



**UNIVERSITI PUTRA MALAYSIA**

***DETERMINANTS OF SUKUK'S LIQUIDITY LEVEL IN MALAYSIA USING  
LATENT LIQUIDITY MEASURE***

**WAN NURHANAN BINTI WAN SUHAIMI**

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**Master of Science (Economy)  
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**By**

**WAN NURHANAN BINTI WAN SUHAIMI**

**Thesis Submitted to the School of Graduate Studies, Universiti Putra  
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(Economy)**

**July, 2014**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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**July, 2014**

**Chair: Assoc. Prof. Dr. Rusmawati Binti Said, PhD**

**Faculty: Economics and Management**

Subprime crisis in 2008 has surged the vital importance of a steady liquidity level in the market. Theoretically, Islamic financial market's unique risk-sharing structure could provide some form of protection to its products and practitioners from being severely hit by the turmoil. Islamic bond, also known as sukuk, is the most popular component offered by the Islamic financial market. However, study on the liquidity level of sukuk in Malaysia shows a decreasing liquidity level by sukuk during the crisis period. The contradiction between the theory and actual figures provides a gap in knowledge, hence spurs this study to determine the drivers of sukuk liquidity level in Malaysia market and to possibly apprehend the pattern and preference of sukuk investors. We study the determinants of sukuk's liquidity level in Malaysia bond market using a measure known as "latent liquidity". The measure does not require much reliance on transaction data which makes it applicable to an illiquid market like Malaysia bond market. By utilising data from approximately more than 263 sukuk in Malaysia bond market, the study uses latent liquidity measure to examine the liquidity level of sukuk that maintain their trading activities throughout 2007-2012. The generated latent liquidity levels would then be used to determine the liquidity drivers for sukuk. Five bond characteristics (issuance amount, age, maturity, credit rating and coupon rate) are tested against sukuk's latent liquidity level, with four characteristics (issuance amount, age, maturity and coupon rate) are found to be significantly related to sukuk's liquidity level at 10% confidence level. On the other hand, the direction of correlation between issuance amount, maturity, age and credit rating variables towards liquidity is consistent with past literatures; issuance amount is positively related to liquidity while the other variables negatively correlated to liquidity. Sukuk investors' preference to lock in buy-and-hold position in amortising the return and also their keenness to match their long term liability with sukuk are two imminent behaviours of sukuk investors concluded from the findings. Such findings are believed to provide better apprehension on sukuk investors' behaviour and enable faster development in Malaysia Islamic financial system.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Sarjana Sains

## **PENENTU PARAS KECAIRAN SUKUK DI MALAYSIA MENGGUNAKAN KAEDAH LATENT LIQUIDITI**

Oleh

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Krisis kewangan pada tahun 2008 telah membuktikan kepentingan paras kecairan yang stabil di pasaran. Secara teori, dasar perkongsian risiko yang diamalkan oleh pasaran kewangan Islam seharusnya mampu untuk mewujudkan satu bentuk perlindungan sama ada terhadap produk-produk mahupun para pelabur dari terjejas ekoran krisis tersebut. Bon Islamik, juga dikenali sebagai sukuk, merupakan produk paling popular yang ditawarkan oleh pasaran kewangan Islam. Walau bagaimanapun, kajian ke atas paras kecairan sukuk di Malaysia menunjukkan penurunan sepanjang tempoh krisis tersebut. Percanggahan teori dan fakta telah menerbitkan satu jurang ilmu yang memangkin kajian ini untuk mencari penentu sebenar paras kecairan sukuk di Malaysia, dan secara tidak langsung memahami corak dan citarasa pelabur sukuk. Kami mengkaji penentu paras kecairan sukuk di pasaran bon Malaysia menggunakan kaedah kecairan *latent*. Kaedah tersebut tidak terlalu bergantung pada data transaksi, menjadikan kaedah tersebut sesuai diguna pakai di pasaran yang berkecairan rendah seperti Malaysia. Dari 263 sukuk di pasaran bon Malaysia, paras kecairan dikaji menggunakan sukuk yang mengekalkan transaksi mereka sepanjang 2007-2012. Paras kecairan *latent* yang terhasil kemudiannya digunakan untuk mencari penentu paras kecairan sukuk berdasarkan lima ciri-ciri bon iaitu jumlah penerbitan, umur, kematangan, kedudukan kredit dan kadar kupon). Empat ciri-ciri bon iaitu jumlah penerbitan, umur, kematangan dan kadar kupon) menunjukkan hubung kait penting terhadap paras kecairan sukuk pada 10% paras keyakinan, berbanding satu ciri tunggal iaitu kedudukan kredit. Di samping itu, arah hubung kait di antara jumlah penerbitan, umur, kematangan dan kedudukan kredit terhadap paras kecairan adalah konsisten dengan kajian-kajian ilmiah terdahulu; yang mana hubung kait positif ditunjukkan oleh jumlah penerbitan manakala pemboleh ubah-pemboleh ubah lain menunjukkan perkaitan yang negatif terhadap paras kecairan sukuk. Kecenderungan pelabur sukuk untuk menyimpan sukuk mereka bagi melunaskan jumlah pulangan di samping kecenderungan untuk memadamkan liabiliti jangka masa panjang mereka dengan sukuk merupakan dua strategi pelaburan yang mampu disimpulkan dari kajian ini. Kajian seperti ini dipercayai membolehkan pemahaman yang lebih mendalam terhadap citarasa pelabur sukuk dan perkembangan yang lebih pesat dijalankan terhadap sistem kewangan Islam di Malaysia.

