THE DETERMINANTS OF PROFITABILITY ON FULL-FLEDGED ISLAMIC BANK AND ISLAMIC WINDOW BANK IN INDONESIA AND MALAYSIA FROM 2011-2016

A THESIS

Presented as Partial Fulfillment of the Requirements
to Obtain the Bachelor Degree in Accounting Department

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DEPARTMENT OF ACCOUNTING
INTERNATIONAL PROGRAM
FACULTY OF ECONOMICS
UNIVERSITAS ISLAM INDONESIA
YOGYAKARTA
2018

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Defended before the Board of Examiners
on and Declare Acceptable

Board of Examiners

Examiner I

Rifqi Muhammad, SE., SH., M.Sc (5 April 2018)

Examiner II

(Yunan Najamudin Drs., M.B.A.) (10 April 2018)

Yogyakarta, April 10, 2018
International Program
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DECLARATION OF AUTHENTICITY

Herein I declare the originality of the thesis; I have not presented anyone else's work to obtain my university degree, nor have i presented anyone else's words, ideas, or expressions, without acknowledgement. All quotations were cited and listed in the bibliography of the thesis.

If in the future this statement was proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequences.

Yogyakarta, January 21, 2018

Shigeo Prasasti Purna

ACKNOWLEDGEMENT

Alhamdulillahi Rabbil'aalamin. All praise to Allah *subhanahu wa ta'ala* for enlighten me with religion of Islam and beloved prophet Muhammad *shallallahu'alaihi wa alaa alihi wa sallam* for guiding me to the way of the truth in understanding the religion of Islam, hence this thesis could be finished. Finally, I could finish my thesis entitled **"The Determinants of Profitability on Full-fledged Islamic Bank and Islamic Window Bank in Indonesia and Malaysia from 2011-2016"**. I realize that this thesis would not have been possible without the persistent help, trust, and support of those people surrounding me. In this occasion, I would like to say thank you for:

1. Allah *subhanahu wa ta'ala* the Great and the Almighty who had been blessing natures including me to finish the thesis.
2. Prophet Muhammad *shallallahu'alaihi wa sallam* and his two generations of his companion that guide me in order to practice pure and true Islam
3. My mother, who patiently waiting for me to obtain my bachelor degree in accounting. The one who always look up to my health. The one who sometimes have a debate against me because of my way of life that following the path of *salaf*. The one who put attention for me for 23 years. But still I love my mother until I meet Allah *subhanahu wa ta'ala*.
4. My father, who always taking everything seriously. The one who always busy all the time that my family rarely go on vacation with the presence of him. The one who always express his statement according to his literatures. The one who was workaholic. The one who loves his pets (*arowana* fish & *bekisar* cock). But still, I also love my father after my mother until I meet Allah *subhanahu wa ta'ala*.
5. Mr. Rifqi Muhammad, SE., SH., M.Sc who patiently guide me from the beginning to the very end as his thesis student. The one who had kindly paid attention to the student's thesis. The one who want me to obtain my degree sooner. The one who had broad insights about *Sharia* accounting.

6. Miss Alfi Zakiya, S.Kom., S.Pd. as my language advisor who literally had given me advise until the last breath of my thesis journey.
7. Mr. Anas Hidayat, MBA, PH.D as the Head of Business and Economics Department Universitas Islam Indonesia, who kindly accept any papers that needs to be authorized by him. He was such an easy-going person.
8. Mr. Rokhedi Priyo Santoso, S.E., MIDEc. as Deputy Head of Business and Economics Department Universitas Islam Indonesia, who had organized and strong character. The one who always ask everything in detail and give precise advises to his students.
9. All of my 2013 accounting friends, Faruq, Ardi, Bagas, Bhayu, Khresna, Adun, Reza, Allita, Kiki, Fanny, Putri, Rachma, Diana, Delia, Chyntia, Kurniasari, Intan, Nate, Ima, Ira, without you all, I can literally walk alone to the class and concentrate hHAHA, just kidding, actually without you all, maybe I could find myself lost in the middle of bachelor journey. Former accounting buddies, Kemal and Arif. All of my HMJA KOMISI friends that introduce me the life of organization geeks. All of my IPF friends that introduce me to the second life of organization nerds.
10. All of my *ta'lim* friends in masjid Al-Fatah Sedan, *ma'had* Al-Anshor Yogyakarta, and masjid Agung Manunggal Bantul. At first, I thought they were the real terrorists, but once I sat down with them and heard their Islamic lectures, I can tell you that these were the real Islam that was brought by *Rasulullah shallallahu'alaihi wa sallam* and second best generation of his companions. What they heard in Islamic lectures, it seems like they heard wisdom directly from *Rasulullah shallallahu'alaihi wa sallam*, so they immediately implement what they heard. *In syaa Allah*, may Allah grant us *istiqomah* in this path of the pious predecessors (*Salafiyyin*). Because of these people, I can be closer to Allah *subhanahu wa ta'ala* and *Rasulullah shallallahu'alaihi wa sallam.* Thus, I can work on my thesis with clear mind although I had approximately a month focused on studying Islam with them. That was why I left my thesis quite long.

I truly hope this study can give a positive contribution to the improvement in our world now and in the future.

Wa'alaikumussalam warahmatullahi wabarakatuh

Yogyakarta, December 22, 2017

Shigeo Prasasti Purna

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Abstract

Since the crisis from 2007 until 2009, there were sub-prime global lending crisis which affected the performance of banking industry not only in superpower country, the United States of America, but also worldwide nation, including Indonesia and Malaysia. Due to the crisis happening, it made banking industry as the most dependent institution that other businesses relied onto at least for the moment. The fact that *Sharia* Bank could endures its sustainability from the crisis, it attracted people to save their money to them. This research aimed to examine the determinants of profitability in Islamic Banks. The population was Islamic Full-fledged Bank and Islamic Window Bank in Indonesia and Malaysia. This research used purposive sampling. In Indonesia, the sample was taken from *Otoritas Jasa Keuangan*/OJK, while in Malaysia it was from *Bank Negara Malaysia*/BNM from 2011-2016. The sample consisted of 32 Banks in Indonesia, 17 Banks in Malaysia. Regression was mainly used in the research. The finding suggested that liquidity had influenced return on asset positively in Islamic Banks of Indonesia. While in Malaysia, the findings suggested that liquidity and non-performing financing had positive and significant relationship toward return on asset. There were also some variables that influenced negatively in Islamic Banks of Indonesia, which were deposit ratio and *Sharia* Supervisory Board. The variables in Indonesia that influenced negatively were similar respectively in Malaysia with an addition of financial leverage. There were also external factors included which were inflation and GDP growth rate. These variables were influenced significantly ROA in positive manner for both countries.

Keywords: Return on Asset, profitability, internal factor, external factor, Sharia banks, Indonesia, Malaysia

Abstrak

Sejak krisis tahun 2007 sampai 2009, *sub-prime global lending crisis* yang mempengaruhi kinerja industri perbankan terjadi pada tidak hanya negara adidaya, Amerika Serikat, tetapi juga seluruh negara, termasuk Indonesia dan Malaysia. Dikarenakan terjadinya krisis tersebut, industri bank menjadi insitutsi yang paling berpengaruh dimana bisnis lain bergantung kepadanya terkhusus pada masa itu. Masyarakat tertarik untuk menyimpang uang pada bank *Syariah* dikarenakan fakta menunjukkan bahwa bank *Syariah* dapat menahan keberlanjutan kinerja-nya terhadap krisis tersebut. Riset ini bertujuan untuk menyelidiki determinan dari profitabilitas dalam bank *Syariah*. Bank Umum *Syariah* dan Unit Usaha *Syariah* di Indonesia dan Malaysia merupakan populasi dari riset ini. Riset ini menggunakan *purposive sampling*, sampel di Indonesia diambil dari Otoritas Jasa Keuangan/OJK, sedangkan di Malaysia diambil dari Bank Negara Malaysia/BNM mulai tahun 2011 hingga 2016. Sampel riset ini terdiri dari 32 bank di Indonesia dan 17 bank di Malaysia. Regresi merupakan alat statistik yang dipakai pada riset ini. Temuan dari riset ini menunjukkan bahwa likuiditas mempengaruhi *return on asset* secara positif pada bank *Syariah* Indonesia. Sedangkan di Malaysia, temuan menunjukkan bahwa likuiditas dan kredit macet berpengaruh positif dan signifikan terhadap *return on asset*. Adapun variabel-variabel yang berpengaruh negatif di negara Indonesia, yakni rasio deposit dan Dewan Pengawas *Syariah*. Variabel yang berpengaruh negatif signifikan pada Indonesia tersebut juga sama seperti di negara Malaysia dengan tambahan variabel *financial leverage*. Adapun faktor eksternal yang termasuk adalah inflasi dan persentase pertumbuhan PDB. Variabel eksternal tersebut berpengaruh pada *return on asset* secara positif dan signifikan untuk kedua negara.

Kata kunci: return on asset, profitabilitas, faktor internal, faktor eksternal, bank syariah, Indonesia, Malaysia

CHAPTER I

INTRODUCTION

1.1 Research Background

Financing institution in global financial system takes an important role in primary market and secondary market. According to Alrifai (2015), todays world global financial system was built to compile debt that was supported by fiat money. Meanwhile, fiat money system exerted simultaneously together along with the government's promises. History had shown that government broke those promises most of the time that would not result positive outcomes. On the other side, for the economy to grow, it must be stimulated by ever increasing amount of debt. Nowadays, it was obvious that it cannot be repaid and if it stays constant, it may cause crash system.

Over the past 44 years, the world applied fiat money system as the cause of United States dropped out Bretton Wood agreements, which removed any backing of U.S. Dollar other than the government promises. Overall, the growth of debt in 1971 indicated a steep increase of rate. As a result, a minor shock identified globally was the sub-prime crisis that occurred in 2007. The side effect of the crises was that the world economy became a burden on a recess and a declining of money supply. Alrifai predicts that there would be another crisis that much worse than the sub-prime lending crisis.

According to Rosenthal (2011) in Ben & Mokni (2014), after decades of deregulation, globalization and financial innovation, the banking sector had prospered the near collapse of the financial market. Market developments have transformed the operating environment of the banking sector. External and

internal factors have affected its structure and performance. According to Trad, Ali, & Franc (2017) since 2007 until 2009, the sub-prime global lending crisis affects the performance of banking industry not only in U.S. but also worldwide nation, making it the most dependent institution that other business relied onto.

According to Alrifai (2015), the sub-prime lending crisis was caused by Lehman Brothers that was filed for bankruptcy and AIG as the oldest and biggest insurance company in U.S. that was on the verge of collapse. The results of the event, U.S. lawmakers started working on the Emergency Economic Stabilization Act, a comprehensive bill to bail out financial institutions in order to save the economy. At the same time, Freddie Mac and Fannie Mae were being investigated by the FBI for accountability in house fraud along with 26 other financial institutions including AIG and Lehman Brothers.

Federal Deposit Insurance Corporation or FDIC as the largest bank in U.S. history failed to overcome the issue. In the meantime, the issue spread rapidly. The Emergency Economy Stabilization Act was defeated in the House of Representatives, causing a panic in stock market while The Dow Jones stock dropped 777 points at that time. The stock market continued to fall as many parties change immediately their strategies and policies. One month afterwards, the raging was affecting global economy.

According to Stout (2011) in Mongid (2016), the banking issue arisen was a result of excessive risk by establishing financial innovations and credit derivatives. The core problem of 2008 crisis was the failure to anticipate housing market and lenders' decisions to provide mortgages to individual with lesser credit quality by the banking industries.

In Asia, Asian crisis occurred in 1997 which also became burden on most of ASEAN countries including Malaysia and Indonesia. The first crisis stroke Thailand which attacked its currency and the foreign minister of the 10 ASEAN countries believed that it was committed in order to destabilize the ASEAN economy. As the outcomes of that, Thailand had to give up their currency to U.S., massive layoffs in banking, real estate, and construction. The currency fell beyond 75 percent during the crisis as the country began to collapse.

Indonesia, South Korea and Thailand was affected mostly by the crisis, yet Hong Kong, Malaysia, Laos and Philippines felt the crisis as well, specifically in their devaluation of currency and real estates. In 1998, Malaysia refused to opt IMF bailout, instead of imposing the strict of capital controls, stopped overseas trading in ringgit currency, and imposed a minimum one year stay period for foreign portfolio funds to discourage hot money from coming to the country. By the end, the output of the real economy declined. Construction, manufacturing and agriculture were all suffering a downward trend. Overall, the country's GDP dropped 6.2 percent in 1998, but then it recovered in 2005 as the current account developed to $14 billion surplus.

While in Indonesia, they opted to an IMF bailout. IMF launched $40 billion program to stabilize the currencies in South Korea, Thailand and Indonesia. Yet the efforts to stabilize Indonesia's currency lead to failure. Resulting a collapse in rupiah and sparking riot across the country. According to Sahara (2013) who studied Islamic banking in Indonesia, monetary crisis that occurred in 1998 had forged conventional banks to be liquidated due to the disability to perform their obligation toward customer because of the effect of high rate interest policy stated by the government during the crises. In the case of

Islamic bank, the interest rate policy was not applied on them because of the Islamic law where interest-free which was applied as the core principle, enabling the bank to resist the negative shocks. Furthermore, Islamic bank only pays profit and loss sharing toward their customer based on the percentage of profit gained by the investment.

It can be inferred that banking industry had a role to stabilize the national economy especially during global crisis. On the other hand, the essential purpose of banking industry was to support other businesses by providing financing consumer and/or business firms besides financing business activities as stated by Rashid & Jabeen (2016). An outstanding performance of finance provider may mitigate negative global shocks and help stabilize financial system. In contrast, less profitable and much risky financing business may decline the growth of economy and destabilize financing system as stated by the author.

In other case, according to Bourkhisa and Nabib (2013) in Mongid (2016), the global financial crisis had influenced a series of failure of many conventional banks which affects an increase on interest in the Islamic banking business model. They find that Islamic banking was vulnerable to crisis and express their ability to retain robustness during the crisis.

Beside that, the number of Muslims was expected to increase by 73% from 1.6 billion in 2010 to 2.8 billion in 2050. In 2010, Muslims made up 23.2% of the global population. Four decades later, they were expected to be the three among ten of the world's people of 29.7%.

Based on the above explanation, it was suitable to conduct a research on Islamic banking that resist impressively on global crisis and examine the factors that incorporated in generating profitability. Since Islamic banking was social-

oriented organization, which contrasted with its opposition, the conventional banking emphasizes interests.

In order to measure the performance of banking industry, some prior studies suggested to use profitability as a tool to measure its performance (Zarrouk et al., 2016; Sahara, 2013; and Farrashita 2015). Specifically, the proxy of profitability used return on asset (ROA) which emphasized the ability of the organization to generate earning in the operational activities. According to Farrashita (2015), profitability indicated the outstanding of the prospect of the organization that would be possessed in long-term. The higher the profitability, the longer they might comprised and the higher the financing performance the higher the high rate of return. Therefore, the dependent variable used was return on asset since it was the most reliable manner on how to measure the profitability of banking industry. It was also suggested by prior studies that also measured the profitability of Islamic banking such as Zarrouk et al. (2016); Sahara (2013); Riyadi & Yulianto (2014); Farrashita (2015); Wibowo & Syaichu (2013); Ma'isyah & Mawardi (2015); Ben & Mokni (2014); Trad et al. (2017); Ramlan & Sharrizat (2016); Suryani (2011)Widokartiko et al. (2016); Mawaddah (2015); Hosen & Rahmawati (2016); Siddique et al. (2012).

Meanwhile, the independent variables that support the dependent variable were identified from prior studies which were internal factors and external factors. For internal factors, the variables were deposit to total asset, capital ratio, operational efficiency, non-performing financing. While for external factors, the variables were inflation and gross domestic product. These variables were expected to have significant influence toward return on asset.

Table 1.1

Size and Projected Growth of Major Religious Groups

	2010 POPULATION	% OF WORLD POPULATION IN 2010	PROJECTED 2050 POPULATION	% OF WORLD POPULATION IN 2050	POPULATION GROWTH 2010-2050
Christians	2,168,330,000	31.4%	2,918,070,000	31.4%	749,740,000
Muslims	1,599,700,000	23.2	2,761,480,000	29.7	1,161,780,000
Unaffiliated	1,131,150,000	16.4	1,230,340,000	13.2	99,190,000
Hindus	1,032,210,000	15.0	1,384,360,000	14.9	352,140,000
Buddhists	487,760,000	7.1	486,270,000	5.2	-1,490,000
Folk Religions	404,690,000	5.9	449,140,000	4.8	44,450,000
Other Religions	58,150,000	0.8	61,450,000	0.7	3,300,000
Jews	13,860,000	0.2	16,090,000	0.2	2,230,000
World total	**6,895,850,000**	**100.0**	**9,307,190,000**	**100.0**	**2,411,340,000**

Source: The Future of World Religions: Population Growth Projections, 2010-2050

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1.2 Problem Formulation

Based on the background study, the problem statement proposed is: What are the determinants of profitability in Islamic banks?

1.3 Research Objectives

Based on the above explanation, the research objectives are as follow:

1. To analyze the influence of Deposit Ratio toward Profitability of Islamic Banking in Indonesia and Malaysia
2. To analyze the influence of Financial Leverage toward Profitability of Islamic Banking in Indonesia and Malaysia
3. To analyze the influence of Liquidity Ratios toward Profitability of Islamic Banking in Indonesia and Malaysia
4. To analyze the influence of Non-Performing Financing toward Profitability of Islamic Banking in Indonesia and Malaysia
5. To analyze the influence of *Sharia* Supervisory Board toward Profitability of Islamic Banking in Indonesia and Malaysia

6. To analyze the influence of Gross Domestic Product Growth toward Profitability of Islamic Banking in Indonesia and Malaysia
7. To analyze the influence of inflation toward Profitability in Islamic Banking of Indonesia and Malaysia

1.4 Research Contribution

1. Theoretical Contribution

The research on determinants of Islamic banking profitability needs to be examined in order to add more references in the related topic. Therefore, this research hopefully would become future researcher's reference by comparing objects to enhance relevancy and to develop such research in order to generate more relevant determinants that affects the profitability in Islamic banking in Indonesia and Malaysia.

2. Practical Contribution

The research generally describes information about the determinants of Islamic banking's profitability in correlated with Return on Asset of the banks in both countries. The determinants obtained from previous researchers were deposit to total asset ratio, debt to total asset ratio, financing to deposit ratio, quick ratio, current ratio, non-performing loan/impaired loan ratio, bank size, *Sharia* Supervisory Board, inflation rate, and GDP growth. Based on the knowledge obtained, practitioners and academicians hopefully can determine the profitability of Islamic banking in Indonesia and Malaysia.

1.5 Systematics of Writing

Chapter I

In this chapter, the background of the research is explained along with the problem formulation, research objectives, research contributions and the systematic of writing.

Chapter II

The second chapter discussed about review of related literature, theories from previous studies that the researcher used, hypothesis formulation, and previous studies.

Chapter III

The third chapter discussed the population of the data, the listed sample that the researcher used, research model, conceptual framework, and the data analysis that the researcher used to analyze the data.

Chapter IV

The fourth chapter explained about findings and analysis of the data, hypothesis testing, and results.

Chapter V

The last chapter discussed about the conclusions, limitations, recommendations for practitioners and academicians and suggestion regarding with the research.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1 Conventional banking system

According to Heffernan (1996), banks were normally distinguished from other types of financial firms that provide deposit and loan products. The deposit product system was pay out money on demand, or after some notice. Thus, banks manage liabilities in the business, and also lend money in the process. It generates bank assets. Alternatively, one can argue banks were in the business of managing assets which were funded by deposits or other liabilities.

Conventional banks work with the regulation of government and international market rate. When the government sets the high interest rate, there would be many riskier borrowers that would apply for loan. On the other hand, the demand of loan from borrower was decreasing as interest rate also decreases. In organizational form, according to Coase (1937), firm acted as an alternative for market transactions, as a way of organizing economic activity, because some procedures were more efficiently organized by command than reliance on market price. Therefore, it was more profitable to use a firm structure than to rely on market forces.

The existence of the traditional bank, which intermediates between borrower and lender, and which offers a payments service to its customers, fits in well with Coase theory. The intermediary and liquidity functions of a bank were more efficiently carried out by a command organizational structure because loans and deposits were internal to a bank. Such a structure was also efficient if banks were participating in organized markets. These ideas were developed and

extended by Alchian & Demsetz (1972), who emphasized the monitoring role of the firm and its creation of incentive structures.

Conventional banks basically apply principal-agent, which generally known as agency theory. According to Heffernan (1996), a principal-agent problem exists within any firm because both internally and externally, its activities were a collection of contracts between principal and agents. The principal-agent problem arises if the principal or depositor delegates some authority to the agent or bank to act on his/her behalf. But the agent had more information about his/her own characteristics than the principal. Thus, the principal may not get exactly what he/she wants because the task had been delegated to the bank. This was a classic problem between principal-agent; customers delegate some control over their financial affairs to an agent, who may lack the incentives to act in customers' best interests, and can plead bad luck when outcomes were poor. The principal-agent theory also explains the nature of contracts between shareholders of a bank as principal and its management as agent, the bank as principal and its officers as agents, the bank as principal and debtors as its agent. Incentives issue arises because the agent's actions for example shareholder-management or the principal had inferior information compared to the agent.

In modern banking system, there was a whole range of specialist banks which focus on niche markets and generalist banks which offer a wide range of banking and other financial products, as diverse as deposit accounts, loan products, real estate services, stockbroking, and life assurance. For example, there were firms which act as private bankers accepting deposits from high net worth individuals and investing in a broad range of financial assets. Merchant banks in

UK and investment banks in USA have a relatively small deposit base but access a wide range of funds, from the equity, bond, and syndicated loan markets. Commercial banking, an American term, consists of wholesale and retail banking activities, but not investment banking. Universal banks, the norm in Germany, combine investment, wholesale, and retail banking services, and offer non-banking financial products, such as insurance. However, the differences in the functions of banks do not alter the fundamental definition of banks that they perform in an intermediary role in an economy which was done by accepting deposits and making loans.

