serious multicollinearity.

From the table above, the TOL of ROA is 0.829 which is more than 0.1, at the same time, the VIF of ROA is 1.206, which is not more than 10. So, we can conclude that there is no serious multicollinearity. On the other hand, the TOL and

VIF for ROE is 0.807 (more than 0.1), and 1.239 (smaller than 10), so there is no serious multicollinearity for ROE. For the FDR, the TOL is 0.757 which is more than 0.1 and the VIF is 1.322 and less than 10, we can conclude that there is no multicollinearity. Besides, the TOL and VIF for LIQ is 0.889 (more than 0.1) and 1.125 (smaller than 10), so there is no serious multicollinearity for LIQ. Lastly, the BFR have a TOL of 0.789 (more than 0.1) and a VIF of 1.267 (less than 10), we can conclude that there is no serious multicollinearity.

4.5.2 Multicollinearity for non-full-fledged Islamic Banks

Table 4.5.2 Multicollinearity for Non-full-fledged Islamic Banks

COLLINEARITY STATISTIC		
Variables	Tolerance	VIF
ROA	0.138	7.257
ROE	0.143	6.977
FDR	0.215	4.647
LIQ	0.224	4.470
BFR	0.793	1.261

From the table above, the TOL of ROA is 0.138 which is more than 0.1, at the same time, the VIF of ROA is 7.257, which is not more than 10. So, we can conclude that there is no serious multicollinearity. Besides, the TOL and VIF for ROE is 0.143 (more than 0.1) and 6.977 (smaller than 10), so there is no serious multicollinearity for ROE. On the other hand, the TOL and VIF for FDR is 0.215 (more than 0.1), and 4.647 (smaller than 10), so there is no serious multicollinearity for FDR. For the LIQ, the TOL is 0.224 which is more than 0.1 and the VIF is 4.470 and less than 10, we can conclude that there is no multicollinearity. Lastly, the TOL for BFR is more than 0.1, which is 0.793 and

the VIF is smaller than 10, which is 1.261. So, we can conclude that there is no serious multicollinearity.

4.6 Model Summary and Anova

4.6.1 Model Summary and Anova for full-fledged Islamic Banks

Table 4.6.1.1: Model Summary for Full-fledged Islamic Banks

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.916 ^a	.840	.806	.14965
a. Predictors: (Constant), BFR, ROA, LIQ, ROE, FDR				
b. Dependent Variable: NIM				

R Square: 0.840 which means that our model which include BFR, ROA, Liquidity, ROE and FDR explains 84.0% of the variance in NIM.

Table 4.6.1.2: Anova for Full-fledged Islamic Banks

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.816	5	.563	25.149	.000 ^b
	Residual	.538	24	.022		
	Total	3.354	29			

a. Dependent Variable: NIM

b. Predictors: (Constant), BFR, ROA, LIQ, ROE, FDR

Let $\mu_1 = \text{BFR}$, $\mu_2 = \text{ROA}$, $\mu_3 = \text{Liquidity}$, $\mu_4 = \text{ROE}$, $\mu_5 = \text{FDR}$

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

$H_1: \text{At least one of the } \mu_i \text{ is different, where } i = 1, 2, 3, 4, 5$

$\alpha = 0.05$

Decision Rule: Reject H_0 if significance value is less than $\alpha = 0.05$. Otherwise, do not reject H_0 .

Significance Value: 0.000

Decision Making: Reject H_0 since significance value (0.000) $< \alpha = 0.05$.

Conclusion: We have sufficient evidence to conclude that at least one of the mean of the variable among 5 independent variables is different at $\alpha = 0.05$.

4.6.2 Model Summary and Anova for non-full-fledged Islamic Banks

Table 4.6.2.1: Model Summary for Non-full-fledged Islamic Banks

Model Summary^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828 ^a	.686	.621	.08141
a. Predictors: (Constant), BFR, ROE, LIQ, FDR, ROA				
b. Dependent Variable: NIM				

R Square: 0.686 which means that our model which include BFR, ROE, Liquidity, FDR and ROA explains 68.6% of the variance in NIM.