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Bunches of love and thanks for my family for their love and constant support. Thank you for being my force. Thank you for putting up with me in times when I cannot even stay put. Thank you for being there with me when it is actually hard to be where I was.

*“I complain of my grief and sorrow to ALLAH and I know from ALLAH that you know not” {12:86}*

My appreciation also goes to my friends who were always there with me. Life is hard, the emotional voyage was turbulent, but this is our journey. Laughing the jokes and bearing hardship together, we do not realize how beautiful the bond that we have formed. Ultimately, my thanks goes to those who have contributed to my study, be it directly or indirectly.

*“Then which of the favours of your Lord will ye deny” {55:13}*



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## LIST OF ABBREVIATIONS

AAOIFI Institutions	Accounting and Auditing Organisation for Islamic Financial
BNM	Bank Negara Malaysia
FE	Fixed Effect Regression Model
GDP	Gross Domestic Product
IILM	International Islamic Liquidity Management Corporation
LL	Latent Liquidity
LOT	Lesmond, Ogden and Trzcinka liquidity measure
MDS	Middle Distillate Synthesis by Shell
RAM	Rating Agency Malaysia
RE	Random Effect Regression Model
RM	Ringgit Malaysia
S&P	Standard & Poors
US	The United States of America

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## CHAPTER ONE

### INTRODUCTION

#### 1.0 Introduction

This chapter discusses the important elements of sukuk that determine the direction of the study. The study starts with a discussion on the definition and background of sukuk, the Shariah principles and the Islamic finance. This is followed by problem statements where issues regarding sukuk's liquidity are being explored and explained. Based on the problem statement, the research is set to study the liquidity level of sukuk and its determinants. Issues and explanations pertaining sukuk, its liquidity level and determinants are deliberately conveyed as to make way for relevant and sensible problem statements and objectives for the study. The contributions from the study are clarified in justifications of study section.

#### 1.1 Background of Research

One of the most popular Islamic financial products is Sukuk – the Islamic version of the conventional bond. According to Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), Sukuk can be defined as: “..certificates of equal value representing, after closing subscriptions, receipt of the value certificates and putting it to use as planned, common title to shares and rights in tangible assets, usufructs and services, or equity of a given project or equity of a special investment activity”. In simpler words, Sukuk is just like the conventional bond but it complies with the Shariah regulations and follows certain Islamic principles for its funding process. In this paper, the term Islamic bond and Sukuk will be used interchangeably hereon.

While the similarities between sukuk and conventional bonds are quiet apparent, the main different lies in the fact that sukuk is asset-based, not just derivatives like those of conventional bonds. Sukuk complied to the Shariah law with the enforcement of an underlying asset in its contract. By this, the interest (*riba*) term in conventional bond is replaced by shared revenue generated by the underlying asset in sukuk. As being explained by Hanafi *et al.* (2006), “before a debt (Sukuk) could be sold or negotiated, there must be an underlying contract of sale and purchase involving real tangible assets at the beginning of the process”. The real tangible asset underlying sukuk contract makes sukuk different from the conventional securities, as conventional bonds permit the use of artificial assets as the underlying asset. As such, money creation out of money is allowed in conventional bonds but highly objected in sukuk. The asset-based requirement in sukuk provides a closer linkage between financial transactions and the real economic activities compared to conventional bonds, hence contribute to a more stable financial and economic condition. The noble ethical foundations governed by the Shariah law is served to protect the customer, banks, institutions, economy and also the society at large from any major fluctuations.