2.2 Islamic banking system

According to Ayub (2007), in Al-Qur'an Surah An-Najm verses 3 and 4: *"Nor did he speak from [his own] inclination, It was not but a revelation revealed".* In this verses, it can be inferred was that Al-Qur'an is a primary sources of the divine law which required to complete submission to *Sharia* rules. According to Islamic belief, Al-Qur'an is the last revealed book from the Almighty, free from any tampering until the Hereafter. This is also mentioned in Al-Qur'an Surah Al-Hijr verse 9: *"Indeed, it was We who sent down the Qur'an and indeed, We would be its guardian"*. Hence, it is agreed from all Islamic senior scholars that Al-Qur'an is the principle for those who have faith to Allah.

There were some authors that define Islamic law in general terminology whereas Islamic law was applied as the core principle toward any Islamic business activities. Abu-Tapanjeh (2009) in Garas & Pierce (2010) explained that Islamic law was a fundamental law that was inferred based on Al-Qur'an and Sunnah and one of the focuses was involving the scope of economy with additional of moral values embedded. The essential of Islamic law was that every asset in business

was just a test of faith and they are given because of the mercy of Allah *subhanahu wata'ala* as stated by Saeed (1996). Meanwhile, it also stated by Haque (1999) that fairness and honesty became a virtue of Islamic business which means exploitation was prohibited. Additionally, according to Chapra & Ahmed (2002) greater transparency and accountability must be applied to achieve fairness as a definition of Islamic business.

Ayub, (2007) argued that the variables that one should identify first in order to have Islamic business was prohibitions as stated in Al-Qur'an. In this regard, the prohibition of *Riba* commonly known as interest in conventional bank, *Gharar* or commonly known in conventional when the price of goods or services offered were extremely excessive, *Maysir* or commonly known as gambling were the highlighted prohibitions in Islamic principles. Hence, these were the prohibitions as stated in Al-Qur'an for Islamic finance policymakers and practitioners that should put attention on it. The reason behind one should identify the prohibitions instead of permission was that in Islam, if muslims need to interacts with people, they should look toward the *Dalil* or *Hujjah* or verified references derived from Al-Qur'an and Sunnah on which activities were prohibited. Because in Islamic nature, people were free in doing whatever activities they wanted to and the only limit was the prohibitions that was commanded by Allah *subhanahu wa ta'ala*. Meanwhile, when it comes to *Ibadah* or an act of worshipping toward Allah in hope of reward as a return to be ones benefit, all activities were prohibited until there was *Dalil* or *Hujjah* from the commandment of Allah as stated in Al-Qur'an from prophet Muhammad *shallallhu'alaihi wa'ala alihi wa ashabih*, from the understandings of the fellows of prophet Muhammad *shallallahu'alaihi wa sallam*, and the next two generations

from the fellow of prophet Muhammad *shallallahu'alaihi wa sallam* as well as the trusted Islamic senior scholars who lived today in interpreting the *Dalil* and *Hujjah*.

When it comes to Islamic finance, it means an interaction between one party with another. Therefore, anything was free to do, until there was *Dalil* of prohibitions to limit the interactions. Now there were 9 verses stated in Al-Qur'an that warn mankind about *Riba*. Surah Ar-Rum verse 39 stated that *"That which you give as Riba to increase the people's wealth increases not with God; but that which you give charity, seeking the goodwill of God, multiplies manifold'*. Other verses related to that such as Surah An-Nisa verse 161, Surah Al-Imran verse 130, Surah Al-Baqarah verse 275-281. All of the verses were explicitly uplift the prohibitions of *Riba.* Based on those verses, it was known that indulging in *Riba*-based transactions was tantamount to being at war with Allah *subhanahu wata'ala* and His Messenger, Muhammad *shollallahu'alaihi wa sallam*. Not only the lenders but also borowers and other parties involved commit sin by paying interest or by giving a helping hand in interest-based business. Hence, what was *Riba* especially in the extent of financing service?

According to Askari, Iqbal, & Mirakhor (2010), *Riba* means a sum of money loaned today for larger sum in the future without the transfer of the property rights over the principle from the lender to the borrower. The rationale behind why *Riba* was prohibited was quoted by Allama Yusuf Ali in Askari, Iqbal, & Mirakhor (2010), the eminent translator of the Al-Qur'an into English. He stated : "Whereas legitimate trade or industry increases the prosperity and stability of men and nations, dependence over usury would merely encourage a race of idlers, cruel bloodsuckers and worthless fellows who do not know their

own good and therefore were akin to madmen". Any rate above zero would lead to exploitation in the long run, as can be witnessed in the case of developing countries where all economic problems happen to be the direct result of an interest-based system – low levels of savings, heavy budgetary deficits, inflation along with recession, high debt servicing and unemployment. What was considered a reasonable rate today may be regarded as usurious tomorrow. And what may be usurious today, may be treated as just interest tomorrow because of the inflation rate prevailing in an economy. The distinction between interest and usury was made just to deceive mankind and to allow the same old robbery in a more presentable form.

However, according to the agreement of many senior Islamic scholars, there were several form of transactions in Islamic finance that was permissible. In case of sale or *Bai'*, the ownership of the goods being sold was transferred to the buyer just at the time the sale was performed. It makes no difference whether the payment of price was on the spot or deferred or advanced. This ownership transfer was against on-the-spot or credit payment that may also involve a profit margin for the seller. In case of forward sale or *Salam*, the goods have to be transferred at stipulated time, both parties were agreed to give or take ownership at a specified time on agreed terms, irrespective of whether the price rises or falls at the time of delivery. If the case was a gift or *Hibah*, ownership of asset would be transfered there and free of any payment. In case of loans in Islamic finance, the goods were temporary transferred toward debtor and the price of the goods was agreed between both parties as well as the profit mark ups without any interest charges. Therefore, there was no *Riba* in this case. In conventional, the form of loans was similar with Islamic but the different was that it was charged with interest in the

transaction, therefore it was prohibited. In case of *Ijarah*, the leased asset was not transfered and only the usufruct of asset was made available to the lessee against the payment of rent. As ownership remains with the lessor, he was entitled to rental and was also liable for expenses related to ownership and loss of the asset, if any. However, anything which cannot be used without consuming its corpus or changes its shape while in the process of its use cannot be leased out includes yarn, money, edibles, fuel, etc. Therefore in Islamic finance, taking rent on leasing of assets like houses, vehicles, etc. was permissible while charging rent on money was prohibited.

According to Ahmed (2006), there were many differences that lies on conventional banking and Islamic banking. The first difference was interest rate-based for depositors and borrowers allowed in conventional banking while in *Sharia*, it was prohibited for bankers and customers from agreeing fixed interest rate in advance. A conventional bank takes deposits from its customers and pays them a rate of interest fixed in advance. Then, the money was loaned to businesses in return for an interest which was also fixed in advance. The whole cycle was based on lending money on interest fixed in advance. Islamic banks cannot be invested in fixed-income instruments for the purpose of managing treasury nor can they rely on a lender of last resort in times of stress, as the latter usually rely on interest-based instruments to manage liquidity in the banking system.

Second difference was conventional bank can advance money for manufacturing alcohol or building a casino which was prohibited in *Sharia*. A conventional bank was concerned about the security of its loan than about what it was used for. An Islamic bank lends funds for business, enter into risk-sharing contracts with borrowers and the return was based on the outcome of the venture

instead of on an arbitrarily predetermined rate. The borrowers must provide much more information about their venture allowing the Islamic banks to assess better their credit-worthiness than by relying on guarantees and collateral in conventional banking system.

Thirdly, there was difference of attitude between conventional and Islamic banking toward financing businesses of their customers. Islamic banks were equity-based whereas the conventional banks were loan-based. Islamic bank relies on profit sharing rather than interest; it pays more attention to the day-to-day operation of business of its customers than conventional banks. While conventional banks, it was only interested in interests from its debtors and did not feel any responsibility in providing appropriate financial guidance for maximizing profits in which it did not have any right to share. On the other hand, Islamic bank had a direct interest in encouraging good managerial practices in the business of its customers. Conventional banks put too much emphasis on security and guarantees in financing.

Lastly, an Islamic bank must have *Sharia* board consisting of well-versed Muslim scholars who scrutinize all transactions and financial instruments for compliance with *Sharia*. If necessary, such scholars do not approve investment proposals on the grounds of their incompatibility with *Sharia*. Unless the *Sharia* Board gives clearance, the management of a financial institution cannot approve any proposal for investments. A *Sharia* Board provides guidance for the bank's practices and also advises on the management's adherence to high standards of ethical, social and *Sharia* commitments. The Islamic banks implement a purification process to free their income from interest which may come through the banking environment in which they operate. Interests earned from deposits in

interest-based banks were donated to charity, for example in Bahrain in 2000, Bahrain Islamic Bank gave BD 1 million for charity. As no obligation may be discharged from interests earned, so they may not be used to pay taxes or debts.

According to the fact of last decades, Islamic principles of economic and finance have already proved their ability to attract policymakers and practitioners around the world to develop the edifice of an efficient financial system. From 21st century, Islamic finance had been turned vigorously from nascent industry to global markets, where Muslim and non-Muslim were working together and learning from each other to develop relevant products and services. Islamic finance was also recognized from many institutions including Federal Reserve Board, FSA of England, IMF, World Bank, a prestigious center of learning such as Harvard and Rice University, London School of Economics, Loughborough and Durham Universities in Britain, International Islamic University in Malaysia and Pakistan and others in the Kingdom of Saudi Arabia and Egypt (Ayub, 2007).

However, there were some global economic issue in previous decades that attracted policymakers. The issues were unchecked creation of money, a reliance on market forces without any ethical limits, an emphasis on growth and profit without regard to the distribution aspect, the negative role of the State and the regulators in allowing the pursuit of greed and unchecked profit. The Islamic principles of economic and finance provide checks above all the issues. Since they focus on clarity and lack of ambiguity, just and fair treatment for all and care for the rights of others. According to policymakers, these principles needed to be developed for the relief of mankind.

Based on the explanation above, the researcher referred to Rivai, Veithzal, & Idroes (2007) in elaborating the *Sharia* banking definition. According to them,

Sharia bank is a banking institution that render services according to Islamic law, which are the agreements that is as accordance to Islamic law between the bank and external party for fund deposit or finance, or any activities that is accordance and expressed to Islamic law.

There are three categories of *Sharia* bank according to Rivai, Veithzal, & Idroes, (2007) which are Islamic full-fledged bank, Islamic window bank and Islamic rural bank. Islamic full-fledged bank is a bank that is operated under the principle referred to Islamic law in which within the operation, the activities of the bank is to render service in payment. It is similar with conventional bank in term of legal types in limited liability company (LLC), local company or coperation. Islamic full-fledged bank also has foreign exchange bank and non-foreign exchange bank. Meanwhile, Islamic window bank is a bank that is under the director instruction of conventional bank. It is also able to operate as foreign exchange bank and non-foreign exchange bank. The special job description for the bank is to manage and monitor all of the *Sharia* branches, to assess treasury function in managing and allocating funds from *Sharia* branch, to prepare consolidated financial report from all of *Sharia* branches and to adminstrate financial report of *Sharia* branch. On the other hand, Islamic rural bank is similar with the others with an exception of not rendering payment type service. Overall, Islamic rural bank is similar with conventional rural bank in legal form of limited liability company, local company or coperation.

In this scope of research, the researcher only examine both Islamic full-fledged bank and Islamic window bank due to the abundanceness of sample and the limitted time to process the data if the Islamic rural bank was also inputted to

the research. For this reasen, the researcher omitted the category of Islamic rural bank.

2.3 Stewardship Theory

According to Donaldson & Davis (1991), in Stewardship Theory, organizational role-holders were being motivated to achieve the organisational goal, to gain instrinsic satisfaction through successfully performing challenging work, to exercise responsibility and authority, and thereby to gain recognition from peers and bosses. Thus, there were non-financial motivators, such as recognition from managers with the corporations, especially when they have worked for long period, promotes merging individual ego with corporation's goal and thus, melding individul self-esteem with corporate prestige.

Moreover, the executives in stewardship theory, which then be called as a steward, were essentially wants to do a good performance as a steward of the corporation. Additionally, stewardship theory holds variations of performance from any specific field facilities that was provided to steward in order to achieve effective action of planning over the corporation to exert better performance.

On the other hand, according to Glinkowska & Kaczmarek (2015), stewardship theory was based on manager's behavior. It stated that the key of motivating factors was how the job was well done, stimulates psychological needs such as progress, achievements and self-actualization. Therefore their behavior was pro-organizational. Thus, it was aligned with organization's interests. Meanwhile, the situational factors in this theory were trust, engagement, and collectivism.

According to Riyadi & Yulianto (2014), Stewardship Theory was a situation where managers were not motivated by individual ego instead of

organizational interest. Hence, this theory had psychological and sociological basis established where executives as a steward were motivated to perform as principal's instruction. Additionally, steward always exert to organization's interests and therefore, steward cannot abandon it.

According to Budi (2009), Stewardship Theory indicated the relationship between the principal or shareholder and manager. This theory assumes that the personal interest between principal and manager were aligned through corporation's goal. If there were goal differences between principal and manager, manager would prioritize fellowship value in order to achieve firm's goal noted that, manager in Budi's (2009) paper was similar with Stewardship Theory.

In this paper, the researcher applied Stewardship Theory and enrolled Islamic banking as the steward while bank's client as principal. Principal trust steward to manage their funds that ideally able to accommodate mutual goals. Stewardship theory also prioritizing service that easily adjusted to be cooperative in the organization.

2.4 Keynes' General Theory

According to Keynes in Bas (2011), there was a relationship between income and consumption in which individuals with high income tends to consume a lesser proportion of income, a *vice versa* on individuals with low income. Thus, in macro level, an individual with growing income tend to increase its saving. While according to Sukirno in Sahara (2013), the increase of saving did not depend fully on interest rate, it rather depends on the individual's income. To relate this with the research, Islamic banking endorse financing without interest, hence when there was a deposit and it had to be lent to customer, Islamic banking obtain a certain level of percentage of customer's payment. Thus, the greater the

loan toward customers, the greater the income that it would get. Therefore, the profitability of Islamic banking would increase.

2.5 Hypothesis Formulation

2.5.1 Internal Factors Hypothesis

2.5.1.1 Deposit Ratio

According to Muda et al. (2013), DR (deposit ratio) can be measured by total deposit divided by total asset. Total deposits were obtained from customer and deposits from banks and other financial institutions as a percentage of total assets. It also stated that deposits ratio was considered to be the main source of bank funding and expected a return toward its borrower. Thus, it influenced bank's profitability. Moreover on prior studies, deposit to total asset ratio was agreed to possess a positive and significant influence on ROA as stated by Muda et al. (2013) and Siddique et al. (2012). It was also agreed by the bank's theory of profitability where management had to manage the controllable area in order to achieve bank's profitability. Moreover, according to Muda, Shaharuddin, & Embaya (2013), the deposits of the banks were considered the main source of bank funding. Hence, it had a positive impact on the profitability of the banks. Therefore, Muda, Shaharuddin, & Embaya (2013) hypothesized that DR had positive and significant influence toward ROE. In addition, Khan, Ijaz, & Aslam (2014) also shared similar hypothesis with different dependent variables which was ROA and EPS. Thus, the hypothesis were generated as follow:

H0 1: There is insignificant influence on deposit ratio toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 1: There is positive and significant influence on deposit ratio toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 2: There is insignificant influence on deposit ratio toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 2: There is positive and significant influence on deposit ratio toward profitability of Islamic full-fledged bank and Islamic window bank in Malaysia.

2.5.1.2 Financial Leverage

Debt to total asset ratio was categorized as leverage ratio. Leverage ratio was a formula to show the company's effort to fulfill long term and short term debt by utilizing its assets (Utami & Pardanawati, 2016). According to Waemustafa & Sukri (2016), the synchronization of debt and asset was required to be fulfilled in order to reserve the bank's financing to the customer, which then leads into the increases of profitability. According to Zarrouk, Ben Jedidia, & Moualhi (2016), a bank that had high liabilities to total asset would suffer from high insolvency risk since the bank did not have comprehensive prediction over customer that was able to pay or fulfill the debt. Thus, it would likely to decrease bank's profitability. DTA was aligned with theory of profitability whereas deposit management was in the scope of the manager to pursue bank's objective. The hypothesis were as follow:

H0 3: There is insignificant influence on financial leverage toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 3: There is negative and significant influence on financial leverage with profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 4: There is insignificant influence on financial leverage toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 4: There is negative and significant influence on financial leverage toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.5.1.3 Liquidity Ratios

According to Abdillah, Hosen, & Muhari (2016), liquidity was the ability of the bank to utilize its asset to meet its obligations which were due. An excess of liquid asset could decrease profitability, while a shortage of liquid asset would stress the bank to meet its obligation which were due. The proxy of liquidity was current ratio.

The second variable for liquidity beside current ratio was quick ratio as agreed with Ahmad (2016). Additionally, quick ratio data was presented in almost every research samples. According to Nimer, Warrad, & Omari (2013), QR was more conservative than CR because it includes marketable securities and account receivables which produces reliable outcome of liquidity ratio. QR reflects the current liabilities which were able to generate current asset. The example of current liabilities was a loan of less than a year, while current asset were cash and cash equivalents, marketable securities that were available for public and had less than a year of Islamic loan return.

The third variable of liquidity proxy was Finance to Deposit Ratio (FDR). FDR was measured by total financing divided with total deposit from customer, other banks and institutions. According to Riyadi & Yulianto (2014), the purpose of FDR was to measure the ability of the bank to finance its customer or borrower and also measure the effectiveness in financing. If the percentage was at an extreme high and low position, it showed that the bank did not perform effectively in respect with financing activities. FDR was alligned with the theory of profitability whereas the management of deposit and financing was in the scope of manager to pursue the bank's goal. It also follow the Stewardship Theory, where customer and manager cooperate collectively to achieve mutual benefit among

each positions. In some situations, customer had demand of deposit for future benefit. On the bank's side, the bank provide services to fulfill the demand of customer.

Based on these three proxies, the preference of the researcher in generating the hypothesis were as follow:

H0 5: There is insignificant influence on liquidity ratios toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 5: There is positive and significant influence on liquidity ratios toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 6: There is insignificant influence on liquidity ratios toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 6: There is positive and significant influence on liquidity ratios toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.5.1.4 Non-Performing Financing/Impaired Financing

According to Djuwita et al. (2016) non-performing financing was an unpaid credit provided for the debtor. While according to Purnomo (2015), NPF was a level of an unpaid credit that had burden to the bank. The lesser the NPF the higher the profitability achieved by the bank. Such expectation was consistently agreed by Ma'isyah & Mawardi (2015); Mawaddah (2015); and Hassene & Kais (2016). In Malaysia, other terminology for non-performing financing/loan was impaired financing/loan. Most of the banks in Indonesia and Malaysia were providing the NPF ratio in statements of financial position. Some of them were not provided in statements of financial position yet they were available in the notes of financial statement in financing section. Thus, the hypothesis were generated as follow:

H0 7: There is insignificant influence on non-performing financing toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 7: There is negative and significant influence on current ratio toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 8: There is insignificant influence on non-performing financing toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 8: There is negative and significant influence on non-performing financing toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.5.1.5 Sharia Supervisory Board

According to Septiputri & Mutmainah (2013), *Sharia* Supervisory Board (SSB) was a board that monitor bank activities in compliance with *Islamic* principle. As stated by Bank Indonesia (2009), the higher the number of the board, the better the management monitoring mechanism of the firm. Further definition explained by Gebba & Aboelmaged (2016), SSB had responsible on reviewing the decision prepared by board of directors and the top management approve all article of code of ethics and code of conducts, authorize transactions in order to ensure the compliance with *Islamic* law, appoint *Islamic* internal auditor to audit day-to-day transactions and directly report to them, advise and consult with external parties where they have influence as decision makers within the organization. Despite the responsibility, it was expected that the broader the size of *Islamic* Supervisory Board, the better the bank governance that complied with the *Islamic* principle. Thus, the misuse of fund optimization which contradicts with the *Islamic* principle may reduce the profitability. Such research result supported by Mollah & Zaman (2015) found that SSB had positive and significant relationship toward ROA and ROE.

In other condition, if SSB number was increased, the number of *haraam* form of transaction that the bank would have got would be reduced. Since the SSB member was more than before, the verification of individual transactions would be toughen. This effect was not only applied for the number of members, but also their education. If their degree increases, therefore their insight of circumstances toward the bank increases as well. Thus, they may overcome any transaction that was in contradiction with Islamic law. It means that when SSB number and education increases, profitability decreases. Therefore, SSB Score influence negatively toward ROA. The researcher tended to prefer the negative impact toward ROA since it was most relevant with previous literatures.

SSB variable was referred to Rahman & Bukair (2013) which was categorized as dummy variable because of its unique measurement to determine the SSB variables. There were a total of 4 measurements which were SSB number, level of education, reputation and cross-membership.

Firstly, SSB member was measured by identifying the total of SSB members in each of Islamic bank stated in annual report. The bank that had 5 or more SSB members would be scored 1(One) while bank that had less than 5 would be scored 0 (Zero). The higher the number of members, the greater the score of SSB.

Secondly, level of education would be valued by 1 for each SSB member who had doctorate qualification or higher. On the other hand, the SSB member who had master, bachelor and diploma qualification would be valued by 0.

Reputation valuation would be valued by 1 for each of SSB member who had affiliation toward at least AAOIFI, international Islamic organization, and governmental bodies that support Islamic economic development. SSB member

who had no experience in affiliation with the mentioned bodies would be valued by 0.