Table 4.6.2.2: Anova for Non-full-fledged Islamic Banks

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.348	5	.070	10.497	.000 ^b
	Residual	.159	24	.007		
	Total	.507	29			
a. Dependent Variable: NIM						
b. Predictors: (Constant), BFR, ROE, LIQ, FDR, ROA						

Let $\mu_1 = \text{BFR}$, $\mu_2 = \text{ROE}$, $\mu_3 = \text{Liquidity}$, $\mu_4 = \text{FDR}$, $\mu_5 = \text{ROA}$

$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

H_1 : At least one of the μ_i is different, where $i = 1, 2, 3, 4, 5$

$\alpha=0.05$

Decision Rule: Reject H_0 if significance value is less than $\alpha = 0.05$. Otherwise, do not reject H_0 .

Significance Value: 0.000

Decision Making: Reject H_0 since significance value (0.000) $< \alpha = 0.05$.

Conclusion: We have sufficient evidence to conclude that at least one of the mean of the variable among 5 independent variables is different at $\alpha = 0.05$.

4.7 Conclusion

In conclusion, the multiple regression model has done several diagnostic checking and the most importantly significance t-test. It has pass the multicollinearity, heterosecdasticity and also anova statistical test in this chapter. Although we found some of the variables are not significant in full-fledged or non-full-fledged Islamic banks, which is not consistent with the studies by previous researcher. This might be caused by many reasons that will be further discussed in chapter 5.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.0 Introduction

In this chapter, the results in previous chapter will be summarized. It continues with the discussion of major finding and compared with the hypotheses stated on first chapter. Next, the implication of study will also be included in this chapter to provide relevant parties about this study in the future. Moreover, limitation of the study is included and there are several recommendations have been made to overcome the limitation as stated. Lastly, the conclusion summarized the whole paper.

5.1 Discussion of Major Findings

Table 5.1: Major Finding

Explanatory Variables	T-Test (Significance)	
	Full-fledged	Non-full-fledged
Profitability (X1)	✓	✓
Financing to Deposit Ratio (X2)	✗	✓
Liquidity (X3)	✗	✓
Base Financing Rate (X4)	✗	✗

The variable X1 (Profitability) is found significant in each full-fledged Islamic banks and non-full-fledged Islamic banks. These results is satisfy and consistent with most of the researches done by other researchers. According to Khan (2015), there is a positive relationship between profitability and net income margin. In this case, it is tally with our profitability indicator, which is ROA. In our result also indicated that there is a positive relationship between ROA and net income margin.

The variable X2 (Financing to Deposit Ratio) is found significant only in non-full-fledged Islamic banks. This result is tally with the study by Rengasamy (2014), which FDR is significant with net income margin. But in his study, it showed that

there is positive relationship, which is not consistent with the negative relationship in our study. It may be due to the banking area of the studies is different.

On the other hand, the variable X3 (Liquidity) is found significant only in non-full-fledged Islamic banks as well. It is consistent with the research that done by Santos (2011), which conclude there is relationship between liquidity and net income margin. Although our study is found negative relationship between liquidity and net income margin, whereby Santos' studies found that it is positive relationship, it may be due to the different measurement of liquidity in banks. By contrary, X3 variable is found insignificant in full-fledged Islamic banks. It can be proved by the researches done by Maudos and Solis (2009) and also Marozva (2015). In this two studies, also showed that there is no significant relationship between liquidity and net income margin.

Besides, the variable X4 which is Base Financing Rate was found that not significant in full-fledged Islamic banks and non-full-fledged Islamic banks. This is not consistent with the studies done by most of the previous researcher. The reason why this happened might be due to the previous studies was done on the area of conventional banking. Hassan (2005) also stated that base financing rate only can be used as a benchmark for price of financing in conventional banks but not in Islamic banks. Which this statement was supported by Hashim and Halim (2014), whereby there is no relationship between the base financing rate and net income margin.

5.2 Implications of study

Based on our study, the net income margin that indicates the price of financing in Islamic banking is a useful indicator. This is because, the net income margin provides the information to the market participants. It helps the borrowers to make comparison about the products offered by different Islamic banks including full-fledged Islamic banks and the non-full-fledged Islamic banks in order to do their decision of borrowing and investment. The result of our study is useful, several ratios were being chosen and calculated. The ratios that we used are essential elements that will influence the net income margin of an Islamic bank. Thus, different parties who may concern about it can refer to the ratios analyzed in this study.