Sukuk was first brought forward into the Malaysian economy back in 1997, with the first sukuk offered by Shell Middle Distillate Synthesis (MDS) at RM125 million. According to Ahmad and Radzi (2011), Malaysia sukuk market plays an important role in financing the economy as it accounts more than half of the country's total



debt, regardless in term of balance outstanding and issuance. Rosly (2005) states the remarkable welcome by both the Muslim and the non-Muslim community in Malaysia towards sukuk, as being proven by the growing number of projects being financed by sukuk such as the construction of the Kuala Lumpur International Airport, Putrajaya and KL Sentral. Rosly (2005) reasons the remarkable acceptance by both communities towards sukuk is due to its structure that is considered attractive to the investors in general. This includes the ability of sukuk to meet the standard sense of investment offered by the conventional bond, in addition to the more stable securitization principle in sukuk.

Capability of sukuk to provide a more convincing investment option is the result of the Shariah principles governing the sukuk issuance. Basically, Shariah principles cover every instrument offered under the Islamic financial market, and not only restricted to sukuk. The principles are taken from the Quran and Sunnah (saying and actions by Prophet Muhammad SAW), Rosly (2005). The dimensions of Shariah are embodied into the rules and regulations governing any Islamic transactions, in which prohibition of *riba* (interest), *gharar* (ambiguities), *maysir* (gambling) and also involvement with prohibited industries such as pork, alcohol and phonography are being implemented. Involvement with these elements is considered as non-compliant to the Shariah and deemed as *Haram* (forbidden) and sinful in Islam.

In order to ensure the compliancy of Islamic product with the Shariah principles, a Shariah supervisory board was established in 1990. Prior to the introduction of the Shariah supervisory board, the Muslim community in Malaysia has limited access to Shariah compliant products mostly due to the existence of *riba* (interest) element. Literally, Rosly (2005) defines *riba* as “to increase, to grow, to rise, to swell”. In this regards, *riba* is what that is gained without taking any risk or putting an effort equivalent to the return that is about to be received.

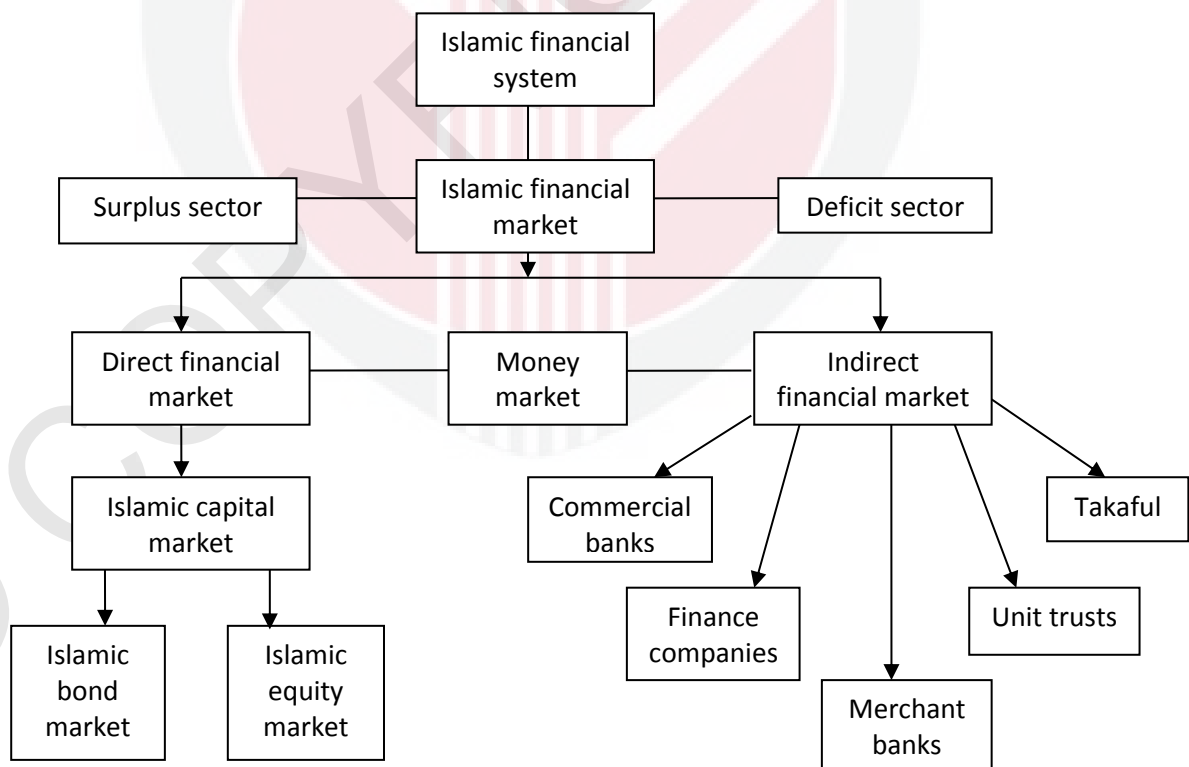
Islam prohibits *riba* as it is deemed as an injustice mean of profit and wealth creation, in which a price paid by an investor is not compensated with an equitable return that he should get from the investment. Islam strongly enjoins that any profit should rise from two elements; risk taken and amount of effort put into the exchange. Unfair exchange would only enable concentration of wealth in the hand of a few people and threaten social welfare and stability. For an example, a creditor with an initial investment amount of RM1000 and gains a return of RM1500 without holding any risk or performing any value added service to the debtor. The extra RM500 return is deemed as to contain *riba* by Muslim jurists because the transaction does not follow the theory of profit proposed by the Shariah. However, inequality and uncertainty elements have become common fixtures in the fixed-income market. This is mostly due to the fact that conventional bonds yield interest (*riba*) (Bassens, Derudder & Witlox, 2011; Hayat & Kraeussl, 2011). Inability of the conventional bond to comply with Shariah law in its operation has made investors turn to Islamic finance for Shariah permissible products. This gives rise to the birth of the Islamic financial sector.