Lastly, cross-memberships would be measured by 1 for SSB member who had membership(s) toward external institution. The member who had no membership toward external institution would be valued by 0. The hypotheses were as follow:

H0 9: There is insignificant influence on Sharia Supervisory Board score toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 9: There is negative and significant influence on Sharia Supervisory Board score toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 10: There is insignificant influence on Sharia Supervisory Board score toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 10: There is negative and significant influence on Sharia Supervisory Board score toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.5.2 External Factor Hypothesis

2.5.2.1 Inflation

According to Zarrouk et al. (2016), inflation was an instrument to measures overall percentage on consumer price index of goods and services. According to Purnomo (2015), inflation rates usually affects *murabahah* financing. He stated as well that inflation rate did not affect the amount of finance provided to the borrower since it was determined in the agreement or *aqd*. According to Wibowo & Syaichu (2013), the increase of inflation was a bad

signal for investor which leads to the decreases toward profitability and also dividend. However in Malaysia region, according to Wasiuzzaman & Tarmizi (2010), inflation have positive influence toward profitability because if income increases more than costs, inflation would have positive impact on profits, but it would produce inverse relationship if costs increase more than income did. In other studies, the increase of inflation rates would devalue a bank since consumer would withdraw more money to fulfill the needs of the increased price of goods and services (Wibowo & Syaichu 2013). The effect of such event, the bank would have lesser reserves to cover the loss or loans which would likely be riskier toward the bank's profitability. Therefore, the researcher hypothesized inflation influence inversely toward ROA. The hypotheses of inflation were as follow:

H0 11: There is insignificant influence on inflation toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 11: There is negative and significant influence on inflation toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 12: There is insignificant influence on inflation toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 12: There is negative and significant influence on inflation toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.5.2.2 Annual GDP Growth

Economic growth was the total national output of a country. It reflects the condition of the economy in the way that growing economy influence growing demand for banking services. The proxy of economic growth was GDP growth. According to Muda, Shaharuddin, & Embaya (2013), GDP growth had positive influence toward bank's profitability. According to Sukirno in Wibowo & Syaichu

(2013), GDP growth influence banking profitability since GDP growth also support consumer income. The higher the income, the higher their intention to save their money which would increase the deposit of bank. Thus, that the bank was able to give loans which would lead to the induce of return on asset. Such analogy was included as well in Keynes's General Theory. The hypotheses of Economic Growth were as follow:

H0 13: There is insignificant influence on gross domestic product growth toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

Ha 13: There is positive and significant influence on gross domestic product growth toward profitability of Islamic full-fledged and Islamic window bank in Indonesia.

H0 14: There is insignificant influence on gross domestic product growth toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

Ha 14: There is positive and significant influence on gross domestic product growth toward profitability of Islamic full-fledged and Islamic window bank in Malaysia.

2.6 Previous Study

This sub-chapter explained about the previous studies that the researcher used as reference. Most of the references were taken from Proquest, SSRN and Portal Garuda. The keywords of the previous studies were Islamic banking and profitability. The countries involved were mostly Indonesia, Malaysia, Middle-Eastern and North-Africa.

Based on the previous studies, it had shown that the most used dependent variable for Islamic banking researches was profitability. There were some previous researchers that used return on asset as their profitability proxy in their research on Islamic bank such as Sahara (2013); Riyad & Yulianto (2014); Wibowo & Syaichu (2013); Ma'isyah & Mawardi (2015); Widokartiko, Achsani and Beik (2016); Mawaddah (2015); Siddique, Khaleequzzaman and Rehman (2016); and Utami & Pardanawa (2016). Meanwhile, there were also some researchers that used return on equity as their proxy of profitability such as Septiputri & Muthmainah (2013); Muda, Shaharuddin, and Embaya (2013); and Mollah and Zaman (2015). Lastly, there were some researchers that used two measurements for profitability proxy, which was return on equity and return on asset. The researchers were Mokni & Rachdi (2014); Zarrouk, Jedidia and Moualhi (2015); Trad, Trabelsi, and Goux (2016); and Ramlan & Adnan (2016). There was also one literature that used three measurements which were return on equity, return on asset and operational efficiency which was done by Hassene & Kais (2016), and for return on asset, return on equity and earning per share which was conducted by Khan, Ijaz, & Aslam (2014).

There was one dependent variable that was omitted by the researcher due to the data that was unavailable such as equity for return on equity. In Indonesia

Islamic window bank, the equity for all the banks were not provided in the financial report; thus, the researcher omitted it. Meanwhile, there were some independent variables that the researchers omitted due to the consistency over year. Hence, the researcher took independent variables that were still inconsistent with previous researchers in order to reexamine the variables. The dependent variables that was omitted was BI Interest rate due to interest rate which was prohibited as explained before such as Market Share, Interest Rate, Capital Adequacy Ratio, Operational expense to Operational income, Commissionner Board Size, Independent Commissionners Proportion, Auditor Reputation, Operational Efficiency, Bank Capital, Credit Risk, Asset Quality and Net Interest Margin.

The researcher used the Deposit Ratio; Debt to Total Asset which would be the proxy of Financial Leverage; Current Ratio, Quick Ratio and Finance to Deposit Ratio which take role as the proxy of Liquidity; Non-Performing Financing; Log *Sharia* Supervisory Board Size which was the summed of SSB Member Size, SSB Education Level, SSB Reputation and SSB Cross-Memberships; Inflation; and Gross Domestic Product Growth Rate.

Table 2.1

List of Previous Studies

No	Research Title and Researcher	Independent Variables	Dependent Variables	Results
1	Analisis Pengaruh Inflasi, Suku	Inflasi; Gross Domestic	Return on Asset	Inflation and GDP had positive and

	Bunga BI, Dan Produk Domestik Bruto Terhadap *Return On Asset* (Roa) Bank Syariah Di Indonesia (Sahara, 2013)	Product, BI Interest Rate		significant influence on ROA; BI Interest rate had negative and significant influence on ROA
2	Determinants of Profitability of Islamic Banking Industry: An Evidence from Pakistan (Khan, Ijaz, & Aslam, 2014)	Size, Gearing Ratio, Asset Management, Deposit Ratio, Non-Performing Financing, Asset Composition, CAR, Efficiency, CPI, GDP	Return on Asset, Return on Equity, Earning per Share.	Gearing Ratio, NPL Ratio, Asset Management, CAR, and Efficiency influence positive significance on ROA; Deposit Ratio and CPI had negative and significant influence on ROA.
3	Pengaruh Pembiayaan Bagi Hasil, Pembiayaan Jual Beli,	Profit Sharing; Trading; Financing to Deposit Ratio;	Return on Asset	Financing to Deposit Ratio had positive and significant

	Financing To Deposit Ratio (Fdr) Dan Non Performing Financing (Npf) Terhadap Profitabilitas Bank Umum Syariah Di Indonesia (Riyadi & Yulianto, 2014)	Non-Performing Financing		influence on ROA; Profit Sharing had negative and significant influence on ROA
4	Analisis Pengaruh Suku Bunga, Inflasi, CAR, BOPO, NPF Terhadap Profitabilitas Bank Syariah (Wibowo & Syaichu, 2013)	Capital Adequacy Ratio; Operational Cost on Operational Income; Non-Performing Financing; Inflation; Interest Rate	Return on Asset	Operational Efficiency had negative and significant influence on Return on Asset
5	Dampak Corporate Governance Terhadap Profitablitas Perbankan Syariah	Director Board Size; Commissionner Board Size; Independent	Return on Equity	SSB size and Auditor reputation had negative and significant influence on ROE,

	Indonesia Tahun 2007-2010 (Septiputri & Muthmainah, 2013)	Commissionners Proportion; SSB Size; Auditor Reputation; Bank Size		Director Board Size and Independent Commissioners Proportion had positive and significant influence on ROE
6	Pengaruh Kecukupan Modal, Fungsi Intermediasi, Efisiensi Operasional, dan Pembiayaan Bermasalah terhadap Profitabilitas (Ma'isyah & Mawardi 2015)	Capital Adequacy Ratio; Financing to Deposit Ratio; Operational Efficiency; Non-Performing Financing	Return on Asset	CAR, Operational Efficiency and NPF have negative and significant influence on Return on Asset
7	Pengaruh Likuiditas, Solvabilitas, dan Manajemen Asset Terhadap Kinerja	Current Ratio, Financial Leverage, Asset Management.	Return on Asset	Current Ratio and Asset Management influence significantly and

	Keuangan Pada Perusahaan Go Publik yang Terdaftar Dalam Kompas 100 di Indonesia (Utami, & Pardanawati, 2016)			positively on ROA, Financial Leverage had insignificant influence on ROA
8	Assessing the Bank Profitability in the MENA Region: A Comparative Analysis Between Conventional and Islamic Bank (Mokni & Rachdi, 2014)	Bank Capital; Operational Efficiency Bank Size; Non-Performing Financing; Credit Risk; Liquidity Risk; Interest Rate Risk; Bank Age; Merger and Acquisition; Bank Age; Real GDP Growth; Inflation Expectation	Return on Equity and Return on Asset	Liquidity had positive and significant influence on ROA and ROE; NPF, Off balance sheet and Operational Efficiency had negative and significant influence on ROA and ROE
9	Is Islamic bank	Liquidity; Risk	Return on	Liquidity, Capital

	profitability driven by same forces as conventional banks? (Zarrouk, Jedidia & Moualhi, 2015)	and Solvency; Efficiency; Asset Quality; Capital (TETA); Operations; Annual Stock Data; GDP; Inflation	Equity and Return on Asset	ratio, NPF, GDP, GDP Investment had positive and significant influence on ROE and ROA; Asset quality, Operational efficiency, Inflation, Annual stock data had negative and significant influence on ROE and ROA
10	Risk and Profitability of Islamic bank: A Religious deception as an alternative solution (Trad, Trabelsi, Goux 2016)	Specific Internal Bank: Bank Size, Capitalization TETA, Liquidity and Asset Quality; Specific External Country: Real GDP, Inflation and Official	Return on Equity and Return on Asset	Bank size, Capital ratio, CAR, Liduid Asset to deposit, short-term financing rate, Liquid asset to total asset had positive and significant influence on ROE

		Exchange Rate.		and ROA; Credit Risk, Net loans to Total asset, Loan loss provision to net interest income, Inflation had negative and significant influence on ROE and ROA
11	The Profitability of Islamic and Conventional Bank: Case Study in Malaysia (Ramlan & Adnan, 2016)	Total Equity to Total Asset; Total Loan to Total Asset; Deposit to Total Asset.	Return on Asset; Return on Equity	Total equity to Total asset had negative influence on ROE and ROA.
12	Dampak Kinerja Internal dan Kondisi Makroekonomi Terhadap Profitabilitas Pada Perbankan (Widokartiko,	Non-Performing Financing; Capital Adequacy Ratio; Financing to Deposit Ratio; Operating Expense to Operating	Return on Asset	Exchange rate, Oil price, NPF and Inflation had positive and significant influence on ROA; BI interest rate had negative

	Achsani & Beik, 2016)	Income; Inflation; GDP; BI Rate; Oil Price; Exchange Rate		and significant influence on ROA.
13	Faktor-Faktor yang Mempengaruhi Profitabilitas Bank Syariah (Mawaddah, 2015)	Net Interest Margin, Financing, NPF	Return on Asset	Net Interest Margin had positive influence on ROA; Financing and NPF had negative influence on ROA.
14	Comparative Analysis of Profitability Determinants of Domestic and Foreign Islamic Banks in Malaysia (Muda, Shaharuddin, & Embaya, 2013)	Overhead Expense Rate; Financing Rate; Technical Efficiency; GDP Growth; GDP Per Capita; Bank Size; Deposits to Total Asset; Capital & Reserves; Inflation; Bank Age; Global	Return on Equity	Deposit to total asset, GDP, CAR and Bank size had positive and significant influence on ROE; Global Financial Crisis had negative and significant influence on ROE.

		Financial Crisis; Concentration Rate		
15	Determinants of Islamic Banking Industry's Profitability in Pakistan for the Period 2004-2012 (Siddique, Khaleequzzaman, Rehman, 2016)	total asset (bank size), expense to total asset, capital ratio, deposit to total asset, number of branches, interest rate, inflation	Return on Asset	Capital ratio, deposit to total asset, number of branches, interest rate had positive and significant influence on ROA; bank size and expense to total asset had negative and significant influence on ROA
16	The Performance of Islamic and Conventional Banks in Malaysia Considering Crisis Period (Hassene & Kais, 2016)	Total asset; bank age; capital adequacy; financing to total asset; financing to total deposits; islamic income /islamic income + non-islamic	Return on Asset, Return on Equity, Operational Efficiency	CAR had positive and significant influence on ROE, debt ratio and bank age had positive and significant influence on operational

		income		efficiency; Bank size and NPF had negative and significant influence on ROE, ROA, and operational efficiency.
17	Pengaruh Struktur Pasar Terhadap Profitabilitas Perbankan Syariah Di Indonesia (Yuhanah, 2016)	Market share; Operational efficiency; Non-performing financing; GDP Growth; Capital adequacy ratio	Return on Asset	Operational efficiency and NPF had negative and significant influence on ROA
18	Sharia supervision, corporate governance and performance: Conventional vs. Islamic banks (Mollah & Zaman, 2015)	Sharia Supervisory Board, CEO power, Board structure	Return on Asset, Return on Equity	Sharia Supervisory Board had positive and significant influence on ROA and ROE.

CHAPTER III

RESEARCH METHOD

3.1 Population

According to Riyadi & Yulianto (2014), in 2012 the inclining Islamic financing performance in Indonesia had positive implication on financing development in Indonesia especially Islamic financing. Statistically issued by Bank Indonesia regarding with Islamic financing on 2012, the service volumes of Islamic financing over total asset and financing indicated an increase. Meanwhile, according to Sahara (2013) monetary crises that occurred in 1998 induced conventional bank to do liquidation which was caused by the disabilities to perform the obligation toward borrowers in respect of high interest policy during the occurrence of the crises which was in contrast with Islamic bank. If in 1998 there was only one Islamic bank and 76 Islamic rural banks, hence on December 2009 statistically accordance with the data provided by Bank Indonesia about Islamic financing, the amount of Islamic bank reached 31 units that consist of 6 Islamic banks and 25 Islamic window banks. While according to Wibowo & Syaichu (2013), the International Monetary Funds (IMF) predicted that there would be a deceleration of global economic growth from 3.9% in 2008 to 2.2% in 2009. Such deceleration did not affect Islamic banking whereas it emphasized only in domestic economic activities which did not enroll immensely in global economic activities. Meanwhile, in 2010 the top largest Muslim populated countries were Indonesia for possessing 209,120,000 Muslims (“10 Countries with the Largest Muslim Populations, 2010 and 2015", 2015). Hence, based on those data, it was eligible to conduct research incorporating Indonesia as the sample.

According to Muda et al. (2013), as the second country Malaysia represents the first country to implement a dual banking where Islamic banking operates with conventional banking system. According to Muhammad Muda & Jalil (2007), the dual financial system had proven to be more competitive and refined. Hence, it attracted customer's preference and gained popularity. Additionally, in 1990, foreign banks brought in more capital to the economy but also brought along the expertise and culture that accumulate the competitiveness of the industry. While according to Kaleem (1999) and Lo & Leow (2014), the decision to make dual financial system or Islamic window had compelled banking industry in Malaysia to become more competitive as a way to improve and increase the productivity of banking operations. Hence, it was suitable to conduct research incorporating Malaysia as a country sample based on the immenseness of the development of Islamic banking. Therefore, the population included was Islamic Banking in Indonesia and Malaysia.

3.2 Samples

Table 3.1

List of Indonesia Islamic Banks

No	Name	Categories
1	PT. Bank Muamalat Indonesia	Full-Fledge Bank
2	PT. Bank Victoria Syariah	Full-Fledge Bank
3	PT. Bank BRI Syariah	Full-Fledge Bank
4	PT. Bank Jabar Banten Syariah	Full-Fledge Bank
5	PT. Bank BNI Syariah	Full-Fledge Bank
6	PT. Bank Syariah Mandiri	Full-Fledge Bank
7	PT. Bank Mega Syariah	Full-Fledge Bank

8	PT. Bank Panin Syariah	Full-Fledge Bank
9	PT. Bank Syariah Bukopin	Full-Fledge Bank
10	PT. BCA Syariah	Full-Fledge Bank
11	PT. Maybank Syariah Indonesia	Full-Fledge Bank
12	PT. Bank Tabungan Pensiunan Nasional Syariah	Full-Fledge Bank
13	PT Bank Danamon Indonesia, Tbk	Islamic Window
14	PT Bank Permata, Tbk	Islamic Window
15	PT Bank CIMB Niaga, Tbk	Islamic Window
16	PT Bank OCBC NISP, Tbk	Islamic Window
17	PT Bank Sinarmas	Islamic Window
18	PT Bank Tabungan Negara (Persero), Tbk	Islamic Window
19	PT BPD DKI	Islamic Window
20	PT BPD Daerah Istimewa Yogyakarta	Islamic Window
21	PT BPD Jawa Tengah	Islamic Window
22	PT BPD Jawa Timur, Tbk	Islamic Window
23	PT Bank Aceh	Islamic Window
24	PT BPD Sumatera Utara	Islamic Window
25	PT BPD Sumatera Barat (Nagari)	Islamic Window
26	PT BPD Riau dan Kepulauan	Islamic Window

	Riau	
27	PT BPD Sumatera Selatan dan Bangka Belitung	Islamic Window
28	PT BPD Kalimantan Selatan	Islamic Window
29	PT BPD Kalimantan Barat	Islamic Window
30	PT BPD Kalimantan timur	Islamic Window
31	PT BPD Sulawesi Selatan dan Sulawesi barat	Islamic Window
32	PT BPD Nusa Tenggara Barat	Islamic Window

Source: Otoritas Jasa Keuangan, 2016

Table 3.2

List of Malaysia Islamic Banks

No	Name	Categories
1	Al-Rajhi Banking & Investment Corporation Berhad	Full-Fledge Bank
2	Asian Finance Bank Berhad	Full-Fledge Bank
3	Bank Islam Malaysia Berhad	Full-Fledge Bank
4	Bank Rakyat Malaysia	Full-Fledge Bank
5	Bank Muamalat Malaysia Berhad	Full-Fledge Bank
6	Kuwait Finance House Berhad	Full-Fledge Bank
7	Affin Islamic Bank Berhad	Islamic Window
8	Alliance Islamic bank Berhad	Islamic Window
9	AM Islamic Bank Berhad	Islamic Window
10	CIMB (Bumi Putera) Islamic bank Berhad	Islamic Window
11	HSBC Amanah Malaysia Berhad	Islamic Window
12	Hong Leong Islamic bank Berhad	Islamic Window
13	Maybank Islamic Berhad	Islamic Window
14	OCBC Al-Amin Bank Berhad	Islamic Window
15	Public Islamic Bank Berhad	Islamic Window
16	RHB Islamic Bank Berhad	Islamic Window
17	Standard Chartered Saadiq Berhad	Islamic Window

Source: www.bnm.gov.my, 2016

3.3 Models for Regression panel data

Panel data was used to measure the strength of IB's profitability. Multiple regressions were used to determine ROA that was enrolled as the proxy of profitability. The models were described as follows:

$$PROF = \beta o + \beta 1X(DR) + \beta 2X(LEV) + \beta 3X(FDR) + \beta 4X(CR) + \beta 5X(QR) + \beta 4X(NPF) + \beta 6X(LogSSBS) + \beta 8X(INF) + \beta 9X(GDPG) + \varepsilon$$

Notes:

PROF = ROA as the proxy

DR = Deposit to Total Asset ratio

LEV = DBTA/Debt to Total Asset ratio

FDR = Finance to Deposit ratio

CR = Current ratio

QR = Quick ratio

NPF = Non-Performing Financing ratio

SSB = SSB member, secular education, reputation, cross-directorship

INF = Inflation rate

GDPG = Gross Domestic Product Growth Rate

3.4 Conceptual Framework

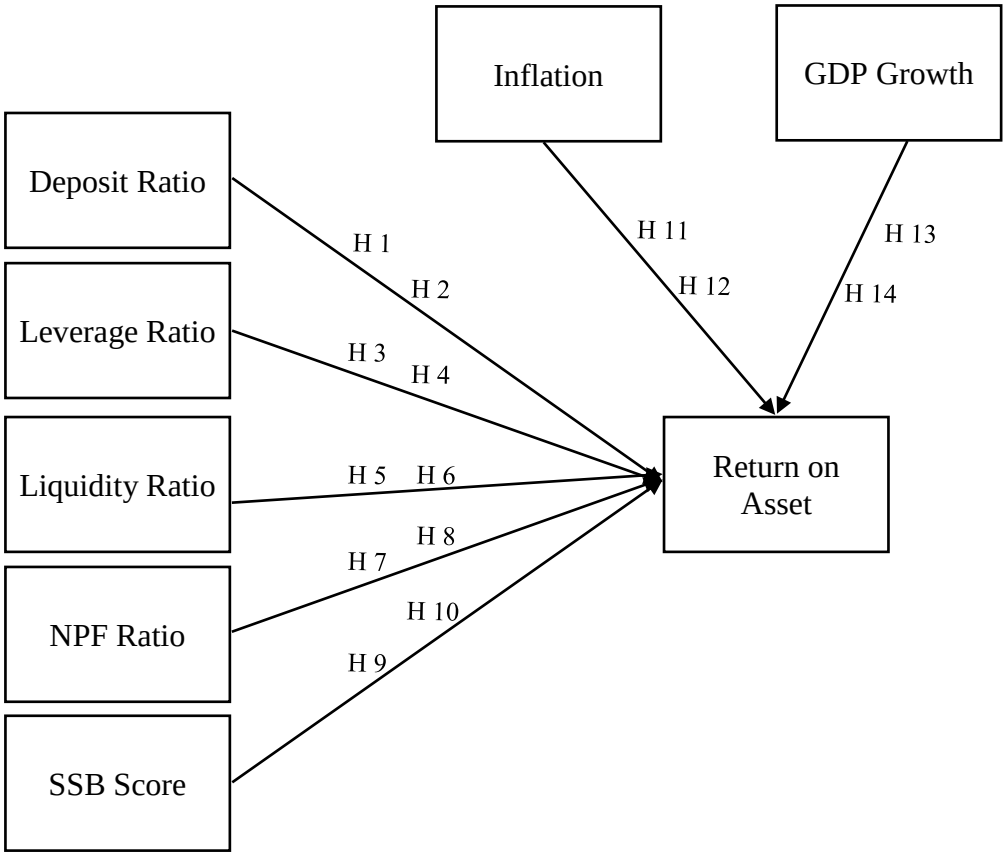


Figure 3.1. Conceptual Framework

3.5 Research Operational Variables

3.5.1 Dependent Variables

There were accordingly three methods to measure return-based profitability in Islamic banking, which were return on asset, return on equity and net profit margin. Meanwhile, there was also risk-based that also had the ability to measure profitability, the risk that used more often were insolvency risk and credit risk. The current research was proposing ROA since return-based was more traceable rather than risk-based indicators.