Apart from that, all parties including the Central Bank in Malaysia (Bank Negara Malaysia), policy maker, market participants, economist and other parties who may concern about the Islamic Banks' financing pricing can get some useful information and understand more about the structure of Islamic banks' lending. Besides, they will be acknowledged more about the situation of the Islamic banks that including the CIMB Islamic bank, Hong Leong Islamic bank, RHB Islamic bank that categorized under the non-full-fledged Islamic Banks and on the other hand, the Bank Islam, Bank Muallamat, and Al-Rajhi Bank that categorized under the full-fledged Islamic Banks.

Islamic Banking had successfully developed all over the world, and it is still expanding and people expect that the Islamic banking have a bright future and sustainable growth. However, there is still a room for improvement for the Islamic Banking. Therefore, the potential of Islamic banking should be well optimizing. The operational efficiency is important for Islamic banks. So, Islamic banks should enhance and reposition their strategy by revising back their current and historical strategies. In this study, the comparison of the different Islamic banks

in Malaysia was made. The Islamic banks that involved in our study can refer to the analysis of differences among them from different perspectives. The top management of the Islamic banks can make their decision by considering the changes and of different ratios based on their preference. They can take actions or make some changes on their current-using strategy if they still unsatisfied and they feel the change will be better to them. Those improvements, especially the improvement of the profitability will be important and good for Islamic banks as it is the essential elements for public to evaluate the particular bank's performance and include them into the decision making.

Other than that, the multiple regression model was being constructed as a methodology in this study. The multiple regression analysis is suitable and helpful. The reason is because it helped us to determine and discover the relationship among the variables. It is important to make it clear about the relationship between the different variables in order to ensure the analysis is accurate.

5.3 Study Limitations

In our studies, there are some existing limitation that may cause our result less accurate throughout the whole research.

5.3.1 Constrain of Data

Due to non-full-fledged Islamic banks are still new, we only able to get 30 number of observation for full-fledge and non-full-fledge banks. This is still consider as a very small sample size. On the other hand, Maxwell, Kelly and Rausch (2008) stated that a large sample size will increase the accuracy of statistical analysis. Thus, our result may not fully reflect the whole Islamic banking sector in Malaysia.

5.3.2 Number of Sample Bank

According to Bank Negara Malaysia, we have a total of 16 licensed Islamic banks in Malaysia. However, we have only chosen 6 Islamic banks in our research. This is because among all the 16 banks, there are only 6 of the Islamic bank have a completed 10 years annual report. Therefore, the scarce of Islamic bank's info might lead to some of our independent variable become insignificant.

5.3.3 Lack of Journal Support on Liquidity Ratio towards NIM

Liquidity ratio is one of our independent variable in our research to determine the bank's price of financing. However, with limited resources of database, there are very less empirical researches on liquidity ratio towards NIM. So, it is not strong enough to prove that the liquidity ratio is significant to NIM.

5.4 Recommendation for Future Research

Based on our result show that, for this topic of research we need to encourage and give some guidelines for the future research for who are interested in this research paper. This is because in our research we found that had some several limitations. Therefore, we come out few suggestions to solve these problems.

Firstly, in the future research we need to increase the number of year or increase the length of period. This is because from previously we had some problem for collecting the data and found that there was lack number of year. Therefore, the sample size will be small compare with other research topic. However, the sample size was small but we can increase the sample size by using the quarterly data, semi-annual data, or monthly data. This is because we can get the more accurate and precise result by increase the sample size or adequate sample size with high quality for data collection then the result will be more reliable, valid and generalizable results (Bartlett, Kotrlik & Higgins, 2001). In our research only consist the year from 2006 to 2015 for six total full-fledged Islamic Bank and non-full-fledged Islamic Bank.

Besides that, in future research people can widen the scopes of study not only focus in Malaysia. In the future study we can conduct foreign Islamic Bank in Malaysia or can focus Malaysia Islamic bank between Foreign Country Islamic Bank. Therefore, we can attract the reader to read in the future research title. Moreover, we can include the significant independent variable. This is because the human being we will omit some important variable. For example, efficiency ratio considers the important independent variable to NIM.

Other than that, in the future working we can different estimator to test our model such as log model, lin-log model or pool OLS estimators. Therefore, the model can come out with different result. This is because allow us to compare the different result observe which model are most suitable.

5.5 Conclusion

This research aims to examine the relationship between price of financing and its determinants such as profitability, liquidity, base financing rate and financing to deposit ratio in full-fledge Islamic banks, non-full-fledged Islamic banks. Besides, this research also aims to compare the differences or determinants for price of financing between full-fledge Islamic banks and non-full-fledged Islamic banks.