Islamic finance sector has become prominently popular within the past few decades, as profusion of Islamic complied investment products are being introduced. The global market has been focusing on Islamic financial system as a more efficient

alternative as compared to the current financial system. Standard & Poors (S&P) in 2011 estimate the global Islamic finance industry to grow by 20 per cent annually to around USD2 trillion by 2015, a double increment from USD1 trillion in 2011. Likewise in Malaysia, where the Islamic financial market runs in parallel with its conventional counterpart, hence expectation is growing high for a more robust expansion of Islamic capital market in the coming years.

Before embarking further, we first indulge into the meaning and objective of an Islamic financial market. According to Rosly (2005), in essence, financial markets (both conventional and Islamic markets) are basically defined as a set of regulations pertaining the transfer of fund from one deficit borrowing party to the other surplus lender party. The financial market channels any available funds through two markets; the capital market and the money market. While money market deals with short term investments, capital market deals with long term investment, hence capital market is much more prone to market risk and volatilities. The demand and supply in the capital market runs on the basis of debt and equity contracts, with the funds traded in capital market make the construction of factories, highways, schools and homes become feasible.

Figure 1.1 below illustrates the structure of Islamic financial system in general. From the basis, it is passable to say that Islamic capital market operates in a similar fashion as the conventional market. However, closer study would show that Islamic capital market differs from the conventional market in regards to the rules governing Islamic capital market.



**Figure 1.1: Islamic Financial System, Rosly (2005)**

In Malaysia, the vigorous demand for Shariah compliant products by the Muslim community has become a catalyst for the development of its Islamic capital market. The government of Malaysia has also been very committed to support the development of sukuk market by providing administrative, infrastructure and fiscal policies facilities to flourish the vibrant Malaysia sukuk market. In analysing sukuk's performance, Malaysia is an ideal instance as it is by far the most active in terms of corporate sukuk issuance, (Godlewski *et al.*, 2013).

As shown in Table 1.1, issuance of sukuk from 2005 to 2011 rose by 17%<sup>1</sup>, in comparison to conventional bond which rose only by a mere 1.08%<sup>2</sup>. Table 1.1 also shows that sukuk issuance makes up more than one third of the total bond issuance in Malaysia at 38.58% in 2011, more than fivefold increment from 6.78% in 2005. From these figures, it is evident that sukuk has formed a prominence composition in Malaysia bond market and has steadily risen in its issuance magnitude over the years.