3.5.1.1 Return on Asset (ROA)

According to Zarrouk et al. (2016), the profitability evaluation was an important issue for bank's performance and stability as well as both investors and managers. It also offers a signal to depositors to keep or withdraw their funds. Meanwhile, according to Sahara (2013), there were two indicators to measure the performance of banking industry which was by identifying the profitability ratio as well as the efficiency. Profitability measurement that generally used was return on asset (ROA). ROA emphasize on the ability of the organization to generate earning in the operational activities. According to Riyadi & Yulianto (2014) and Farrashita (2015), the higher the ROA that the organization could generate, the greater the financing performance due to the high rate of return. Additionally, Farrashita (2015) stated that profitability also indicated the outstanding prospect that the organization would possess in the future. Thus, the greater the profitability that the bank possessed, the better the going concern it would get. Some authors that utilized ROA as the dependent variable in their Islamic banking studies were Zarrouk et al. (2016); Sahara (2013); Husnan (1992); Riyadi & Yulianto (2014); Farrashita (2015); Riyadi & Yulianto (2014); Wibowo &

Syaichu (2013); Ma'isyah & Mawardi (2015); Ben & Mokni (2014); Trad et al. (2017); Ramlan & Sharrizat (2016); Suryani (2011)Widokartiko et al. (2016); Mawaddah (2015); Hosen & Rahmawati (2016) and Siddique et al. (2012).

Based on many previous studies, usually the proxy of profitability includes ROA and ROE. As the researcher examine the samples, some equity of the Islamic bank in Indonesia were not informed in the whether the annual report, quarterly report, and financial position. Therefore, ROE in this research was omitted.

ROA can be measured as:

$$ROA = \frac{Net\ Income\ before\ tax}{Total\ Asset}$$

3.5.2 Independent Variables

According to several authors such as Anto & Wibowo (2012); Zarrouk et al. (2016); Wasiuzzaman & Tarmizi (2010); Hassan & Bashir (2000); Izhar & Asutay (2007); Riyadi & Yulianto (2014), agreed that in measuring the bank performance, there were two factors to be considered, which were bank-specific indicators and macroeconomic indicators.

3.5.2.1 Internal Factors

In internal factors, Khan, Ijaz, & Aslam (2014); Muda, Shaharuddin, & Embaya (2013) proposed deposit to total asset (D/TA) ratio. Utami & Pardanawati (2016) and Waemustafa & Sukri (2016) were used financial leverage proxied with debt to asset ratio (DB/TA). Non-performing financing (NPF) suggested by Purnomo (2015); Djuwita & Mohammad (2016); Zarrouk et al. (2016); Rahman & Rochmanika (2014); Widokartiko, Achsani, & Beik (2016). Liquidity (LQ) as utilized and suggested by Zarrouk et al. (2016); Trad et al. (2017); Ben & Mokni

(2014), would be proxied with current ratio (CR), quick ratio (QR) and finance to deposit ratio(FDR).

Additional variable referred from Septiputri & Mutmainah (2013) which was Islamic Supervisory Board (SSB). It incorporated in their research and influence significantly positive toward return on asset as a proxy of profitability. Yet, the limitation of their study was they consider only on the size of SSB. While according to Rahman & Bukair (2013), the determinants that must be inputted was the number of SSB members, cross-memberships, secular educational qualifications, and reputation.

3.5.2.1.1 Deposit Ratio

According to Muhamad Muda et al. (2013), DR (deposit ratio) can be measured by total deposit divided by total asset. Total deposits were obtained from customer and deposits from banks and other financial institutions as a percentage of total assets. It also stated that deposits ratio considered to be the main source of bank funding and expecting a return toward its borrower. Thus, it influenced bank's profitability.

Deposit to Total Asset can be measured as:

$$Deposit\ Ratio = \frac{Total\ Deposit}{Total\ Asset} \times\ 100\%$$

3.5.2.1.2 Debt to Total Asset Ratio

Debt to total asset ratio was categorized as leverage ratio. Leverage ratio was a formula to show the company's effort to fulfill long term and short term debt by utilizing its assets (Utami & Pardanawati, 2016). According to Waemustafa & Sukri (2016), the synchronization of debt and asset was required to

be fulfilled in order to reserve the bank's financing to the customer which then leads into the increases of profitability.

The followings formula was used to find debt to total asset:

$$Debt\ to\ Total\ Asset = \frac{Total\ Debt}{Total\ Asset} \times 100\%$$

3.5.2.1.3 Liquidity Ratio

According to Abdillah, Hosen, & Muhari (2016), liquidity was the ability of the bank to utilize its asset to meet its obligations due. An excess of liquid asset could decrease profitability, while a shortage of liquid asset would stress the bank to meet its obligations due. One of the three proxies of liquidity was current ratio. According to Alexander (2006), current ratio was measured with current asset divided by current liabilities.

$$CR = \frac{Current\ Assets}{Current\ Liabilities}$$

Secondly, another proxy for liquidity ratio was FDR. It was measured by total financing divided with total deposit from customer, other banks and institutions. According to Riyadi & Yulianto (2014), the purpose of FDR was to measure the ability of the bank to finance its customer or borrower and also measure the effectiveness in financing. If the percentage was at an extreme high and low position, it showed that the bank did not perform effectively in respect with financing activities. The followings was the formula on how to obtain FDR:

$$Financing\ to\ Deposit\ Ratio = \frac{Total\ Financing}{Total\ Deposit} \times 100\%$$

Lastly, another proxy for liquidity was Quick Ratio. According to Nimer, Warrad, & Omari (2013), QR was more conservative than CR because it includes marketable securities and account receivables which results reliable outcome of liquidity ratio. QR reflects the speed of current liabilities which was able to generate current asset. The example of current liabilities was a loan of less than a year, while current assets were cash and cash equivalents, marketable securities that were available for public, and less than a year of Islamic loan return. The measurement of quick ratio was referred from Ahmad (2016) and in accordance with Tracy (1999). The formula was generated as follows:

$$QR = \frac{(Cash\ and\ Cash\ Equivalents + Marketable\ Securities + Account\ Receivable)}{Current\ Liabilities}$$

3.5.2.1.4 Non-Performing Financing/Impaired Financing

According to Djuwita & Mohammad (2016), non-performing financing was an unpaid credit provided to the debtor. The measurement of NPF in accordance to Bougatef (2015) was as follows:

$$Non\ Performing\ Financing\ Ratio = \frac{Non\ Performing\ Financing}{Gross\ Financing} \times 100\%$$

3.5.2.1.5 *Sharia* Supervisory Board

According to Septiputri & Mutmainah (2013), *Sharia* Supervisory Board (SSB) was a board that monitor bank activities in compliance with *Islamic* principle as stated by Bank Indonesia (2009), they also stated that the higher the number of the board, the better the management monitoring mechanism of the firm. The measurement below was referred to Rahman & Bukair (2013).

Variables	Measurement
SSB Members	≥ 5 SSB members = 1 < 5 SSB members = 0
Level of Education	Doctorate degree and higher = 1 Less than doctorate degree = 0
Reputation	Affiliated with AAOIFI, any International Islamic Organization, and governmental bodies = 1 Otherwise = 0
Cross-membership	SSB members who have external membership(s) = 1 Otherwise = 0

3.5.2.2 External Factors

While in external factors, the variables proposed by prior studies were Inflation (INF) as referred from Sahara (2013); Aliyu & Yusof, (2016); Zarrouk et al. (2016); Trad et al. (2017) and Widokartiko, Achsani, & Beik (2016). Additional variable in order to be more reliable was Gross Domestic Product (GDP) which were also suggested by Sahara (2013); Zarrouk et al. (2016) and Aliyu & Yusof, (2016).

3.5.2.2.1 Inflation

The definition of inflation according to Zarrouk et al. (2016) was an instrument to measure overall percentage on consumer price index of goods and services. According to Wibowo & Syaichu (2013), the increase of inflation was a bad signal for investor which leads to decreases toward profitability and also dividend. However, in Malaysia region, according to Wasiuzzaman & Tarmizi

(2010), inflation had positive influence toward profitability because if income increases more than costs, inflation would have positive impact on profits, but it would result inverse relationship if costs increase more than income did. In other studies, the increases of inflation rates would devalue a bank since consumer would withdraw more money to fulfill the needs of the increased price of goods and services (Wibowo & Syaichu 2013). The effect of such event was the bank would have lesser reserves to cover the loss or loans which would likely riskier toward the bank's profitability

3.5.2.2.2 Gross Domestic Product Growth

Economic growth was the total national output of a country. It reflects the condition of an economy in the way of that growing economy influence growing demand for banking services. The proxy of economic growth was GDP growth. According to Muda, Shaharuddin, & Embaya (2013), Real GDP measures the actual increase of goods and services and omit the effect of rising prices. GDP growth also reflects the condition of economy in a way that growing economy satisfies growing demand for banking services and lower risk as opposed to shrinking economy. According to Muda, Shaharuddin, & Embaya (2013), GDP growth had positive influence toward bank's profitability. According to Callen (2008), GDP was composed by goods and services produced and/or rendered for sale in the market and also include some non-market production, such as education and defense provided by government. Not all productions were included in GDP, for example such as homemade production for sale, and black market activities because they were difficult to measure and value accurately. That means for example, if loaf baker bakes bread for customers, it would be contributed to GDP but when the baker bakes for his family, it would not be contributed to GDP.

In broad terms, an increase in GDP was interpreted as a sign that the economy was doing well. When GDP was growing strongly, employment was likely to be increasing as companies hire more employee, and people have more money in their savings.

3.6 Data Analysis

The method used was quantitative research by examining financial statement in each Islamic banks and examining each of annual reports for internal factors, while external factors were examined by using World Bank data.

Indonesia as the sample, the internal factor data were obtained from Otoritas Jasa Keuangan (OJK) website. Some of Islamic window banks were obtained manually through the official website such as BPD Aceh and NTB. While the Islamic Supervisory Board data were obtained from *Sharia* Supervisory Board or *Sharia* Committees profile in annual report from each of the sample.

While in Malaysia sample, the internal factor data were obtained from the annual report of official websites of each bank. While the Islamic Supervisory Board data were obtained from the official websites in *Sharia* profile section and annual report.

Based on the countries mentioned, the period chosen by the author was to examine the trends of both countries on Islamic banking profitability especially incorporate them with the after math of the sub-prime lending crisis. Specifically, the data was taken from 2011 to 2016 to determine the aftermath of subprime lending crises that affected macroeconomic condition in most countries.

The researcher used Microsoft Excel 2010 to input the raw data. Whereas the raw data were obtained from the annual report for the bank-specific factors and from the website of world bank for the macroeconomic factors. Thus, the

format of the data was adjusted with the format that was required by the statistical tool application in order to be well-executed in the processing of the data. The statistical tool application that the researcher used was Eviews 9.5 Student Version.

In a way to obtain an output of multiple regressions, the researcher used least square method. The output of the data provided a comprehend result that was sufficient to provide an understanding to the reader.

CHAPTER IV

RESULTS AND DISCUSSIONS

This chapter contains research findings and discussions about the result of the research. The data was a combination of cross section and time series called panel data. Since the data used panel data, the researcher did 3 procedural statistics tests, which were estimate regression for panel data model, choosing estimation technique, classical assumption (multicollinearity and heteroscedasticity tests). The estimation model of panel data was already explained in Chapter III.

4.1 Choosing Estimation Technique on Panel Data Regression

There were three types of estimation techniques according to Widarjono (2007). The first type was F-Statistic test for choosing whether the researcher needs to use either Fixed Effect method or Common Effect method. Secondly, it was called Hausman test, it helps the researcher to choose whether Fixed Effect method or Random Effect method that was going to be used. Lastly, it was called Multiplier Lagrange test, it helps the researcher to choose whether Common Effect method or Random Effect method.

According to several econometrics experts as stated by Nachrowi & Usman (2006), if panel data had more period or t than individual or i, it was suggested to use Fixed Effect method. On the other hand, if the period's quantities were less than individuals, it was suggested to use Random Effect method. Therefore, the researcher used Hausman test to test whether the data were suitable for Random Effect or Fixed Effect methods.

Table 4.1

Indonesia Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.0000	9	1.0000

Source: Secondary Data Processed, 2017

The null hypothesis for Hausman test which was the precise model for Panel Data Regression was Random Effect. The alternative hypothesis for Hausman test which was the precise model for Panel Data Regression was Fixed Effect. The Prob. stands for Chi-Sq. Statistics and Hausman Statistic stands for the standard of significance which was 5%.

If P-Values (Prob.) was greater than 0.05 (Hausman Statistic), null hypothesis was accepted. Therefore, the precise model was Random Effect. Meanwhile, if P-Value was lesser than 0.05, null hypothesis was rejected. Therefore, the precise model was Fixed Effect.

Table 4.1 had shown that the P-Values in Hausman test was greater than 0.05. Therefore, null hypothesis of Hausman test was accepted and the precise model used in Indonesia was Random Effect.

Table 4.2

Malaysia Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	11.9740	9	0.2148

Source: Secondary Data Processed, 2017

As shown in Table 4.2, as explained before, the null hypothesis of Hausman test was accepted. Therefore, the precise model used in Malaysia was Random Effect. It was concluded that both of the countries used **Random Effect method** of estimation in order to process the result of the research.

4.2 Classical Assumption

4.2.1 Multicollinearity Test

In Panel Data Model regression, a strong correlation among independent variables in forming regression model was not recommended due to the impact toward accuracy of prediction parameter. According to Nachrowi & Usman (2006), a correlation among independent variables generates mistakes on interpretation of regression coefficients. However, this does not mean that multicollinearity was prohibited, only perfect collinearity was permitted, which is multicollinearity among independent variables. Meanwhile, a perfect collinearity which is a correlation closed to 0 is permitted.

The tables below showed multicollinearity tests between two countries. A value that is closed to 0 showed weak multicollinearity among variables. While a value that is closed to 1.00 represented a strong multicollinearity.

Table 4.3

Indonesia Multicollinearity Test

	DR	LEV	FDR	CR	QR	NPF	LOGSSBS	INFL	GDPG
DR	1.00000	0.07157	-0.21678	-0.07395	-0.01237	0.04189	0.15126	-0.21455	-0.37279
LEV	0.07157	1.00000	-0.02459	-0.04594	0.13032	-0.08668	-0.18955	-0.57068	-0.14501
FDR	-0.21678	-0.02459	1.00000	0.78301	0.08316	0.25899	-0.15828	0.11664	-0.05173
CR	-0.07395	-0.04594	0.78301	1.00000	0.39476	-0.00556	-0.07163	-0.03669	0.01462
QR	-0.01237	0.13032	0.08316	0.39476	1.00000	0.06542	-0.04980	-0.08719	-0.06235
NPF	0.04189	-0.08668	0.25899	-0.00556	0.06542	1.00000	0.07657	0.07174	-0.27082
LOGSSBS	0.15126	-0.18955	-0.15828	-0.07163	-0.04980	0.07657	1.00000	-0.00034	0.01969
INFL	-0.21455	-0.57068	0.11664	-0.03669	-0.08719	0.07174	-0.00034	1.00000	-0.09456
GDPG	-0.37279	-0.14501	-0.05173	0.01462	-0.06235	-0.27082	0.01969	-0.09456	1.00000

Source: Secondary Data Processed, 2017

Table 4.4

Malaysia Multicollinearity Test

	DR	LEV	FDR	CR	QR	NPF	LOGSSBS	INFL	GDPG
DR	1.00000	0.14472	-0.51841	0.13395	-0.04341	-0.03647	0.21727	0.17773	0.03632
LEV	0.14472	1.00000	-0.02617	0.04314	0.06431	-0.03704	-0.06943	-0.00957	-0.01417
FDR	-0.51841	-0.02617	1.00000	-0.04441	0.06411	-0.15837	-0.29167	-0.21360	0.01292
CR	0.13395	0.04314	-0.04441	1.00000	0.78402	-0.00787	0.24748	0.19174	0.16990
QR	-0.04341	0.06431	0.06411	0.78402	1.00000	-0.01334	0.09361	-0.07039	0.06097
NPF	-0.03647	-0.03704	-0.15837	-0.00787	-0.01334	1.00000	-0.00044	0.15402	0.02150
LOGSSBS	0.21727	-0.06943	-0.29167	0.24748	0.09361	-0.00044	1.00000	0.27062	0.14163
INFL	0.17773	-0.00957	-0.21360	0.19174	-0.07039	0.15402	0.27062	1.00000	0.82043
GDPG	0.03632	-0.01417	0.01292	0.16990	0.06097	0.02150	0.14163	0.82043	1.00000

Source: Secondary Data Processed, 2017

4.2.2 Heteroscedasticity Test

Heteroscedasticity test was the most relevant test than any other statistical tests in regards with panel data model. Heteroscedasticity test was performed in order to examine whether the residual of the model had constant variance or not. It was considered a fine model if there is variances of residuals.

Table 4.5

Indonesia Heteroscedasticity-White Test

Heteroscedasticity Test: White			
F-Statistic	3.3925	Prob. F(9,86)	0.0007
Obs*R-squared	27.5828	Prob. Chi-Square(9)	0.0011
Scaled explained SS	104.3295	Prob. Chi-Square(9)	0.0000

Source: Secondary Data Processed, 2017

The hypothesis for heteroscedasticity was H0 means Heteroscedasticity while Ha means Homoskedasticity. If the Prob. Chi-Square was < 0.05, H0 was accepted, therefore; the data was heteroscedastic. Meanwhile, if the Prob. Chi-Square was ≥ 0.05, H0 was rejected, therefore; the data was homoscedastic. As shown in Table 4.5, Indonesia suffered from heteroscedasticity due to the value of Prob. Chi-Square was 0.0011. In sum, H0 was accepted.

Table 4.6

Malaysia Heteroscedasticity-White Test

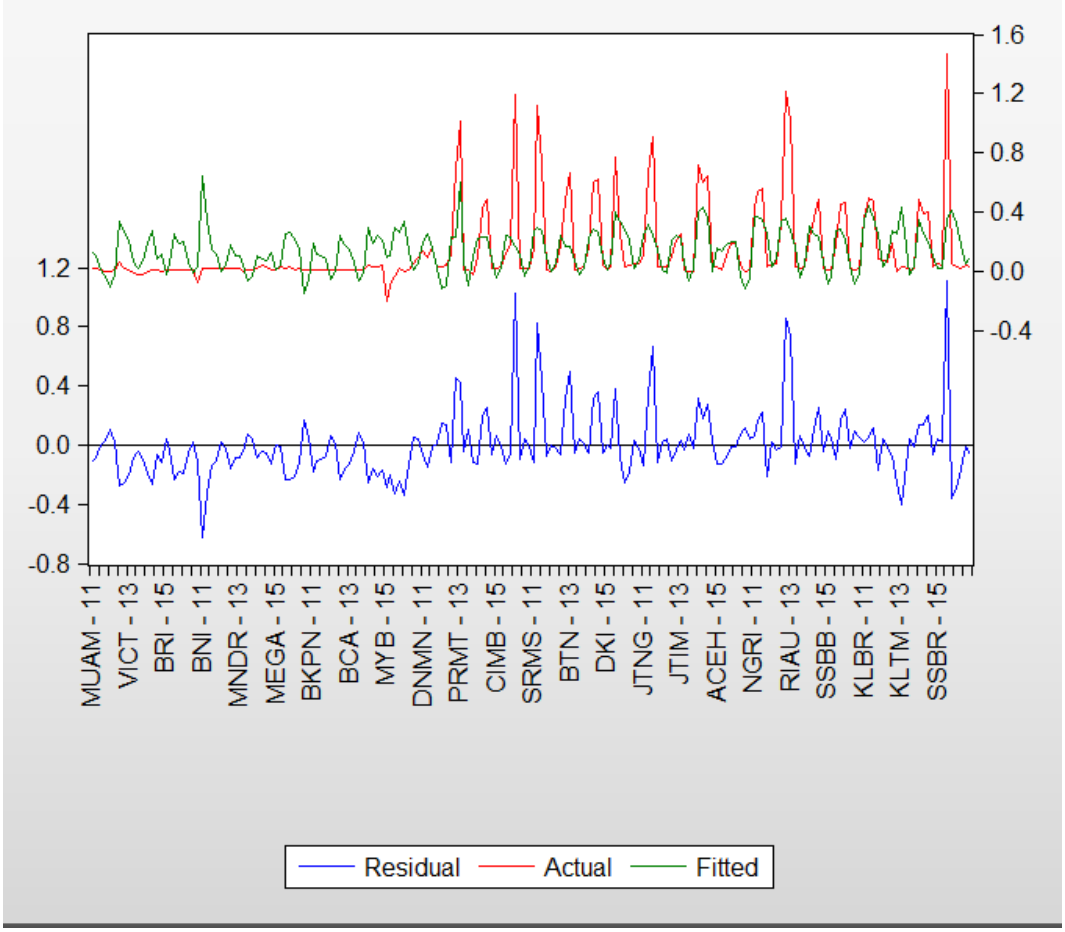
Heteroscedasticity Test: White			
F-Statistic	1.26279	Prob. F(9,86)	0.2689
Obs*R-squared	11.20573	Prob. Chi-Square(9)	0.2619
Scaled explained SS	43.39061	Prob. Chi-Square(9)	0.0000

Source: Secondary Data Processed, 2017

The hypothesis for heteroscedasticity was H0 means Heteroscedasticity while Ha means Homoskedasticity. If the Prob. Chi-Square was < 0.05, H0 was accepted; therefore, the data was heteroscedastic. Meanwhile, if the Prob. Chi-Square was ≥ 0.05, H0 was rejected; therefore, the data was homoscedastic. Based on Table 4.6, H0 was rejected; therefore, the data was free from heteroscedasticity. Hence, in Malaysia data, H0 was rejected; therefore, the data was homoscedastic.