Since this research aims is to determine the factors affecting the price of financing, thus it provides rationale for using multiple regression to regress the data. The result shows that profitability is significant whereas base financing rate is insignificant in full-fledged Islamic banks and non-full-fledged Islamic banks. For financing to deposit ratio and liquidity, both shows significant in non-full-fledged Islamic banks but are insignificant in full-fledged Islamic banks.

For future researches, it is recommended to enhance the number of target samples, use different estimator to test model and comparative analysis between Malaysia and other countries should be carried out.

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APPENDICES

Appendix 3.2.1A: Secondary Data for full-fledged Islamic Banks

Variable	Year	Bank Islam	Bank Muamalat	Al-Rajhi Bank
Net Income Margin (NIM)	2006	3.41	2.02	0.76
	2007	5.52	1.92	0.09
	2008	3.17	1.81	3.35
	2009	4.09	2.12	4.36
	2010	4.42	2.61	4.32
	2011	3.41	2.68	5.40
	2012	3.36	2.33	5.04
	2013	3.38	2.81	4.76
	2014	3.28	3.02	4.71
	2015	4.09	4.62	1.32
Return on Assets (ROA)	2006	1.57	0.88	0.06
	2007	1.40	0.48	0.01
	2008	1.45	0.30	1.02
	2009	0.91	0.78	2.51
	2010	1.15	1.25	2.22
	2011	1.57	2.21	2.52
	2012	1.72	0.64	2.45
	2013	1.70	0.81	2.47
	2014	1.58	1.00	1.64
	2015	1.14	1.51	1.74
Return on Equity (ROE)	2006	18.51	16.93	22.30
	2007	23.33	9.02	25.10
	2008	26.54	5.88	3.34
	2009	16.48	4.37	16.97
	2010	16.48	10.69	18.08
	2011	18.51	15.28	20.49
	2012	20.35	8.85	23.64
	2013	21.25	15.53	23.27
	2014	19.86	12.31	16.51
	2015	13.83	1.00	17.62

Financing to Deposit Ratio	2006	0.59	0.42	0.05
	2007	0.48	0.27	1.09
	2008	0.44	0.23	0.67
	2009	0.50	0.48	0.85
	2010	0.46	0.27	1.04
	2011	0.51	0.31	0.99
	2012	0.61	0.5	0.94
	2013	0.65	0.35	1.09
	2014	0.73	0.34	0.87
	2015	0.80	0.69	0.99
Liquidity	2006	0.37	0.59	0.72
	2007	0.52	0.35	0.95
	2008	0.59	0.55	0.91
	2009	0.63	0.57	0.95
	2010	0.17	0.59	0.95
	2011	0.17	0.59	0.93
	2012	0.69	0.52	0.92
	2013	0.41	0.47	0.93
	2014	0.32	0.36	0.93
	2015	0.27	0.35	0.93
Base Financing Rate	2006	6.00	6.00	6.00
	2007	6.75	6.75	6.75
	2008	6.75	6.75	6.75
	2009	5.55	5.55	5.55
	2010	6.30	6.30	6.30
	2011	6.60	6.60	6.60
	2012	6.60	6.60	6.60
	2013	6.60	6.60	6.60
	2014	6.85	6.85	6.85
2015	3.90	3.90	4.25	

Appendix 3.2.1B: Secondary Data for non-full-fledged Islamic Banks

Variable	Year	CIMB Islamic	Hong Leong Islamic	RHB Islamic
Net Income Margin (NIM)	2006	1.46	2.53	2.64
	2007	2.442	2.24	3.23
	2008	1.72	2.23	2.55
	2009	1.77	1.73	2.12
	2010	3.27	1.76	1.80
	2011	2.75	1.85	1.30
	2012	2.72	1.37	1.56
	2013	2.44	1.55	1.53
	2014	2.12	2.25	1.47
	2015	3.39	2.21	0.92
Return on Assets (ROA)	2006	0.40	3.06	1.55
	2007	1.70	1.02	1.97
	2008	1.09	1.28	1.29
	2009	0.97	1.22	0.84
	2010	2.40	1.16	0.75
	2011	1.64	1.17	0.90
	2012	1.53	0.81	0.65
	2013	1.11	1.20	0.61
	2014	0.97	1.38	0.69
	2015	0.72	1.41	0.61
Return on Equity (ROE)	2006	2.95	44.52	20.01
	2007	18.25	12.93	23.31
	2008	17.71	14.25	14.46
	2009	21.56	13.84	9.96
	2010	48.85	14.24	9.64
	2011	27.66	14.30	11.40
	2012	23.66	10.69	10.30
	2013	15.82	19.91	8.95
	2014	12.12	23.87	10.48
	2015	11.31	21.27	14.57