Figure 4.1

Indonesia Heteroscedasticity-Graph Test

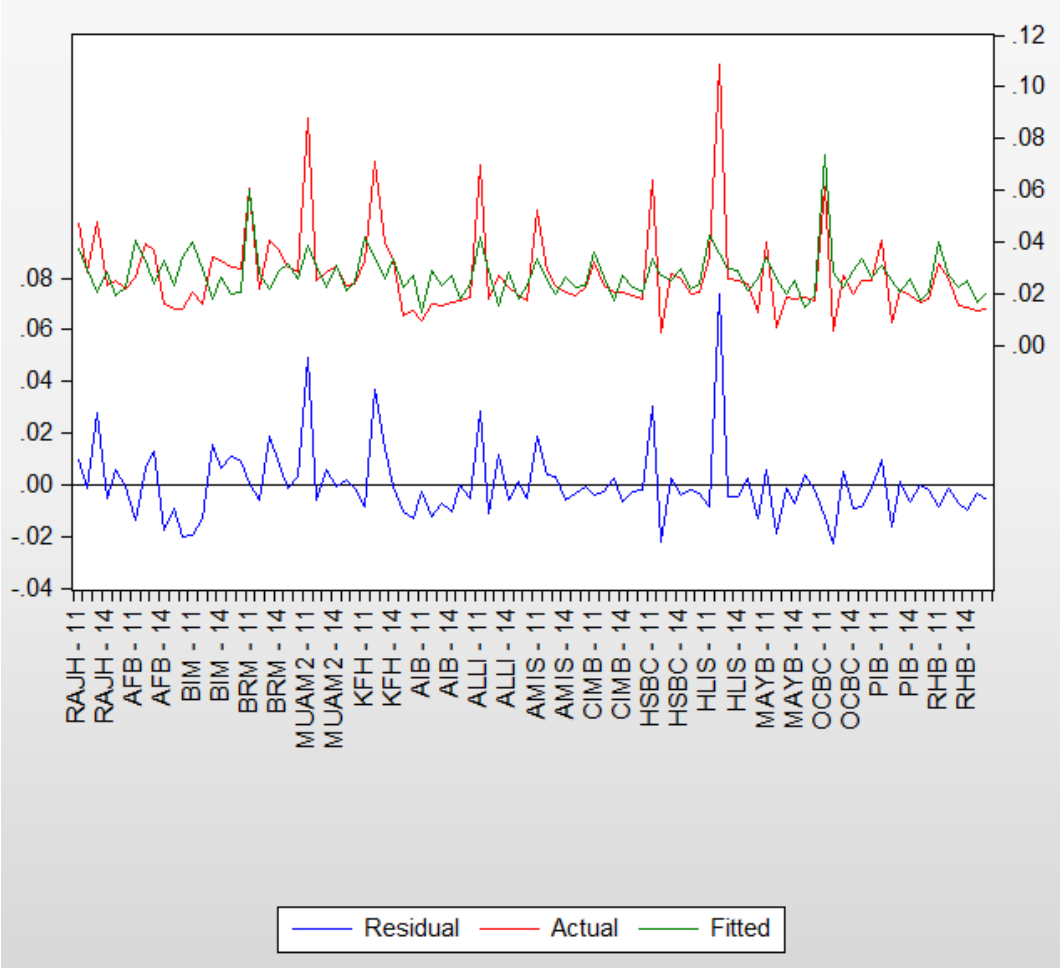


Source: Secondary Data Processed, 2017

Based on graph of Figure 4.1, it can be inferred that if the graph form a pattern, heteroscedasticity occured. On the other hand, if the graph did not form a pattern, the data was free from heteroscedasticity.

Figure 4.2

Malaysia Heteroscedasticity-Graph Test



Source: Secondary Data Processed, 2017

Based on Figure 4.2, it can be inferred that if the graph form a pattern, heteroscedasticity occured. On the other hand, if the graph did not form a pattern, the data was free from heteroscedasticity.

The graph method in examining heteroscedasiticy was not adequate reliable. Therefore, the researcher used graph method in order to support the heteroscedasticity white test.

4.3 Descriptive Statistics

Table 4.9

Descriptive Statistics of the Bank in Indonesia

	N	Mean	Maximum	Minimum	Std. Dev
ROA	192	.144034	1.47047	-.20130	.26975
DR	192	.71657	1.057064	.00084	.21423
DTA	192	.641861	1.102864	.000152	.319732
FDR	192	1.778482	113.55	.092998	8.149499
CR	192	.953035	2.758753	.016905	0.364508
QR	192	.643689	2.9404	.037	.32971
NPF	192	.018	.1244	.00	.019751
LogSSBS	192	1.620097	2.197225	.693147	.434471
INFL	192	.0509	.0836	.0302	.021362
GDPG	192	.0545	.062	.048	.005234

Source: Secondary Data Processed, 2017

Based on table 4.1, it showed the descriptive statistics analysis over all variables in all Islamic full-fledged and Islamic window bank of Indonesia from 2011-2016. The data was expected to have **252** observations. However, HSBC Ltd., Bank International Indonesia, and BPD Jambi were omitted due to the annual report that was not available. Therefore, the data were decreased to **192** observations.

a. Return on Asset

Descriptive statistics showed that average return on asset as a measurement of profitability was 0.144. The greater the return on asset, the better the profitability. The average performance Return on Asset in full-fledged Islamic bank and Islamic window bank in Indonesia from 2011-2016 was **0.14**. Meanwhile, the highest ROA in the sample was BPD NTB in 2011 which was 1.47 on return on asset. It means that BPD NTB in 2011 had fine profitability. The lowest ROA was -0.2013 which appeared to be Bank of Maybank Syariah in 2015. It means that the profitability in Bank of Maybank Syariah in 2015 was not in good performance. In addition, the value of standard deviation for ROA as shown in Table 4.1 was **0.26975**.

b. Deposit Ratio

The average deposit ratio as shown in Table 4.1 was **0.716**. It means that the average performance of deposit ratio on full-fledged Islamic bank and Islamic window bank in Indonesia from 2011-2016 was **71.6%**. The bank that reached the highest peak at that time was BPD Kalimantan Timur of **1.06** DR in 2015, followed by BPD Riau Kepri of **1.05** DR in 2016. The lowest peak of DR was BRI of **0.008** DR in 2012. The standard deviation of DR was **0.21**.

c. Financial Leverage

Debt to Total Asset showed the performance of LEV (Financial Leverage) in the bank. As shown in Table 4.1, the average performance of LEV on full-fledged Islamic bank and Islamic window bank in Indonesia from 2011-2016 was **63.73%**. While the highest point of LEV was BPD Kalimantan Timur of **1.10**.

However, the lowest point of LEV was Bank Muamalat of **0.0001** in 2014. The standard deviation of LEV was **0.32**.

d. Finance to Deposit Ratio

FDR was the first proxies of Liquidity. Based on the hypothesis, greater liquidity leads to greater profitability. The average performance of FDR in full-fledged Islamic bank and Islamic window bank in Indonesia based on Table 4.1 was **1.78**. The highest point of FDR was nominated to BPD Aceh in 2014 of **113.5**. The lowest point of FDR was nominated to Bank Rakyat Indonesia in 2013 of **0.01**. The standard deviation of FDR was **8.15**.

e. Current Ratio

Current Ratio was the second proxy of Liquidity. Based on table 4.1, the average performance of full-fledged Islamic bank and Islamic window bank in Indonesia from 2011-2016 was **0.95**. The highest point of Current Ratio was Maybank Syariah Indonesia of **2.76** in 2012. The lowest point of Current Ratio was BPD Kalimantan Timur of **0.016**. The standard deviation of Current Ratio was **0.36**.

f. Quick Ratio

The last proxy out of three proxies of Liquidity was Quick Ratio. Based on Table 4.1, the average performance of full-fledged Islamic bank and Islamic window bank in Indonesia from 2011-2016 was **0.643**. This means the average of Quick Ratio was **64.3%**. The highest point of QR was from Bank Negara Indonesia *Syariah* of **2.94** in 2011. The lowest point was from OCBC NISP *Syariah* of **0.037** in 2014. The standard deviation of Quick Ratio was **0.33**.

g. Non-Performing Financing

Based on Table 4.1, the mean of Non-Performing Financing was **0.018**. This means that Non-Performing Financing in full-fledged Islamic bank and Islamic window bank performed in the average of **1.8%**. The highest point of Non-Performing Financing was BPD Sumatera Utara of **0.124**. Meanwhile, BCA *Syariah* and Maybank *Syariah* Indonesia got 0 NPF. The 0% of NPF usually was caused by the massive amount of gross financing that was provided by the bank. On the other hand, there were zero non-performing financing generated from bank's client.

h. Log *Sharia* Supervisory Board Score

Log *Sharia* Supervisory Board Score was calculated by adding SSB Members, SSB Level of Education, SSB Reputation, and SSB Cross-Memberships. The mean of Log *Sharia* Supervisory Board Score was **1.620097**. This means that the average score for all banks' *Sharia* Supervisory Board Score was **1.62** after the researcher applied logarithm for the variable. The highest point of Log Sharia Supervisory Board Score was achieved by Bank Muamalat in 2014 of **2.2**. This means in Bank Muamalat, the *Sharia* Supervisory Board had abundant quality in related with its members, level of education, reputation and cross-memberships. On the lowest point of Log Sharia Supervisory Board Score, it was BPD Nusa Tenggara Barat, Bank Victoria *Syariah*, BPD Daerah Istimewa Yogyakarta in 2011, BPD Aceh, BPD Kalimantan Barat, and BPD Nusa Tenggara Barat of **0.7** in 2014-2016. The standard deviation for Log *Sharia* Supervisory Board Score was **0.434**.

i. Inflation

Based on Table 4.1, the mean of Inflation was **0.51**. This means that the average Inflation rate that was achieved by Indonesia in 2011-2016 was **0.05**. This means Indonesia's average Inflation rate was **5%** from 2011-2016. The maximum point of Inflation rate in Indonesia was in 2014 of **8.4%**. While the minimum point of Inflation rate in Indonesia was in 2016 of **3%**. The greater the Inflation rate, the greater the effect toward profitability as well.

j. Gross Domestic Product Growth Rate

The mean of Gross Domestic Product Growth Rate based on Table 4.1 was **0.0545**. While the maximum point of Gross Domestic Product Growth Rate was **0.062** in 2011. The minimum point of Gross Domestic Product Growth Rate was **0.048** in 2015. The higher the rate that was produced by Gross Domestic Product Growth, the more profitability the bank would got.

Table 4.10

Descriptive Statistics of the Bank in Malaysia

	N	Mean	Maximum	Minimum	Std. Dev
ROA	96	.027219	.108832	.00494	.016733
DR	96	.887961	3.503734	.001635	.31708
DTA	96	.9011285	.95514	.031257	.0097233
FDR	96	1.313507	1.06721	.180334	3.455493
CR	96	1.07993	6.768356	.1218	1.124067
QR	96	.834875	6.299439	.086809	.915842
NPF	96	.026947	.58	.0024	.060441
LogSSBS	96	2.488938	3.135494	1.791759	.286014
INFL	96	.023833	.032	.0164	.006
GDPG	96	.046065	.06	.2439	.011201

Source: Secondary Data Processed, 2017

Table 4.2 showed the descriptive statistics of banks in Malaysia. The expected data was 96 and the realization was 96. It means that there were no exclusion of samples.

a. Return on Asset

Based on Table 4.2, the mean of ROA was **0.06**. Meaning that, the average of Return on Asset in full-fledged Islamic bank and Islamic window bank in Malaysia from 2011-2016 was **0.06%**. Meanwhile, the highest point of Return on Asset in Malaysia for full-fledged Islamic bank and Islamic window bank from 2011-2016 was **0.108%** which was derived from Hong Leong Islamic Bank in

2012. While on the lowest point of Return on Asset was marked at **0.005%. I**t was derived from HSBC Amanah in 2012.

b. Deposit Ratio

The mean of Deposit Ratio was **0.89**. This means that in average, full-fledged Islamic bank and Islamic window bank in Malaysia from 2011-2016 got 90% of Deposit Ratio. Hence, there were approximately 9 times more deposit for every 1 total asset. The highest point of Deposit Ratio was Affin Islamic Bank in 2011 which had **3.5%** of Deposit Ratio. Meanwhile, the lowest point of Deposit Ratio was from AM Islamic Bank in 2012 which had **0.0016** of Deposit Ratio. The standard deviation for Deposit Ratio was **0.31**.

c. Financial Leverage

Debt to Total Asset was a proxy for LEV (Financial Leverage). Researcher assumed that the higher the LEV, the lower the profitability. The mean of LEV was marked at **0.9**. This means that the debts of Islamic full-fledged and Islamic window bank in Malaysia since 2011-2016 were 9 times higher than the Total Assets. The maximum point of LEV was from CIMB Bumi Putera Islamic of **0.95** in 2011. This means, in 2011 CIMB Bumi Putera Islamic suffered from Debts more than its Total Assets. The minimum point of LEV was from AM Islamic Bank of **0.031** in 2012. This means that AM Islamic Bank in 2012 could maintain its Debts to its Total Assets at minimum point. The standard deviation for LEV was **0.01**.

d. Finance to Deposit Ratio

FDR was the first proxy of Liquidity in this research. The researcher assumed that if Liquidity increases, profitability also increased. The mean of FDR Ratio was **1.31**. This means that in average financing was 131 times than

Total Deposits for full-fledged Islamic bank and Islamic window bank in Malaysia from 2011-2016. Meanwhile, the highest point of FDR was HSBC Amanah of **1.06**. This means that HSBC's Total Financing was 1.06 times higher than its Total Deposit. Meanwhile, the lowest point of FDR was from Affin Islamic Bank in 2011 of **0.18**. This means that Total Deposit was higher than Total Financing in Affin Islamic Bank at that time. The standard deviation for FDR was **3.45**.

e. Current Ratio

Current Ratio was the second proxy of Liquidity. Based on Table 4.2, the mean of Current Ratio was **1.08**. Current Ratio was representative of the bank's current liabilities that could cover its current assets. Therefore, Islamic full-fledged and Islamic window bank in Malaysia from 2011-2016 in average reached **1.08.** This means the bank had adequate liquidity where the health standard of Malaysia for Current Ratio was 1%. The highest point of Current Ratio was **6.3** which was from CIMB Niaga in 2015. This means that there were more Current Assets of approximately 6.3 times than its Current Liabilities. Meanwhile, on the lowest point of Current Ratio was from Bank Rakyat Malaysia of **0.12**. The standard deviation for Current Ratio was **0.915**.

f. Quick Ratio

Quick Ratio was the third proxy out of three proxies of Liquidity. The mean of Quick Ratio was **0.83**. This means, full-fledged Islamic bank and Islamic window bank in Malaysia from 2011-2016 scored 0.83 in average. According to Nimer, Warrad, & Omari (2013), Quick Ratio was the formula to show the ability of the bank on how its Current Liabilities to recycle its Cash and Cash Equivalents, Marketable Securities or Financing Held for Trading, Financing Held

Available for Sale, and Receivables that matured less than 1 year. Quick Ratio standard was 1.00. Therefore, Malaysia's Quick Ratio was considerably fine as it was closed to standard. The highest point of Quick Ratio was from CIMB Niaga in 2015 of **6.3**. This means, CIMB Niaga in 2015 had more Current Assets and Marketable Securities of 6.3 times than its Current Liabilities. Meanwhile, the lowest point of Quick Ratio was from Bank Rakyat Malaysia of **0.08** in 2011. This means the Current Liabilities that the bank got was higher than its Current Assets plus Marketable Securities.

g. Non-Performing Financing

According to Bougatef (2015), non-performing financing was an unpaid credit from debtor. The lesser the Non-Performing Financing, the higher the bank's profitability. Non-Performing Financing was also known as an indicator of asset quality. It was the highest Non-Performing Financing ever marked by Malaysia of 9.5%, while the lowest was 1.6% as referred to CEIC (2017). The mean of Non-Performing Financing in Malaysia was **0.027**. This means, Islamic full-fledged and Islamic window bank from 2011-2016 in Malaysia reached **0.027%** in average. It means, Financing in average could cover Gross Non-Performing Financing. The highest point of Non-Performing Financing in Malaysia was from OCBC Al-Amin of **0.6** in 2011. This means that the bank's Gross Non-Performing Financing was half higher for every one Financing. Meanwhile, the lowest point of Non-Performing Financing was from Affin Islamic Bank of **0.0024** in 2011. This means that Affin Islamic Bank had greater Financing than Gross Non-Performing Financing. Thus, the risk of the bank failure was lower. The standard deviation of Non-Performing Financing was **0.06**.

h. Log Sharia Supervisory Board Score

Log Sharia Supervisory Board Score was measured by dummy variable. It consisted of the sum of Sharia Supervisory Board Members, Education Level, Reputation and Cross-Memberships. The mean of Log Sharia Supervisory Board Score was **2.48**. The researcher used logarithm of number of members in the board, number of education level, number of reputation and number of cross-memberships. Based on Table **4.2**, as the mean showed **2.48**. This means that the average score of Log Sharia Supervisory Board was **2.48**. Meanwhile, the highest point of Log Sharia Supervisory Board Score was from Bank Islam Malaysia in 2011 of **3.13**. Meanwhile, the lowest point of Log Sharia Supervisory Board Score was from Alliance Islamic Bank in 2012 and 2013. The standard deviation of Log Sharia Supervisory Board Score was **0.286**.

i. Inflation

Inflation was one out of two variables that represented external factors or macroeconomics indicators in this research. The mean of Inflation as shown in Table 4.2 was **0.023**. This means that the average inflation rate in Malaysia from 2011-2016 was **2.3%**. Meanwhile, the highest point of Inflation was **0.32** in 2014. On the other hand, minimum rate of Inflation was occurred in 2012 of **0.016**. The standard deviation for Inflation was **0.006**.

j. Gross Domestic Product Growth Rate

Based on Table 4.2, Gross Domestic Product Rate was marked averagely at **0.046**. It means that among 6 years period, from 2011-2016, in Malaysia the Gross Domestic Product Growth Rate was marked **4.6%** in average. Meanwhile, on maximum point was **6%** from 2014. On other hand, the lowest point was marked at **2.4%** in 2012. The standard deviation for Gross Domestic Product Growth Rate was **0.011**.

4.4 Regression Analysis

Regression analysis was done to estimate and predict the average value of the dependent variable based on the value of independent variables. The researcher used EGLS Panel. Basically, it was a regression analysis with random effects method applied, since this research was suitable for random effects as tested with Hausman test before. The research consisted of one dependent variable and seven independent variables with 3 proxies included in one of the seven variables. The researcher conducted studies on two different countries to compare and to have reliable results. The researcher also used different currencies in the data in order to compare objectively. The following was the formula for each of the countries:

$$PROF = \beta o + \beta 1X(DR) + \beta 2X(LEV) + \beta 3X(FDR) + \beta 3X(CR) + \beta 5X(QR) + \beta 4X(NPF) + \beta 6X(LogSSBS) + \beta 8X(INF) + \beta 9X(GDPG) + \varepsilon$$

4.4.1 Indonesia

Table 4.11

Indonesia EGLS Panel (Cross-section random effects) analysis

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.807757	0.300837	-2.685031	0.0079
DR	-0.17012	0.090305	-1.883843	0.0612
LEV	0.022701	0.068443	0.331675	0.7405
FDR	-0.002362	0.002138	-1.104677	0.2708
CR	-0.046624	0.051139	-0.911715	0.3631
QR	0.176333	0.048326	3.648837	0.0003
NPF	-0.953075	0.944788	-1.008771	0.3144
LOGSSBS	-0.081889	0.043775	-1.870676	0.0630
INFL	2.068972	0.999301	2.070419	0.0398
GDPG	19.05996	3.685411	5.171733	0.0000

R-squared	0.289781	Mean dependent var	0.122457
Adjusted R-squared	0.254660	S.D. dependent var	0.260723
S.E. of Regression	0.225090	Sum suqred resid	9.221128
F-statistic	8.250983	Durbin-Watson stat	1.584460
Prob(F-statistic)	0.000000		

Source: Secondary Data Processed, 2017

In Indonesia, based on the F-Statistic, it showed 8.25 with the probability of 0.000. This means that DR, LEV, FDR, QR, CR, NPF, Log SSBS, GDPG, and INFL simultaneously influenced ROA of 8.25.

Based on the R-squared, it showed that in Indonesia, 29% of ROA was influenced by DR, LEV, FDR, QR, CR, NPF, LogSSBS, GDPG, and INFL. This means that the 71% would be measured by other unknown variables. Since this research was based on Panel Model, the tolerable adjusted r-squared was valued between 0 to the interval ($0 \leq Adj.R^2 \leq 1$).

Based on the probability, there were 5 independent variables that were accepted in accordance with the level of 10%. Those were DR, QR, INFL, GDPG, and LogSSBS. This means that DR, QR, INFL, GDPG, and LogSSBS had significant influence toward ROA. While based on the coefficient column, there were five variables that influence ROA positively and four variables that influence ROA negatively. The positives were LEV, QR, INFL, GDPG while the negatives were DR, FDR, CR, NPF, and LOGSSBS.

4.4.2 Malaysia

Table 4.12

Malaysia EGLS Panel (Cross-section random effects) analysis

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.075016	0.04314	1.738883	0.0856
DR	-0.013996	0.006075	-2.303752	0.0236
LEV	-0.024778	0.040933	-0.605333	0.5466
FDR	-0.017176	0.014351	-1.196809	0.2347
CR	0.005328	0.002518	2.115601	0.0373
QR	-0.004624	0.00307	-1.506211	0.1357
NPF	0.071097	0.026182	2.715527	0.008
LOGSSBS	-0.003868	0.005832	-0.663154	0.509
INFL	1.173232	0.558164	2.101951	0.0385
GDPG	-0.486322	0.267718	-1.816544	0.0728

R-squared	0.277116	Mean dependent var	0.027249
Adjusted R-squared	0.201465	S.D. dependent var	0.016734
S.E. of Regression	0.014953	Sum suqred resid	0.019229
F-statistic	3.663101	Durbin-Watson stat	2.158616
Prob(F-statistic)	0.000648		

Source: Secondary Data Processed, 2017

Meanwhile in Malaysia, based on the F-statistic, it showed 3.66 with the probability value of 0.0006. This means that DR, LEV, FDR, QR, CR, NPF, Log SSBS, GDPG, INFL in Malaysia influenced ROA significantly of 3.66.

Judged by the R-squared, it was known that the R square was 0.28. It means that all of the independent variables affected 28% toward the dependent variable, hence there were 72% other unknown variables that may influence dependent variable more than this research. In other word, DR, LEV, FDR, NPF,

QR, CR, Log SSBS, GDPG and INFL only influenced 28% toward ROA. This was because these variables influenced indirectly on ROA. While the direct influence variables were probably net operating profit after tax/NOPAT and total Islamic financing could increase the percentage of r square according to previous studies.

On the probability value, variable that had probability of less than 0.5 was DR, CR, NPF, INFL, and GDPG which means that the rest of the variables were insignificant toward ROA.

4.5 Hypothesis Testing

4.5.1 Deposit Ratio and Return on Asset

DR (Deposit Ratio) was a ratio to calculate the strength of bank and utilize its total asset to generate deposit. According to Muda, Shaharuddin, & Embaya (2013), the deposits of the banks were considered the main source of bank funding and hence, it had a positive impact on the profitability of the banks. Therefore, Muda, Shaharuddin, & Embaya (2013) hypothesized that DR had positive and significant influence toward ROE. In addition, Khan, Ijaz, & Aslam (2014) also shared similar hypothesis with different dependent variables which was ROA and EPS.

In Indonesia, DR influenced negatively toward ROA since the coefficient value marked was -0.17. This means that the increase of DR by 1% would decrease ROA by 17%. Meanwhile, DR statistically had significant influence toward ROA based on the probability value that showed 0.06 < 0.10. Therefore, null hypothesis 1 was rejected. The coefficient result was similar with Khan, Ijaz, & Aslam (2014). They found DR which influence ROA negatively in other countries, yet it got statistically insignificant.

In the condition of Indonesia, according to Sharia financing department of Bank Indonesia (2012), the growing of asset abates. It was known that because of the third-party deposits were decreased steeply during March through September, the decreases were notably caused by government that took great number of deposits in Sharia Bank. BI also reported that government had their plan undergoing for the development of Hajj pilgrimage in Indonesia. It was also shown in the ***raw*** data of 8 banks that showed uncommon trend of deposit to total asset.

Meanwhile, in Malaysia DR also generated negative influence based on the coefficient that showed -0.014. This means, whenever DR increased by 1%, it would decrease ROA by 1.4%. However, in p-value, DR had 0.0236. This means DR had significant influence toward ROA. Therefore, DR influenced ROA significantly and in negative manner. Hence, null hypothesis 2 was rejected. The finding was contradicted with the previous study of Ramlan & Sharrizat (2016), which had the variable of deposit to total asset which was insignificant toward ROA and ROE on both conventional and Islamic banking.

Overall, on both countries, DR had negative influence toward ROA. However, only in Malaysia DR had significant influence, while Indonesia had insignificant influence.

4.5.2 Financial Leverage and Return on Asset

The proxy of LEV (Financial Leverage) was DBTA's (Debt to Total Asset). In Indonesia, it had positive influence toward ROA as it referred through its coefficient value marked at 0.022. This means that whenever LEV increased by 1%, it would increase ROA by 2.2%. Meanwhile, the profitability value marked at 0.74 > 0.05, means that LEV statistically insignificant toward ROA. Therefore,

null hypothesis 3 was accepted. This means that the asset that would be used to cover debt in Islamic bank probably did not affect ROA positively and significantly.

LEV's result on coefficient in Malaysia value was negative of -0.025. This means that whenever LEV increased by 1%, ROA would decreased by 2.5%. Moreover, the p-values of LEV in Malaysia was 0.054, which was statistically significant since the p-values was greater than 10% of the significant level. Therefore, null hypothesis 4 was rejected. The coefficient results was similar with the study of Waemustafa & Sukri (2016). They found that total liabilities to total assets in a year that partake as bank-specific factors influence in a negative manner toward liquidity risk that would be linked to profitability. Yet, it was statistically insignificant.

Overall, LEV in Indonesia and Malaysia had positive and negative influence toward ROA. Yet, both countries influenced statistically insignificant.

4.5.3 Finance to Deposit Ratio and Retn on Asset

FDR was one of the three proxies of Liquidity. It measures the amount of deposits that bank could handle in order to reform it as a financing toward customers.

In Indonesia, FDR's coefficient value was -0.0023. This means, every time FDR increased 1%, it would decrease ROA by 0.23%. It also marked quite far from the statistical significant level which was 0.27 > 0.05. It means that statistically, FDR influence insignificantly ROA. Hence, the deposit that distributed to finance customer probably did not affect profitability of the Islamic bank in Indonesia and it had negative impacts. Therefore, null hypothesis 5 was accepted. The result of the research was inconsistent with previous research where

Riyadi & Yulianto (2014) found that FDR influence significantly and positively toward ROA. The inconsistency was probably because of the sample, which the current researcher inputted Islamic window bank and full-fledged Islamic bank. The year range was also wider which increases the variance that rises probability value.

Based on the raw data, it was found that BPD Aceh had uncommon trend between FDR and ROA. It is shown in 2011, 2012 & 2013. The ROA of the bank had slightly decline from year to year. In the meantime, the FDR did similar trend. While in 2014, the bank had 0.028 ROA which was a steep declining since the last 3 years. In the meantime, FDR of the year showed a significant increase of 113.55. It was the peaks among all banks in the research. By such event, it was proven that FDR showed negative toward ROA.

On the other hand, the coefficient of Malaysia's FDR of -0.017 means whenever FDR increased by 1%, it would decrease ROA by 1.7%. Meanwhile, the probability value of FDR toward ROA was in a big gap of at 0.234. It means that FDR statistically had insignificant influence toward return on Asset. Therefore, null hypothesis 6 was accepted. Probably, the most significant influence toward ROA was not based on the value of deposits from customer, institutions and Bank Negara Malaysia, instead from the *Murabahah* and *Musyarakah* mode of financing that stimulates the return.

Overall, both countries' relationships of FDR and ROA were insignificant, yet both of them also shared the same impact which was negative.

4.5.4 Current Ratio and Return on Asset

Current ratio is the second proxy of liquidity ratio to calculate ability of the company to utilize its short term liabilities to generates short term asset.

According to Adeyanju, David, & Oluwayinka (2011), current asset that was incurred in the formula was cash, marketable securities, receivables, inventories and prepaid expense. While the current liabilities were account payables, bills payables, note payables, accrued expenses, and tax liabilities. Current ratio that was greater than 1 was considered as satisfactory. On the other hand, the weakness of current ratio was that it was a test of quantity instead of quality. It means that current ratio did not truly reveal liquidity, instead it gives a rough idea of the firm's liquidity.

In Indonesia, current ratio was marked -0.046 in the coefficient value. Since the value of the coefficient was negative, it produced negative impact toward ROA. It can be inferred from the coefficient value that whenever CR increased by 1%, ROA would decrease by 4.6%. Meanwhile, as shown in the probability value column, it showed 0.3631 which possessed a distant level from the statistical significance level of 0.05. By this result, it means that CR was statistically insignificant toward ROA. Therefore, null hypothesis 7 was accepted. However, the result was inconsistent with the previous study of Adeyanju, David, & Oluwayinka (2011) which had liquidity that influenced negatively and significantly toward banking profitability in Nigeria.

The result in Malaysia showed that CR influence ROA positively. It was inferred from the coefficient value that marked at 0.005, meaning that whenever liquidity increased by 1%, ROA would also increase by 0.5%. However, CR statistically was significant since it had p values of 0.037. Thus, null hypothesis 8 was rejected. This means CR had positive and significant influence toward ROA.

Overall, the result of CR was contrast between the two countries. In Indonesia, it was statistically negative and insignificant, while in Malaysia it was statistically positive and significant.

4.5.5 Quick Ratio and Return on Asset

Quick ratio was a proxy of liquidity ratio beside current ratio. According to Adeyanju et al., (2011), QR was considered to be a better addressor to the short-term solvency of a firm. QR was a strong representative of current financial condition. However, different industries have different measurement of short-term solvency. Current ratio and quick ratio were quite similar, especially in banking industries. The higher the value they possessed, the higher the profitability obtained.

QR (quick ratio) showed positive influence toward ROA in Indonesia because it was 0.176. This means an increase of QR by 1% would also increase ROA by 17.6%. Probability value also expressed a significant influence toward ROA of 0.0003. Hence, to conclude, QR influenced ROA in positive and significant manner. Therefore, null hypothesis 9 was rejected. According to Jou (2017), quick ratio and ROA had negative and significant influence, yet the sample of his research was Islamic construction company. He implied that if the level of current assets of the firm was high, profitability represented by ROA would be low. While in this research, it had positive and significant influence. It means that cash, marketable securities, and financing exceeded from short term debts given to the bank. The lower liquidity risk would occur at the bank due to the inflow that the bank had from the exceeding cash, marketable securities and financing. Thus, profitability would grow.

QR in Malaysia showed negative relationship toward ROA which possessed coefficient value of -0.004. This means that every time QR increased by 1%, ROA would be decreased by 0.4%. However, QR did not showing a significant relationship toward ROA because p value was 0.135. It can be inferred that null hypothesis 10 was accepted because 0.135 > 0.05. This means that the relationship between QR and ROA was statistically insignificant. In the study of Nimer, Warrad, & Omari (2013) and Sanwari & Zakaria (2013) who studied on commercial banks in Jordan, Southeast Asia, UAE, and Middle East, QR had an positive and significant impact on ROA. Based on those previous studies, the result was inconsistent, probably because in current research, it included full-fledged Islamic banks and Islamic window banks, in which the transactions that influence profitability toward ROA were mostly from Islamic financing and capital which then related to profit sharing. Moreover, in Islamic banking industry, they omitted interest rate which probably a variable that improve the significance of liquidity toward profitability.

Overall, both countries had differential effect, which was positive for Indonesia, and negative for Malaysia. On the other hand, Indonesia showed statistically significant, while Malaysia showed statistically insignificant.

To conclude, Liquidity based on FDR, both countries showed insignificant impact. Meanwhile, based on Current Ratio, Indonesia showed insignificant impact and vice versa in Malaysia. Based on Quick Ratio, Indonesia showed significant impact and vice versa in Malaysia.

In sum, Liquidity variable was significant by using Current Ratio in Malaysia. While in Indonesia, Liquidity variable was significant by using Quick Ratio.

4.5.6 Non-performing financing and Return on Asset

Non-performing financing was a measurement that judge bank's ability to cover credit failure, usually by customer. According to Amelia (2015), NPF can be assessed to obtain the level of asset quality. According to Djuwita & Mohammad (2016), NPF was a risk burden by a bank as a result of failure of loan payment from debtor along with its interest and due date that was scheduled.

Non-performing financing (NPF) possess -0.953 on coefficient value, which means it had negative impact toward ROA. In other word, whenever NPF increased by 1%, it would decrease ROA by 95.3%. On probability value, NPF showed insignificant influence of 0.314 > 0.05, therefore null hypothesis 11 was accepted. This means that NPF showed insignificant influence toward ROA. The result was similar with Amelia (2015), which conducted a research of financial ratios that had influence toward profitability in Islamic banking in Indonesia. The NPF that had been processed was negative and insignificant toward ROA. The reason behind this was Loan Loss Reserves (LLR) or *Penyisihan Penghapusan Aktiva Produktif* (PPAP) was still able to cover the financing problems. She argued that banking's profitability can still be increased by high NPF because banks were still able to obtain not only a source of income from finance portfolio, but also from other sources that provide a relatively high influence on the rate of ROA.

Meanwhile, in Malaysia, NPF influenced positively toward ROA since the coefficient value was 0.071. This means that every time NPF increased by 1%, ROA would also increase by 7.1%. Meanwhile, the influence of NPF toward ROA was significant because p values was 0.008 < 0.05. Therefore, null hypothesis 12 was rejected. This means that the relationship of NPF and ROA was statistically

positive and significant. The results was contradicted with the hypothesis due to the coefficient that had positive impact, while in the hypothesis, it was expected to have negative impact.

Overall, the influences of NPF toward ROA for both countries were statistically insignificant for Indonesia, and significant for Malaysia. Meanwhile, the coefficient value in Indonesia showed negative while in Malaysia showed positive.

4.5.7 Log SSB Score and Return on Asset

According to Gebba & Aboelmaged (2016), *Sharia* Supervisory Board was a board that was assigned usually by government authorities in order to authorize or ensure that *Sharia* Banks compliant with *Sharia* Law or not. This variable was the proposed variable by the researcher as a new variable to be included in the research. The researcher applied logarithm to SSBS in order to smooth the value of the data with other independent variables. SSBS consists of the number of SSB members assigned, the strength of their level of education, their reputability, and the number of cross-membership. The results of those measurements were summed and inputted to the data.

In Indonesia, Log SSB Score showed negative influence toward ROA based on the coefficient value of -0.082. This means that the increase of 1% of Log SSBS, would decrease ROA of 8.2%. Meanwhile, Log SSBS produced insignificant influence toward ROA, since the probability value was at 0.063, hence null hypothesis13 was accepted. It also means that any fluctuation in SSB number of members, reputation, education and cross membership likely did not influence the development of ROA percentage. According to Septiputri & Mutmainah (2013), SSB Score did not influence profitability significantly. They

assumed that there was still lack of SSB authority and lack of reliability on SSB's directorship. Hence, the role of SSB in Islamic banking did not influence effectively the growth of ROA. Another previous study of Rahman & Bukair (2013) stated that no relationship was found between SSB Score with economic performance. Based on the previous studies, it showed inconsistencies among results. As conclusion, based on the results, probably the more the SSB members, the higher the level of education, reputation and cross-membership that each SSB members possess. It would decelerate the growth of ROA. If there were more members of SSB, there would be more bureaucracy on Islamic-related transaction in Islamic banking. Hence, the lesser the SSB Score, the higher the percentage of ROA could have.

As shown in the coefficient value in Malaysia, the Log SSB Score possess -0.0038. It means that every time Log SSB score increased by 1%, ROA would decrease by 0.38%. On the other side, it had statistical significance level marked slightly higher than the standard significance level, which was 0.0509 > 0.05. Although it was extremely closed to the standard significance level, it is not statistically significant. Therefore, null hypothesis 14 was accepted. Hence, Log SSB Score Malaysia showed statistically insignificant influence on ROA. This means that the result was consistent with previous results which were insignificant.

Overall, the relationships of Log SSBS and ROA on both countries were similar, which was negative. Moreover, similar result for probability value, on both countries were statistically insignificant.

4.5.8 GDP Growth and Return on Asset

Gross Domestic Product was the output or value of total goods and services in a country within a specific time. Usually, Gross Domestic Product was a reflection of one's country economic growth. In simple word, Gross Domestic Product was a broad measurement of nation's overall economic activity.

GDP Growth possess the highest coefficient value of 19.06 This means that every increases of 1% in GDP Growth would statistically increase ROA by 1906%. In addition to that, GDP growth had the most significant variable that influence ROA in this research by looking at the probability values of 0.00 > 0.05. Therefore, null hypothesis 15 was rejected. According to previous study, Sahara (2013) stated that an increase in GDP growth supports consumer income. According to Keynes theory, consumer tend to save their money as their income grows. Thus, it can increase the bank's savings. According to Sukirno (2003), the positive relationship between GDP growth and profitability were accepted by Keynes' theory. The value of savings in the bank was not dependent by interest, it was rather depend on the value of consumer income.

In macroeconomic level, Malaysia cannot exceed the variables in Indonesia. Based on the coefficient value of -0.4863, it can be inferred that whenever GDP growth increased by 1%, ROA would decrease by 48.63%. In other word, GDP growth influenced negatively toward ROA. In significant level, GDP growth influenced insignificantly toward ROA since it was 0.073 > 0.05, a similar affection with GDP growth in Indonesia. In Indonesia, the coefficient was 18.343 which had higher value than Malaysia. Thus, null hypothesis 16 was accepted due to high probability value.

According to Armadeo (2017), the ideal economic growth rate was between 2% to 4%. Meanwhile, in Malaysia in 2011 according to world bank, it got 5.3%, in 2012, 2013, 2014, 2015 and 2016, it got 2.44%, 4.7%, 6%, 5%, and 4.2%. It can be inferred that only in 2012, Malaysia reached the ideal economic growth, which was between 2% to 4%.

However, even the probability value showed insignificant, the Keynes theory was aligned with the result because of the positive relationship that the result had with Indonesia. According to Keynes theory, economic growth supported the consumer income and this will make consumer save their money to the bank as their income grows. Therefore, the bank's profitability would be affected by the consumer's savings.

Overall, in Indonesia, GDP growth showed positive relationship toward ROA, meanwhile in Malaysia, GDP growth showed negative relationship toward ROA. In probability value, Indonesia was statistically significant while Malaysia was statistically insignificant.

4.5.9 Inflation and Return on Asset

According to Zarrouk et al. (2016), Inflation was a condition where the consumer price index of goods or services in a country was above its average. One of the factors that stimulate inflation was a monetary policy, by decreasing the rate of interest in the bank, it triggers people to withdraw their money and spend it.

Inflation showed positive influence toward ROA since it was 2.07. It means that whenever inflation increased by 1%, ROA would increase by 207%. Meanwhile, inflation was statistically significant toward ROA since the probability value was 0.039 > 0.05. Therefore, inflation was influencing

significantly and positively toward ROA. Thus, null hypothesis 17 was rejected since inflation statistically significant. For interpretation, it means that whenever there was an increase of inflation rate in Indonesia, the profitability of Islamic bank also shared the same effect. The result was similar with Sahara (2013). She stated that if an increase of product price was exceeding the production cost, the profitability of a company would increase.

As shown in the data, there were some Islamic full-fledged and window banks that showed positive trends between Inflation and Return on Asset. As shown in Permata Bank Syariah in 2011, 2012, and 2013, it got Return on Asset for 0.12, 0.68 and 1.02; while during those years, Inflation reached 0.04, 0.04 and 0.08. This means Return on Asset and Inflation in Permata Bank Syariah had positive relation. This trend was also applied with CIMB Niaga Syariah and OCBC NISP Syariah at the same year.

In Malaysia, inflation influenced ROA positively since the coefficient value was 1.173. This was an inverse result with inflation in Indonesia, which was 2.07. It means that whenever inflation increased by 1%, ROA would be increased by 117.3%. In probability value, inflation influenced ROA significantly because p value reached 0.038 > 0.05, which means null hypothesis 18 was rejected.

The result was similar with Sahara (2013), although in other references such as Wibowo & Syaichu (2013) stated that inflation and ROA had negative and insignificant relationship. This means that although inflation rises up, the return that Islamic bank would obtain did not significantly increased. Oktavia (2009) argued that Islamic bank had the ability to resist toward the increase on inflation by concluding from their research.

It was proven by the data of Return on Asset of Bank Islam Malaysia in 2014, 2015 and 2016 with the Inflation at the exact years. The Return on Asset reached 0.033, 0.03, 0.029, while Inflation reached 0.032, 0.021, 0.021. This pattern was also applied on Bank Rakyat Malaysia Shariah. Meanwhile, in Asian Finance Bank Shariah, its Return on Asset in 2014, 2015, and 2016 reached 0.016, 0.014, 0.014; while Inflation showed similar pattern, which reached 0.032, 0.021, and 0.021. Lastly for increasing trends, Bank Muamalat Shariah Malaysia in 2012, 2013, and 2014 showed positive trends between Return on Asset and Inflation. The Return on Asset was 0.025, 0.028, and 0.03; while Inflation was 0.016, 0.021, 0.032. Overall, it was proven that Inflation and Return on Asset had positive correlation.

Overall, the relationship of inflation toward ROA in Indonesia was statistically significant and positive.

4.6 Hypothesis Testing Summary

Table 4.13

Variables	Country	Statistics	Results	Decision
DR	ID	Coeff	-0.17	Accepted
		Prob.	0.06*	
	MY	Coeff	-0.014	Accepted
		Prob.	0.0236	
LEV	ID	Coeff	0.022	Rejected
		Prob.	0.74	
	MY	Coeff	-0.025	Accepted
		Prob.	0.054*	
FDR	ID	Coeff	-0.0023	Rejected
		Prob.	0.27	
	MY	Coeff	-0.017	Rejected
		Prob.	0.234	
CR	ID	Coeff	-0.046	Rejected
		Prob.	0.3631	
	MY	Coeff	0.005	Accepted
		Prob.	0.037	
QR	ID	Coeff	0.176	Accepted
		Prob.	0.0003	
	MY	Coeff	-0.004	Rejected
		Prob.	0.135	
NPF	ID	Coeff	-0.953	Rejected
		Prob.	0.314	
	MY	Coeff	0.071	Accepted
		Prob.	0.008	
LOGSSBS	ID	Coeff	-0.082	Accepted
		Prob.	0.063*	
	MY	Coeff	-0.0038	Accepted
		Prob.	0.0509*	
INFL	ID	Coeff	2.07	Accepted
		Prob.	0.039	
	MY	Coeff	1.173	Accepted
		Prob.	0.038	
GDPG	ID	Coeff	19.06	Accepted
		Prob.	0	
	MY	Coeff	-0.4863	Rejected
		Prob.	0.073*	

*Significance at 10% level

Source: Secondary Data Processed, 2017

CHAPTER V

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Conclusions

This research objective was to determine which variables of bank-specific indicators and macroeconomic specific indicators that had significant influence on return on asset of Islamic full-fledged and Islamic window bank in Indonesia and Malaysia.