Financing to Deposit Ratio	2006	0.43	0.69	0.58
	2007	0.25	0.70	0.62
	2008	0.34	0.70	0.65
	2009	0.58	0.68	0.59
	2010	0.66	0.48	0.73
	2011	0.70	0.54	0.61
	2012	0.72	0.58	0.73
	2013	0.78	0.74	0.72
	2014	0.81	0.77	0.80
	2015	0.91	0.85	1.02
Liquidity	2006	0.53	0.4	0.45
	2007	0.73	0.35	0.43
	2008	0.63	0.38	0.39
	2009	0.42	0.46	0.46
	2010	0.35	0.57	0.32
	2011	0.33	0.58	0.41
	2012	0.32	0.54	0.34
	2013	0.26	0.42	0.34
	2014	0.24	0.36	0.27
	2015	0.24	0.31	0.28
Base Financing Rate	2006	6.00	6.00	6.00
	2007	6.75	6.00	6.75
	2008	6.75	6.75	6.75
	2009	5.55	6.75	5.55
	2010	6.30	5.55	6.30
	2011	6.60	6.30	6.60
	2012	6.60	6.60	6.60
	2013	6.60	6.60	6.60
	2014	6.85	6.60	6.85
	2015	4.00	3.84	3.90

Appendix 4.1.1: Coefficients Table from SPSS results for full-fledged Islamic Banks

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
	1 (Constant)	.510	.334				1.526	.140	-.180	1.199		
ROA	.634	.061	.933	10.401	.000	.508	.760	.883	.905	.850	.829	1.206
ROE	-.210	.101	-.189	-2.077	.049	-.419	-.001	-.094	-.390	-.170	.807	1.239
FDR	-.113	.117	-.091	-.969	.342	-.354	.128	.214	-.194	-.079	.757	1.322
LIQ	-.156	.137	-.098	-1.135	.267	-.439	.127	-.193	-.226	-.093	.889	1.125
BFR	.140	.458	.028	.305	.763	-.805	1.085	-.055	.062	.025	.789	1.267

a. Dependent Variable: NIM

Appendix 4.1.2: Coefficients Table from SPSS results for non-full-fledged Islamic Banks

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	.507	.331		1.533	.138	-.175	1.189					
ROA	1.005	.215	1.442	4.683	.000	.562	1.448	.670	.691	.535	.138	7.257
ROE	-.438	.176	-.753	2.494	.020	-.801	-.076	.527	-.454	.285	.143	6.977
FDR	-.641	.266	-.595	2.412	.024	-1.190	-.093	-.016	-.442	.276	.215	4.647
LIQ	-.941	.260	-.877	3.626	.001	-1.477	-.406	-.134	-.595	.415	.224	4.470
BFR	-.298	.240	-.160	1.242	.226	-.794	.197	.067	-.246	.142	.793	1.261

a. Dependent Variable: NIM

Appedix 4.3.1: White Test for full-fledged Islamic Banks

Heteroskedasticity Test: White

F-statistic	0.759103	Prob. F(20,9)	0.7112
Obs*R-squared	18.83469	Prob. Chi-Square(20)	0.5326
Scaled explained SS	14.98202	Prob. Chi-Square(20)	0.7774

Test Equation:
 Dependent Variable: RESID^2
 Method: Least Squares
 Date: 03/08/16 Time: 23:17
 Sample: 1 30
 Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	119.6424	115.9130	1.032174	0.3289
ROA	-3.280164	26.68882	-0.122904	0.9049
ROA^2	0.890648	1.357470	0.656109	0.5282
ROA*ROE	0.279095	0.509464	0.547820	0.5971
ROA*LIQUIDITY	1.143668	9.301336	0.122957	0.9048
ROA*BFR	-0.288140	4.250214	-0.067794	0.9474
ROA*FINANCING_TO_DEPOSIT_RAT	-4.789226	7.514794	-0.637306	0.5398
ROE	0.882015	1.009292	0.873895	0.4049
ROE^2	-0.014289	0.020418	-0.699849	0.5017
ROE*LIQUIDITY	-1.084503	0.842843	-1.286719	0.2303
ROE*BFR	0.019475	0.181941	0.107042	0.9171
ROE*FINANCING_TO_DEPOSIT_RAT	-0.171252	0.871271	-0.196554	0.8485
LIQUIDITY	43.19868	22.68888	1.903958	0.0893
LIQUIDITY^2	-12.37635	16.65629	-0.743044	0.4764
LIQUIDITY*BFR	-4.621895	3.048707	-1.516018	0.1638
LIQUIDITY*FINANCING_TO_DEPOSIT_RAT	28.64279	27.78901	1.030724	0.3296
BFR	-36.00532	33.26282	-1.082450	0.3072
BFR^2	2.603816	2.403299	1.083434	0.3068
BFR*FINANCING_TO_DEPOSIT_RAT	10.62458	15.84405	0.670572	0.5193
FINANCING_TO_DEPOSIT_RAT	-83.59501	111.2603	-0.751346	0.4716
FINANCING_TO_DEPOSIT_RAT^2	2.829082	21.46234	0.131816	0.8980
R-squared	0.627823	Mean dependent var	0.863782	
Adjusted R-squared	-0.199237	S.D. dependent var	1.385149	
S.E. of regression	1.516872	Akaike info criterion	3.867205	
Sum squared resid	20.70811	Schwarz criterion	4.848043	
Log likelihood	-37.00808	Hannan-Quinn criter.	4.180984	
F-statistic	0.759103	Durbin-Watson stat	2.326516	
Prob(F-statistic)	0.711198			

Appedix 4.3.2: White Test for Non-full-fledged Islamic Banks

Heteroskedasticity Test: White

F-statistic	5.930962	Prob. F(20,9)	0.0047
Obs*R-squared	27.88433	Prob. Chi-Square(20)	0.1122
Scaled explained SS	34.85193	Prob. Chi-Square(20)	0.0209

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 03/08/16 Time: 22:59

Sample: 1 30

Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.68414	36.89566	0.669026	0.5203
ROA_____	-9.725990	6.974983	-1.394411	0.1967
ROA_____^2	-4.245916	1.795647	-2.364560	0.0423
ROA_____ * ROE_____	0.485353	0.192523	2.521013	0.0327
ROA_____ * LIQUIDITY	0.413055	7.008529	0.058936	0.9543
ROA_____ * BFR	2.012938	0.817444	2.462479	0.0360
ROA_____ * FINANCING_TO_DEPOSIT_RAT	-2.816806	5.459725	-0.515925	0.6183
ROE_____	-0.200659	0.390607	-0.513711	0.6198
ROE_____^2	-0.012025	0.004942	-2.433342	0.0378
ROE_____ * LIQUIDITY	0.652794	0.416369	1.567825	0.1514
ROE_____ * BFR	-0.074758	0.050833	-1.470646	0.1755
ROE_____ * FINANCING_TO_DEPOSIT_RAT	0.439604	0.309101	1.422201	0.1887
LIQUIDITY	-3.934343	62.61761	-0.062831	0.9513
LIQUIDITY^2	-4.657712	29.09943	-0.160062	0.8764
LIQUIDITY * BFR	1.455484	2.017973	0.721260	0.4891
LIQUIDITY * FINANCING_TO_DEPOSIT_RAT	-19.20568	47.26095	-0.406375	0.6940
BFR	-7.375180	3.397954	-2.170477	0.0581
BFR^2	0.403894	0.150694	2.680233	0.0252
BFR * FINANCING_TO_DEPOSIT_RAT	1.428739	1.949973	0.732697	0.4824
FINANCING_TO_DEPOSIT_RAT	19.46826	51.19408	0.380283	0.7126
FINANCING_TO_DEPOSIT_RAT^2	-20.61664	19.38840	-1.063349	0.3153

R-squared	0.929478	Mean dependent var	0.148058
Adjusted R-squared	0.772762	S.D. dependent var	0.297613
S.E. of regression	0.141871	Akaike info criterion	-0.871773
Sum squared resid	0.181146	Schwarz criterion	0.109065
Log likelihood	34.07660	Hannan-Quinn criter.	-0.557995
F-statistic	5.930962	Durbin-Watson stat	2.343903
Prob(F-statistic)	0.004700		