The discussion revealed that Indonesia had Liquidity, Inflation and Gross Domestic Product growth rate which statistically influenced ROA in a positive manner. While in negative manner, there were DR and *Sharia* Supervisory Board.

On the other hand, in Malaysia it can be inferred that there were seven variables that show statistically significant influence on ROA. Those were DR, Financial Leverage, Liquidity, Non-Performing Financing, *Sharia* Supervisory Board Score, Gross Domestic Product Growth Rate and Inflation. The variables that had positive influence were Liquidity, Non-Performing Financing, Inflation and Gross Domestic Product Growth Rate. The variables that had negative relationship were DR, Financial Leverage and *Sharia* Supervisory Board.

5.2 Limitations

Although both countries presented small percentage of R-square, which means the variables that the researcher used did not produce strong influence on ROA. Thus, this issue became the limitation of the study.

Other limitation was that there was one variable that was included in the research which was Log Bank Size. The researcher then omitted the variable due to the abnormal of the data output after it was being processed by Eviews.

The researcher also omitted one dependent variable which was Return on Equity due to the unavailability of the equity data in the financial reports of most of the Islamic window bank in Indonesia.

Other limitation was that there were sample of banks which were omitted due to the unavailability of the data to complete the measurement of independent variables. Thus, the total observations were decreased from the planned total observations. This was caused by the extensiveness of the years range.

5.3 Recommendations

The researcher provides recommendations according to the result of the data for practitioners and academicians as follow:

5.3.1 Practitioners

1. The hypothesis of DR variable in Indonesia and Malaysia was not in line. Which in hypothesis, DR had positive and significant influence toward ROA, while the result was statistically it had negative and significant influence on ROA. Siddique et al. (2012) suggested that the more the branch networks, the more the deposit will get. Therefore, the more also the return that the bank would earn. This result also showed that there was high competitiveness among *Sharia* banking industry (Mustafa et al., 2012).
2. Financial Leverage influenced ROA negatively and significant. Only in Malaysia, Financial Leverage was statistically significant. According to Zarrouk, Ben Jedidia, & Moualhi (2016), a bank that has high liabilities over its total asset will suffer from high insolvency risk. This means, it was suggested for bankers to be aware of the qualification on whom the finance would be lent, hence the insolvency

risk would be decreased and therefore there would be an increase on profitability.

3. As suggested by Adeyanju et al., (2011), it was important for banking practitioners to maintain optimal liquidity level in order to satisfy their financial obligations toward customer or depositor and maximize profit for shareholder or investor. It was also suggested that if the bank pursues great profit without consideration of maintaining the minimum liquidity level based on Bank Indonesia, the bank may suffer from illiquidity which then reduces customer loyalty and support. Bank Indonesia stated that statutory reserves requirement or *giro wajib minimum* (GWM) that had to be fulfilled in order to reach the minimum level of liquidity. Generally, it was also recommended for all the banks to fulfill their statutory requirements in accordance with their own countries' standard.
4. According to the regression model, DR and FDR influenced ROA negatively, which were marked -0.014 and -0.017. Therefore, it can be concluded that in Malaysia, there were deposit allocation issue. Thus, it would increase the profitability if Islamic banking policymaker formulates deposit allocation efficiency in order to increase profitability percentile. In the meantime, Islamic bankers were also recommended to take action in supporting deposit allocation efficiency.
5. Second recommendation was that since DR and FDR was correlated, it was safer to allocate the finance in less riskier sector than much riskier

sector. Therefore, profitability would be increased although it was slower than allocating it into much riskier sector.

6. Normally, according to previous studies, NPF and ROA correlated negatively. Yet according to the data, NPF and ROA correlated positively. This means that whenever there were clients that were unable to pay to the bank, the bank's profitability was likely to be increased.. The reason of this phenomenon is similar with DR and FDR, which means that there was inefficiency of deposit allocation. The banks were not efficient enough to manage their earning to generate a return. Thus, it decreased profitability.
7. There were probably many financing provided to the customer per annual. Thus, profit recognition would be higher in the first year of installment than in the upcoming year. The bank recognized profit but in the following year, the profitability decreases until the annuitization phase when there are no new financing provided to the customer. Meanwhile, the profitability increased when there are many new financing provided by the bank. Thus, the bank earns the installment by new and many customers which affects the increase of the profitability. The risk of this situation is when the bank is unable to find new customer or new financing, the profitability will likely decreased. In the case of Malaysia where the NPF influence ROA negatively, the situation is the bank is unable to find new customers in order to earn new installment. Thus, the profitability decreased due to the constant number of financing provided to the customer. However, it is the bank's policy to set the NPF recognition. For these reasons,

the researcher recommends to proportionate the NPF recognition in order to have a constant profitability growth rate.

8. *Sharia* Supervisory Board Score in both countries showed the significance level of 10%. Both countries also shared similar effect of coefficient, which was negative. It is implied that the more score the *Sharia* Supervisory Board have, the lesser the returns. As a Muslim, to prioritize the law of Islam, the guidance of the wisdom of Allah and His final messenger was an obligation. Therefore, the bank had to recruit someone who had expert in knowledge and science of Al-Qur'an and Sunnah under understandings of final prophet's companions and the next two best generations of companion in order to fully implement the system of *Sharia* Banking. As a payoff, the bank will have lesser returns, as there will be some deletion of *Sharia* incompliant earnings.
9. Factors that affect GDP growth were growth of global economy and commodity goods which were also affected by global supply, demand, and conducive politics (Indonesia investments, 2017). Therefore, Islamic bankers or practitioners need to stay updated toward macroeconomic condition. This was also applied to inflation which had the rate authorized by the government. Moreover, it is better if there has to be a warning at certain threshold by Islamic bank if Gross Domestic Product Growth Rate and Inflation Rate reached certain percent.

5.3.2 Academicians

1. Based on the research, it is recommended for academician to decrease the observation period. This is recommended due to the availability of the data that sometimes were not available in some years, usually 2011 and earlier.
2. It is also recommended for further research to use new independent variable such as operational efficiency or capital adequacy ratio.
3. It is highly recommended to conduct a research on one type Islamic bank only such as Islamic full-fledged bank or Islamic window bank. Due to the operational activity of both banks which were slightly different and in order to have more accurate result of one of the types.

5.4 Suggestion

The variables that the researcher suggested were whether operating efficiency or capital adequacy ratio is to be added to the bank-specific variables. Each variable hopefully can increase the R-square which gives more reliability to the research.

Secondly the researcher suggests for further research to conduct their research only on Islamic full-fledged with additional dependent variable of Return on Equity. This might increase the relevancy and the reliability of the research on determinants of Islamic banking profitability.

Thirdly, it is suggested for future research to decrease the year range in order to be able to measure all of the variables completely without being burdened by the unavailability of the data that should have been provided to the financial reports.

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APPENDICES

Appendix 1

List of Indonesian Full-fledged Islamic Banks from 2011-2016

No	**Name**	**Categories**
1	PT. Bank Muamalat Indonesia	Full-Fledge Bank
2	PT. Bank Victoria Syariah	Full-Fledge Bank
3	PT. Bank BRI Syariah	Full-Fledge Bank
4	PT. Bank Jabar Banten Syariah	Full-Fledge Bank
5	PT. Bank BNI Syariah	Full-Fledge Bank
6	PT. Bank Syariah Mandiri	Full-Fledge Bank
7	PT. Bank Mega Syariah	Full-Fledge Bank
8	PT. Bank Panin Syariah	Full-Fledge Bank
9	PT. Bank Syariah Bukopin	Full-Fledge Bank
10	PT. BCA Syariah	Full-Fledge Bank
11	PT. Maybank Syariah Indonesia	Full-Fledge Bank
12	PT. Bank Tabungan Pensiunan Nasional Syariah	Full-Fledge Bank

List of Indonesian Islamic Window Banks from 2011-2016

No	Name	Categories
1	PT Bank Danamon Indonesia, Tbk	Islamic Window
2	PT Bank Permata, Tbk	Islamic Window
3	PT Bank CIMB Niaga, Tbk	Islamic Window
4	PT Bank OCBC NISP, Tbk	Islamic Window
5	PT Bank Sinarmas	Islamic Window
6	PT Bank Tabungan Negara (Persero),	Islamic Window

	Tbk	
7	PT BPD DKI	Islamic Window
8	PT BPD Daerah Istimewa Yogyakarta	Islamic Window
9	PT BPD Jawa Tengah	Islamic Window
10	PT BPD Jawa Timur, Tbk	Islamic Window
11	PT Bank Aceh	Islamic Window
12	PT BPD Sumatera Utara	Islamic Window
13	PT BPD Sumatera Barat (Nagari)	Islamic Window
14	PT BPD Riau dan Kepulauan Riau	Islamic Window
15	PT BPD Sumatera Selatan dan Bangka Belitung	Islamic Window
16	PT BPD Kalimantan Selatan	Islamic Window
17	PT BPD Kalimantan Barat	Islamic Window
18	PT BPD Kalimantan timur	Islamic Window
19	PT BPD Sulawesi Selatan dan Sulawesi barat	Islamic Window
20	PT BPD Nusa Tenggara Barat	Islamic Window

List of Malaysian Full-fledged Islamic Banks from 2011-2016

No	**Name**	**Categories**
1	Al-Rajhi Banking & Investment Corporation Berhad	Full-Fledge Bank
2	Asian Finance Bank Berhad	Full-Fledge Bank
3	Bank Islam Malaysia Berhad	Full-Fledge Bank
4	Bank Rakyat Malaysia	Full-Fledge Bank

5	Bank Muamalat Malaysia Berhad	Full-Fledge Bank
6	Kuwait Finance House Berhad	Full-Fledge Bank

List of Malaysian Islamic Window Banks from 2011-2016

No	**Name**	**Categories**
1	Affin Islamic Bank Berhad	Islamic Window
2	Alliance Islamic bank Berhad	Islamic Window
3	AM Islamic Bank Berhad	Islamic Window
4	CIMB (Bumi Putera) Islamic bank Berhad	Islamic Window
5	HSBC Amanah Malaysia Berhad	Islamic Window
6	Hong Leong Islamic bank Berhad	Islamic Window
7	Maybank Islamic Berhad	Islamic Window
8	OCBC Al-Amin Bank Berhad	Islamic Window
9	Public Islamic Bank Berhad	Islamic Window
10	RHB Islamic Bank Berhad	Islamic Window
11	Standard Chartered Saadiq Berhad	Islamic Window

Appendix 2

List of Dependent Variables and Internal Factors in Indonesia Islamic Full-fledged Banks 2011-2016

	ROA	Deposit Ratio	Financial Leverage	Liquidity Ratio			NPF	SSBS
			Debt/Total Asset	FDR	QR	CR		
Bank Muamalat Indonesia 11	0.015	0.130	0.912	0.130	0.140	0.617	0.018	7
Bank Muamalat Indonesia 12	0.015	0.945	0.908	0.792	0.140	0.709	0.018	7
Bank Muamalat Indonesia 13	0.005	0.184	0.872	1.000	0.235	2.740	0.008	8
Bank Muamalat Indonesia 14	0.002	0.000	0.882	0.841	0.282	0.705	0.048	8
Bank Muamalat Indonesia 15	0.002	0.250	0.787	0.903	0.502	0.656	0.042	8
Bank Muamalat Indonesia 16	0.002	0.919	0.751	0.951	0.499	0.696	0.014	9
Bank Victoria Indonesia 11	0.064	0.778	0.724	0.828	0.671	1.129	0.019	2
Bank Victoria Indonesia 12	0.014	1.000	0.688	1.354	0.382	1.053	0.024	2
Bank Victoria Indonesia 13	0.005	0.090	0.819	0.783	0.350	0.923	0.033	2
Bank Victoria Indonesia 14	(0.019)	0.058	0.823	0.952	0.124	0.695	0.048	2

Bank Victoria Indonesia 15	(0.024)	0.882	0.818	0.953	0.519	0.614	0.048	2
Bank Victoria Indonesia 16	(0.022)	0.880	0.741	1.007	0.446	0.562	0.044	2
Bank Rakyat Indonesia 11	0.002	0.914	0.884	0.906	0.314	0.698	0.022	5
Bank Rakyat Indonesia 12	0.012	0.244	0.001	0.922	0.229	0.890	0.021	5
Bank Rakyat Indonesia 13	0.012	0.259	0.825	0.093	0.210	0.886	0.033	8
Bank Rakyat Indonesia 14	0.001	0.276	0.833	0.939	0.764	1.142	0.037	4
Bank Rakyat Indonesia 15	0.008	0.903	0.831	0.842	0.616	0.868	0.039	4
Bank Rakyat Indonesia 16	0.010	0.909	0.795	0.814	0.694	0.899	0.032	4
Bank BJB Indonesia 11	0.012	0.815	0.779	0.755	0.683	0.983	0.004	7
Bank BJB Indonesia 12	0.007	0.135	0.786	0.727	0.627	0.864	0.021	7
Bank BJB Indonesia 13	0.009	0.151	0.789	0.952	0.458	0.857	0.012	4
Bank BJB Indonesia 14	0.007	0.096	0.860	0.937	0.651	1.239	0.039	5
Bank BJB Indonesia 15	0.003	0.838	0.730	1.048	0.799	1.087	0.045	5
Bank BJB Indonesia 16	(0.081)	0.882	0.733	0.987	0.847	1.241	0.049	5

Bank Negara Indonesia 11	0.013	0.875	0.800	0.722	2.940	0.957	0.024	6
Bank Negara Indonesia 12	0.015	0.222	0.844	0.749	1.463	0.765	0.014	6
Bank Negara Indonesia 13	0.014	0.290	0.777	0.907	0.361	1.031	0.011	6
Bank Negara Indonesia 14	0.013	0.212	0.847	0.926	0.851	1.137	0.010	6
Bank Negara Indonesia 15	0.014	0.904	0.839	0.919	0.836	0.989	0.015	6
Bank Negara Indonesia 16	0.014	0.912	0.856	0.846	0.820	0.983	0.016	6
Bank Mandiri Indonesia 11	0.020	0.159	0.884	1.063	0.460	0.659	0.010	8
Bank Mandiri Indonesia 12	0.023	0.169	0.881	1.121	0.288	0.855	0.011	8
Bank Mandiri Indonesia 13	0.015	0.172	0.887	1.052	0.321	0.874	0.023	7
Bank Mandiri Indonesia 14	0.002	0.123	0.898	0.819	0.665	0.890	0.043	7
Bank Mandiri Indonesia 15	0.006	0.913	0.888	0.820	0.720	0.892	0.041	7
Bank Mandiri Indonesia 16	0.006	0.142	0.892	0.792	0.644	0.724	0.031	7

Bank Mega Indonesia 11	0.016	0.393	0.885	0.814	0.099	1.053	0.018	7
Bank Mega Indonesia 12	0.038	0.259	0.868	0.857	0.119	1.094	0.013	7
Bank Mega Indonesia 13	0.023	0.667	0.848	0.908	0.081	1.145	0.015	7
Bank Mega Indonesia 14	0.003	0.191	0.827	0.936	1.006	1.111	0.018	7
Bank Mega Indonesia 15	0.003	0.843	0.768	0.985	1.068	1.213	0.032	7
Bank Mega Indonesia 16	0.026	0.827	0.802	0.952	0.985	1.103	0.028	7
Bank PANIN Indonesia 11	0.018	0.560	0.413	1.613	0.415	1.222	0.008	6
Bank PANIN Indonesia 12	0.033	0.287	0.573	1.227	0.697	0.886	0.002	6
Bank PANIN Indonesia 13	0.010	0.253	0.708	0.896	0.673	0.923	0.008	6
Bank PANIN Indonesia 14	0.020	0.827	0.307	0.940	0.156	0.400	0.003	6
Bank PANIN Indonesia 15	0.011	0.118	1.029	0.964	0.149	0.334	0.019	6
Bank PANIN Indonesia 16	0.004	0.116	0.859	0.920	0.303	0.472	0.019	6
Bank Bukopin Indonesia 11	0.005	0.939	0.839	0.836	0.216	0.792	0.015	5
Bank Bukopin Indonesia	0.006	0.250	0.788	1.525	0.172	0.790	0.043	5

12								
Bank Bukopin Indonesia 13	0.007	0.277	0.753	1.654	0.132	0.907	0.037	5
Bank Bukopin Indonesia 14	0.003	0.220	0.824	0.929	0.583	0.843	0.033	5
Bank Bukopin Indonesia 15	0.008	0.891	0.816	0.906	0.487	0.745	0.027	5
Bank Bukopin Indonesia 16	0.008	0.886	0.775	0.882	0.432	0.775	0.027	5
Bank BCA Indonesia 11	0.009	0.744	0.710	0.629	0.466	0.957	0	6
Bank BCA Indonesia 12	0.008	0.168	0.788	0.713	0.363	0.790	0.002	6
Bank BCA Indonesia 13	0.010	0.135	0.834	0.782	0.354	0.614	0	8
Bank BCA Indonesia 14	0.008	0.109	0.781	0.912	0.432	0.757	0.001	8
Bank BCA Indonesia 15	0.010	0.758	0.748	0.944	0.459	0.860	0.005	8
Bank BCA Indonesia 16	0.011	0.780	0.769	0.901	0.479	0.790	0.002	8
Bank Maybank Indonesia 11	0.036	0.462	0.207	2.854	0.578	2.165	0	5
Bank Maybank Indonesia 12	0.029	0.261	0.345	1.929	0.527	2.759	0.013	5
Bank Maybank Indonesia 13	0.029	0.233	0.425	1.470	0.875	2.244	0	7
Bank Maybank	0.036	0.210	0.426	1.578	1.432	2.034	0.043	7

Indonesia 14								
Bank Maybank Indonesia 15	(0.201)	0.567	0.539	1.105	1.663	2.020	0.049	7
Bank Maybank Indonesia 16	(0.095)	0.560	0.531	1.347	1.462	2.031	0.046	7
Bank BTPN Indonesia 11	(0.038)	1.038	0.456	0.898	0.400	1.260	0.002	4
Bank BTPN Indonesia 12	0.015	0.458	0.633	0.835	0.552	0.905	0.003	4
Bank BTPN Indonesia 13	0.001	0.227	0.815	0.853	1.307	0.836	0.004	5
Bank BTPN Indonesia 14	0.004	1.033	0.944	0.796	0.753	0.946	0.004	5
Bank BTPN Indonesia 15	0.052	0.776	0.940	0.965	0.939	1.260	0.002	5
Bank BTPN Indonesia 16	0.090	0.783	0.952	0.928	0.905	1.258	0.002	5

Appendix 3

List of Dependent Variables and Internal Factors in Indonesia Islamic Window Banks 2011-2016

	ROA	Deposit Ratio	Financial Leverage	Liquidity Ratio			NPF	SSBS
			Debt/Total Asset	FDR	QR	CR		
Bank Danamon Indonesia 11	0.134	0.602	0.492	1.208	0.289	1.0146	0.002	9
Bank Danamon Indonesia 12	0.096	0.460	0.082	9.038	0.288	0.4460	0.002	9
Bank Danamon Indonesia 13	0.151	0.517	0.537	1.312	0.203	0.4530	0.011	9
Bank Danamon Indonesia 14	0.031	0.313	0.747	0.926	0.152	0.2857	0.013	9
Bank Danamon Indonesia 15	0.026	1.000	0.787	1.176	0.066	0.1701	0.006	9
Bank Danamon Indonesia 16	0.034	1.000	0.915	1.002	0.070	0.2624	0.009	9
Bank Permata Indonesia 11	0.117	0.975	0.699	0.818	0.570	1.0024	0.018	7
Bank Permata Indonesia 12	0.684	0.976	0.678	1.017	0.684	0.9718	0.012	7
Bank Permata Indonesia 13	1.016	0.971	0.724	1.018	2.636	1.0162	0.003	5
Bank Permata Indonesia 14	0.012	0.238	0.756	0.891	0.220	0.8299	0.006	5

Bank Permata Indonesia 15	0.012	1.000	0.953	0.896	0.186	0.4357	0.011	5
Bank Permata Indonesia 16	(0.022)	1.000	0.178	0.837	0.269	0.4702	0.020	5
Bank CIMB 11	0.092	1.000	0.832	0.736	0.600	0.9464	0.007	8
Bank CIMB 12	0.422	0.311	0.843	0.976	0.845	0.9813	0.011	6
Bank CIMB 13	0.483	0.469	0.657	0.993	1.019	1.4494	0.016	9
Bank CIMB 14	0.016	0.376	0.799	0.956	0.784	0.9660	0.019	9
Bank CIMB 15	0.013	0.987	0.971	0.960	0.838	0.9615	0.004	9
Bank CIMB 16	0.030	0.976	0.921	0.956	0.921	0.7355	0.005	9
Bank OCBC 11	0.120	0.988	0.716	0.479	0.247	0.6649	0.006	4
Bank OCBC 12	0.178	0.828	0.595	1.073	0.178	0.4257	0.004	4
Bank OCBC 13	1.191	0.660	0.582	1.389	0.059	1.1912	0.004	4
Bank OCBC 14	0.018	0.635	0.481	0.936	0.037	0.4905	0.008	4
Bank OCBC 15	0.015	0.985	0.980	0.915	0.655	1.0155	0.016	4
Bank OCBC 16	0.017	0.984	0.906	0.636	0.781	1.5992	0.016	4
Bank Sinarmas 11	0.154	0.123	0.827	0.925	0.892	1.0083	0.008	6
Bank Sinarmas 12	1.120	0.195	0.677	1.340	1.120	1.1693	0.026	5
Bank Sinarmas 13	0.724	0.389	0.494	1.737	0.692	0.7244	0.021	5
Bank Sinarmas 14	0.010	0.307	0.764	0.839	0.425	0.4576	0.026	5
Bank Sinarmas 15	0.001	1.000	0.978	0.988	0.865	0.9691	0.005	5

Bank Sinarmas 16	0.028	0.976	0.923	0.967	0.792	0.9571	0.008	5
Bank Tabungan Negara 11	0.178	0.985	0.755	1.071	0.464	0.5981	0.011	6
Bank Tabungan Negara 12	0.471	0.342	0.751	1.009	0.471	0.6602	0.031	7
Bank Tabungan Negara 13	0.664	0.416	0.689	1.206	0.445	0.6636	0.030	7
Bank Tabungan Negara 14	0.011	0.336	0.785	1.089	0.556	0.6784	0.028	7
Bank Tabungan Negara 15	0.021	0.980	0.934	1.011	0.876	1.0200	0.004	7
Bank Tabungan Negara 16	0.025	0.979	0.933	0.946	0.812	1.0209	0.007	7
BPD DKI Jakarta 11	0.168	0.964	0.890	1.009	0.563	0.6047	0.025	6
BPD DKI Jakarta 12	0.597	0.646	0.449	1.921	0.597	0.6394	0.023	5
BPD DKI Jakarta 13	0.622	0.534	0.544	1.718	0.565	0.6224	0.015	5
BPD DKI Jakarta 14	0.036	0.455	0.647	1.290	0.246	0.2742	0.023	5
BPD DKI Jakarta 15	0.005	0.994	0.794	1.596	0.807	0.8103	0.028	5
BPD DKI Jakarta 16	0.024	0.975	0.917	1.086	0.862	0.9056	0.009	6
BPD DIY 11	0.772	0.975	0.537	1.544	0.646	0.8043	0.004	2
BPD DIY 12	0.254	0.472	0.580	1.158	0.761	0.8107	0.003	3
BPD DIY 13	0.028	0.429	0.604	1.153	0.552	0.8559	0.004	3
BPD DIY 14	0.035	0.442	0.586	1.389	0.663	0.8451	0.002	3
BPD DIY 15	0.053	0.965	0.943	1.139	0.708	1.0389	0.001	3
BPD DIY 16	0.048	0.967	0.943	1.127	0.700	1.0483	0.001	3
BPD Jawa Tengah 11	0.104	0.828	0.366	0.936	0.270	0.6214	0.001	9
BPD Jawa Tengah 12	0.652	0.708	0.419	0.830	0.652	0.6816	0.008	5

BPD Jawa Tengah 13	0.910	0.555	0.598	1.102	0.540	0.9097	0.007	5
BPD Jawa Tengah 14	0.028	0.494	0.639	0.886	0.577	0.7992	0.009	5
BPD Jawa Tengah 15	0.026	0.987	0.815	0.905	0.848	1.2136	0.013	5
BPD Jawa Tengah 16	0.026	0.991	0.854	0.951	0.494	1.1631	0.015	5
BPD Jawa Timur 11	0.105	0.997	0.666	0.949	0.392	0.7489	0.006	9
BPD Jawa Timur 12	0.212	0.344	0.686	1.083	0.635	0.7529	0.019	5
BPD Jawa Timur 13	0.253	0.343	0.692	1.113	0.530	0.7580	0.013	5
BPD Jawa Timur 14	0.009	0.141	0.885	0.510	0.265	0.8455	0.000	5
BPD Jawa Timur 15	0.000	1.000	0.975	0.538	0.466	1.0074	0.006	5
BPD Jawa Timur 16	0.001	0.999	0.947	0.555	0.727	1.0118	0.014	5
BPD Aceh 11	0.717	0.971	0.511	1.433	0.764	1.0178	0.021	2
BPD Aceh 12	0.605	0.625	0.507	1.376	1.209	1.3026	0.016	2
BPD Aceh 13	0.637	0.597	0.658	1.133	0.975	1.2745	0.010	2
BPD Aceh 14	0.028	0.521	0.234	113.550	1.040	1.3476	0.090	2
BPD Aceh 15	0.028	1.025	0.194	3.521	0.841	1.1617	0.040	2
BPD Aceh 16	0.005	0.8895	0.975	0.846	0.961	1.2331	0.001	2
BPD Sumatera Utara 11	0.097	0.979	0.745	0.877	0.385	0.7114	0.020	9
BPD Sumatera Utara 12	0.185	0.431	0.640	1.277	0.554	0.5919	0.013	9
BPD Sumatera Utara 13	0.190	0.517	0.512	1.666	0.435	0.5695	0.015	9
BPD Sumatera Utara 14	0.044	0.329	0.690	1.341	0.492	0.5955	0.124	9
BPD Sumatera Utara 15	(0.008)	1.007	0.990	1.206	1.013	1.1362	0.100	9
BPD Sumatera	0.002	0.998	0.904	1.088	0.988	1.1181	0.081	9

Utara 16								
Bank Nagari 11	0.434	0.979	0.365	2.601	0.942	0.9678	0.013	6
Bank Nagari 12	0.537	0.696	0.274	3.469	1.073	1.1059	0.013	6
Bank Nagari 13	0.561	0.595	0.376	2.526	1.089	1.1228	0.013	6
Bank Nagari 14	0.030	0.573	0.409	2.387	1.092	1.1037	0.005	6
Bank Nagari 15	0.052	0.949	0.855	2.013	1.098	1.1298	0.016	6
Bank Nagari 16	0.054	0.947	0.853	1.381	1.137	1.1615	0.015	6
BPD RIAU Kepri 11	0.325	0.981	0.645	0.974	0.699	1.0970	0.008	3
BPD RIAU Kepri 12	1.209	0.434	0.689	0.901	1.209	1.3026	0.002	4
BPD RIAU Kepri 13	1.022	0.370	0.730	1.029	0.787	1.0217	0.002	4
BPD RIAU Kepri 14	0.034	0.743	0.881	0.777	0.812	0.9992	0.003	4
BPD RIAU Kepri 15	0.017	0.994	0.887	1.126	0.213	0.3767	0.002	4
BPD RIAU Kepri 16	0.027	0.990	1.048	1.252	0.819	1.1641	0.001	4
BPD Sumsel Babel 11	0.223	0.973	0.495	1.341	0.593	0.9182	0.004	6
BPD Sumsel Babel 12	0.354	0.676	0.471	1.472	0.708	0.9265	0.048	6
BPD Sumsel Babel 13	0.479	0.668	0.460	1.288	0.551	0.9581	0.029	6
BPD Sumsel Babel 14	0.014	0.449	0.681	0.789	0.499	0.9534	0.052	6
BPD Sumsel Babel 15	0.007	0.992	0.974	0.667	0.551	1.0002	0.028	6
BPD Sumsel Babel 16	0.012	0.989	0.971	0.565	0.460	1.0058	0.015	6
BPD Kalimantan Selatan 11	0.177	0.978	0.694	0.887	0.579	0.9596	0.004	5

BPD Kalimantan Selatan 12	0.454	0.397	0.671	0.967	0.908	0.9713	0.014	5
BPD Kalimantan Selatan 13	0.458	0.380	0.690	0.937	0.583	0.9161	0.011	6
BPD Kalimantan Selatan 14	0.014	0.443	0.594	1.241	0.568	0.8038	0.105	6
BPD Kalimantan Selatan 15	0.008	0.993	0.982	1.254	0.817	0.9977	0.075	6
BPD Kalimantan Selatan 16	0.020	0.984	0.917	1.025	0.648	1.0737	0.054	5
BPD Kalimantan Barat 11	0.361	0.950	0.369	1.083	0.422	1.0470	0.000	3
BPD Kalimantan Barat 12	0.495	0.632	0.353	1.430	0.990	1.0194	0.000	2
BPD Kalimantan Barat 13	0.476	0.621	0.333	1.687	0.492	0.9512	0.001	2
BPD Kalimantan Barat 14	0.077	0.602	0.353	1.470	0.468	0.9764	0.001	2
BPD Kalimantan Barat 15	0.076	1.000	0.922	1.563	0.582	1.0725	0.001	2
BPD Kalimantan Barat 16	0.065	0.940	0.933	1.370	0.586	1.0590	0.003	2
BPD Kalimantan Timur 11	0.191	1.103	0.765	0.572	0.367	0.8574	0.013	3
BPD Kalimantan Timur 12	0.002	0.363	0.721	0.570	0.666	0.8999	0.043	3
BPD Kalimantan Timur 13	0.027	0.973	0.132	5.467	0.759	0.0169	0.022	3
BPD Kalimantan Timur 14	0.031	0.969	0.232	2.922	0.715	1.0262	0.026	3
BPD Kalimantan Timur 15	0.009	0.992	1.057	0.907	0.647	0.9950	0.024	3

BPD Kalimantan Timur 16	0.017	0.915	0.851	0.928	0.698	1.0858	0.034	4
BPD SulSel SulBar 11	0.487	0.696	0.351	3.408	0.939	1.1805	0.003	7
BPD SulSel SulBar 12	0.388	0.243	0.959	1.502	1.165	1.2426	0.005	7
BPD SulSel SulBar 13	0.400	0.346	0.869	1.555	0.807	1.2002	0.004	7
BPD SulSel SulBar 14	0.029	0.334	0.885	1.715	0.823	1.2204	0.002	7
BPD SulSel SulBar 15	0.052	1.000	0.696	1.350	0.888	1.2378	0.001	7
BPD SulSel SulBar 16	0.041	0.959	0.876	0.984	0.776	1.1315	0.001	7
BPD NTB 11	1.470	0.602	0.356	1.470	0.558	1.0413	0.001	3
BPD NTB 12	0.051	0.575	0.401	1.341	1.071	1.0903	0.003	3
BPD NTB 13	0.030	0.729	0.510	1.183	0.680	1.0750	0.004	3
BPD NTB 14	0.022	0.473	0.927	1.497	0.702	1.0638	0.005	2
BPD NTB 15	0.040	0.966	0.891	1.176	0.660	1.0606	0.005	2
BPD NTB 16	0.034	0.965	0.962	1.040	0.692	1.0488	0.003	2

Appendix 4

List of Dependent Variables and Internal Factors in Malaysia Islamic Banks 2011-2016

	ROA	Deposit Ratio	Financial Leverage	Liquidity Ratio			NPF	SSBS
			Debt/Total Asset	FDR	QR	CR		
Bank Al-Rajhi 2011	0.047	0.886	0.910	0.658	1.313	1.859	0.040	14
Bank Al-Rajhi 2012	0.028	0.898	0.907	0.676	0.388	0.458	0.028	10
Bank Al-Rajhi 2013	0.048	0.894	0.915	0.775	0.236	0.261	0.007	10
Bank Al-Rajhi 2014	0.023	0.901	0.922	0.712	0.188	0.340	0.007	10
Bank Al-Rajhi 2015	0.025	0.900	0.918	0.742	0.186	0.205	0.005	10
Bank Al-Rajhi 2016	0.022	0.912	0.934	0.765	0.229	0.287	0.006	10
Asian Finance Bank 2011	0.027	0.804	0.804	0.478	1.079	0.999	0.053	18
Asian Finance Bank 2012	0.039	0.832	0.842	0.626	1.004	1.010	0.039	13
Asian Finance Bank 2013	0.037	0.836	0.835	0.680	0.982	0.756	0.022	13
Asian Finance Bank 2014	0.016	0.828	0.835	0.727	0.983	1.611	0.007	13

Asian Finance Bank 2015	0.014	0.805	0.814	0.709	0.989	0.994	0.009	13
Asian Finance Bank 2016	0.014	0.798	0.805	0.737	0.854	1.113	0.086	13
Bank Islam Malaysia 2011	0.020	0.913	0.945	0.465	0.290	1.553	0.027	23
Bank Islam Malaysia 2012	0.016	0.917	0.922	0.565	0.962	1.208	0.016	17
Bank Islam Malaysia 2013	0.034	0.922	0.939	0.590	0.819	0.269	0.012	17
Bank Islam Malaysia 2014	0.033	0.919	0.933	0.690	0.669	0.803	0.012	17
Bank Islam Malaysia 2015	0.030	0.919	0.910	0.757	4.160	4.242	0.011	17
Bank Islam Malaysia 2016	0.029	0.921	0.852	0.826	0.595	0.566	0.010	17
Bank Rakyat Malaysia 2011	0.060	0.885	0.864	0.785	0.087	5.481	0.022	13
Bank Rakyat Malaysia 2012	0.022	0.870	0.797	0.875	0.228	0.252	0.022	10
Bank Rakyat Malaysia 2013	0.040	0.864	0.807	0.856	0.250	0.122	0.023	10

Bank Rakyat Malaysia 2014	0.037	0.860	0.790	0.858	0.233	0.293	0.021	10
Bank Rakyat Malaysia 2015	0.030	0.852	0.041	16.803	0.368	0.393	0.019	10
Bank Rakyat Malaysia 2016	0.028	0.850	0.798	0.858	0.388	0.401	0.020	10
Bank Muamalat Malaysia 2011	0.088	0.926	0.892	0.439	0.949	1.421	0.031	16
Bank Muamalat Malaysia 2012	0.025	0.930	0.919	0.481	0.892	0.906	0.025	12
Bank Muamalat Malaysia 2013	0.028	0.924	0.924	0.532	0.824	0.399	0.026	12
Bank Muamalat Malaysia 2014	0.030	0.913	0.922	0.643	0.813	1.100	0.027	12
Bank Muamalat Malaysia 2015	0.023	0.918	0.928	0.644	0.708	0.732	0.026	12
Bank Muamalat Malaysia 2016	0.023	0.912	0.921	0.696	0.704	0.723	0.022	12

Kuwait Finance House 2011	0.033	0.858	0.866	0.593	0.248	1.024	0.076	18
Kuwait Finance House 2012	0.071	0.832	0.781	0.755	0.854	1.000	0.071	14
Kuwait Finance House 2013	0.040	0.832	0.780	0.820	0.833	0.771	0.060	14
Kuwait Finance House 2014	0.033	0.838	0.816	0.790	0.877	1.464	0.038	14
Kuwait Finance House 2015	0.011	0.846	0.843	0.781	0.871	0.953	0.033	14
Kuwait Finance House 2016	0.014	0.850	0.836	0.719	0.163	0.177	0.037	14

Appendix 5

List of Independent Variables and Internal Factors in Malaysia Islamic Window Bank 2011-2016

	ROA	Deposit Ratio	Financial Leverage	Liquidity Ratio			NPF	SSBS
			Debt/Total Asset	FDR	QR	CR		
Affin Islamic Bank 2011	0.009	0.916	3.504	0.180	0.374	2.511	0.002	19
Affin Islamic Bank 2012	0.016	0.944	0.950	0.462	0.613	0.620	0.016	15
Affin Islamic Bank 2013	0.016	0.943	0.945	0.519	0.586	0.601	0.022	15
Affin Islamic Bank 2014	0.017	0.939	0.960	0.587	0.512	0.539	0.012	15
Affin Islamic Bank 2015	0.017	0.929	0.847	0.812	0.642	0.702	0.015	15
Affin Islamic Bank 2016	0.018	0.924	0.792	0.984	1.800	2.496	0.008	15
Alliance Islamic Bank 2011	0.070	0.925	0.913	0.700	0.349	2.231	0.017	10
Alliance Islamic Bank 2012	0.018	0.916	0.930	0.728	0.668	0.674	0.018	6
Alliance Islamic Bank 2013	0.027	0.913	0.944	0.716	1.937	0.319	0.011	6

Alliance Islamic Bank 2014	0.023	0.915	0.926	0.731	0.663	0.894	0.009	10
Alliance Islamic Bank 2015	0.019	0.929	0.943	0.754	0.566	0.566	0.005	10
Alliance Islamic Bank 2016	0.017	0.917	0.931	0.767	0.582	0.583	0.011	10
AM Islamic Bank 2011	0.052	0.931	0.840	0.781	0.897	1.356	0.029	15
AM Islamic Bank 2012	0.026	0.031	0.002	15.707	1.025	1.132	0.026	11
AM Islamic Bank 2013	0.023	0.935	0.862	0.784	0.552	0.522	0.012	11
AM Islamic Bank 2014	0.021	0.933	0.841	0.825	0.523	0.597	0.014	11
AM Islamic Bank 2015	0.019	0.939	0.828	0.836	3.436	3.758	0.022	11
AM Islamic Bank 2016	0.022	0.931	0.814	0.879	0.657	0.710	0.022	11
CIMB Putera Islamic Bank 2011	0.032	0.955	0.967	0.674	0.485	1.948	0.026	21
CIMB Putera Islamic Bank 2012	0.023	0.954	0.949	0.680	1.403	1.495	0.023	16

CIMB Putera Islamic Bank 2013	0.020	0.946	0.944	0.752	0.418	0.443	0.009	16
CIMB Putera Islamic Bank 2014	0.020	0.936	0.932	0.781	3.191	3.401	0.013	16
CIMB Putera Islamic Bank 2015	0.019	0.934	0.854	0.865	6.299	6.768	0.011	16
CIMB Putera Islamic Bank 2016	0.018	0.938	0.833	0.849	0.416	0.463	0.010	16
Bank HSBC Amanah 2011	0.064	0.914	1.059	0.704	0.263	1.180	0.006	11
Bank HSBC Amanah 2012	0.005	0.914	1.008	0.693	0.931	0.957	0.005	8
Bank HSBC Amanah 2013	0.028	0.919	0.904	0.697	0.983	1.486	0.009	8
Bank HSBC Amanah 2014	0.026	0.920	0.863	0.744	0.886	0.947	0.015	8
Bank HSBC Amanah 2015	0.020	0.925	0.718	0.863	0.926	0.973	0.020	8

Bank HSBC Amanah 2016	0.021	0.907	0.675	1.067	0.923	0.979	0.026	8
Hong Leong Islamic Bank 2011	0.034	0.929	0.930	0.475	0.874	1.207	0.112	14
Hong Leong Islamic Bank 2012	0.109	0.946	0.915	0.601	0.677	0.702	0.109	10
Hong Leong Islamic Bank 2013	0.025	0.922	0.886	0.634	4.413	5.161	0.014	10
Hong Leong Islamic Bank 2014	0.025	0.917	0.847	0.697	0.776	0.816	0.012	10
Hong Leong Islamic Bank 2015	0.024	0.916	0.844	0.704	0.537	0.627	0.009	10
Hong Leong Islamic Bank 2016	0.012	0.893	0.849	0.726	0.586	0.630	0.008	10
Maybank Malaysia Islamic 2011	0.040	0.909	0.836	0.717	0.632	1.275	0.019	18
Maybank Malaysia Islamic 2012	0.007	0.950	0.949	0.706	0.482	0.567	0.007	10
Maybank	0.018	0.949	0.956	0.721	0.422	0.525	0.005	10

Malaysia Islamic 2013								
Maybank Malaysia Islamic 2014	0.018	0.951	0.956	0.769	0.372	0.446	0.005	10
Maybank Malaysia Islamic 2015	0.018	0.947	0.838	0.994	0.265	0.298	0.007	10
Maybank Malaysia Islamic 2016	0.017	0.950	0.774	1.056	0.656	0.721	0.006	10
OCBC Al-Amin 2011	0.061	0.942	0.911	0.612	0.768	0.911	0.580	10
OCBC Al-Amin 2012	0.005	0.932	0.918	0.672	0.594	0.611	0.005	7
OCBC Al-Amin 2013	0.027	0.941	1.142	0.585	0.550	0.781	0.009	7
OCBC Al-Amin 2014	0.020	0.942	0.945	0.710	0.488	0.496	0.021	7
OCBC Al-Amin 2015	0.025	0.933	0.025	26.859	0.749	0.754	0.020	7
OCBC Al-Amin 2016	0.025	0.926	0.831	0.759	0.843	0.852	0.022	7
Malaysia Public Islamic Bank 2011	0.040	0.928	0.950	0.687	1.327	1.641	0.009	17
Malaysia Public Islamic Bank 2012	0.009	0.922	0.922	0.746	0.468	0.473	0.009	13

Malaysia Public Islamic Bank 2013	0.021	0.925	0.932	0.713	0.481	0.603	0.009	13
Malaysia Public Islamic Bank 2014	0.019	0.930	0.930	0.717	0.418	0.423	0.009	13
Malaysia Public Islamic Bank 2015	0.017	0.935	0.938	0.741	0.340	0.344	0.007	13
Malaysia Public Islamic Bank 2016	0.018	0.928	0.933	0.804	0.258	0.261	0.006	13
RHB Islamic Bank 2011	0.031	0.941	0.949	0.593	0.548	2.030	0.044	19
RHB Islamic Bank 2012	0.026	0.934	0.959	0.652	0.374	0.482	0.026	15
RHB Islamic Bank 2013	0.015	0.930	0.925	0.684	0.422	0.847	0.023	15
RHB Islamic Bank 2014	0.015	0.938	0.934	0.749	0.357	0.394	0.013	15
RHB Islamic Bank 2015	0.013	0.943	0.795	0.882	0.420	0.451	0.012	15
RHB Islamic Bank 2016	0.014	0.939	0.778	0.904	0.329	0.347	0.012	15

Appendix 6

List of External Factors in Indonesia and Malaysia 2011-2016

	Inflation	Gross Domestic Product Growth
Indonesia 2011	0.038	0.062
Indonesia 2012	0.043	0.060
Indonesia 2013	0.077	0.056
Indonesia 2014	0.084	0.050
Indonesia 2015	0.034	0.048
Indonesia 2016	0.030	0.051
Malaysia 2011	0.032	0.053
Malaysia 2012	0.016	0.024
Malaysia 2013	0.021	0.047
Malaysia 2014	0.032	0.060
Malaysia 2015	0.021	0.050
Malaysia 2016	0.021	0.042