**Table 1.1: Growth of Conventional and Islamic Bond Issuance Composition in the Market, 2005-2011**

Year	Conventional bond issuance (MYR 'mill)	Conventional bond issuance as percentage of total issuance (%)	Sukuk issuance (MYR 'mill)	Sukuk issuance as percentage of total issuance (%)
2005	27,500.00	93.22	2,000.00	6.78
2006	26,600.00	73.68	9,500.00	26.32
2007	44,080.89	81.51	10,000.00	18.49
2008	43,500.00	72.50	16,500.00	27.50
2009	60,000.00	67.80	28,500.00	32.20
2010	37,100.00	63.86	21,000.00	36.14
2011	57,312.35	61.42	36,000.00	38.58

Source: Bank Negara Malaysia (2012)

Similarly, it is also interesting to note the link between sukuk and Malaysian economy. Higher portion of sukuk in Malaysia's Gross Domestic Product (GDP) as being shown in Table 1.2 illustrates the bigger importance of sukuk towards Malaysia's economy. In term of percentage of GDP, sukuk contribution between 2005 until 2011 in Malaysia consistently increases at 78.64%<sup>3</sup>. This shows that sukuk market ranks an importance amongst investors in Malaysia. Therefore, this study is believed to be a help for investors in making their investment decision.

**Table 1.2: Sukuk as Percentage of GDP in Malaysia, 2005-2011**

Year	GDP (RM 'mil)	Sukuk outstanding amount	
		Size (RM 'mil)	% of GDP
2005	522,445.00	120,120.98	22.99
2006	574,441.00	146,440.65	25.49
2007	642,048.00	199,445.58	31.06
2008	740,906.00	211,369.03	28.53
2009	679,688.00	248,471.05	36.56

<sup>1</sup>  $((RM36,000.00 - RM2,000.00) / RM2,000.00) * 100 = 17\%$

<sup>2</sup>  $((RM57,312.35 - RM27,500.00) / RM27,500.00) * 100 = 1.08\%$

<sup>3</sup>  $((41.07\% - 22.99\%) / 22.99\%) * 100 = 78.64\%$

2010	765,966.00	294,186.06	38.41
2011	852,734.00	350,242.21	41.07

Source: Bank Negara Malaysia (2012)

Existence of sukuk in the market manages to promote a more diversified investment platform for investors, most notably the Muslim investors. Similar to the conventional bonds, the funds raised from sukuk are used for development projects and simultaneously used to enhance a more stable capital mobilisation within the economy. Hence, it could be said that sukuk helps to smoothen the capital market workflow.

By capital market, we consider two sub-markets in the capital market; characterised by the number of times a security is traded. The two markets are illustrated in Figure 1.2 below, where newly issued sukuk is under the primary market while sukuk that is transacted for the second time onwards falls under the secondary market.



**Figure 1.2: Function of Primary and Secondary Sukuk Market**

While figures in Table 1.1 have proven Malaysia Islamic primary market’s excellence in term of innovative product creations and massive issuance, very little buzz is heard of its secondary Islamic capital market. This is despite the fact that the well-being of a primary market relies heavily on the development of a sustainable and robust secondary market. Just like the conventional investors, Islamic savers and investors have varying risk preferences and an efficient Islamic secondary market must be developed in order to provide Islamic investors the investment tools they need. In addition, sukuk certificate holders also carry the burden of risks arising from the nature and functions of the asset underlying the certificate. This further proves the dire need for a well-developed Islamic secondary market especially in Malaysia’s quest to become a renowned financial hub.

In spite of the urgency for a well-developed secondary market, the main concern of an Islamic secondary market is its marketability. Ironic enough, having more sukuk issuance in the primary market does not guarantee a liquid secondary market for sukuk. All things being equal, a certificate holder would only consider to participate in a well-structured and well regulated secondary market instead of dealing in a poorly run market. A well running market enables the investor to liquidate his investments as efficiently as possible. Information efficiencies ensure investors to make well informed decisions about the trade and lead to more accurate price transparencies. From another perspective, higher number of traders implies a better liquidation opportunities and wider access to more powerful market signals. Malaysia in this context is already successful considering the massive sukuk issuance

in its market over the years. The question now lies on the secondary market for sukuk.

The ideal structure of an Islamic secondary market is a market where several groups of individuals liquidate substantial proportions of assets into tradable securities. This is when the liquidity issue arises, as assets that are deemed to be more liquid is more attractive in the secondary market and considered as an important factor in the evaluation of an asset. In addition, Bank Negara Malaysia also plays the role as a fund allocator and most importantly to provide supervision on the operations running in the Islamic secondary market.

**Table 1.3: Sukuk Annual Market Liquidity in Malaysia, 2005-2011**

Year	Sukuk annual turnover (RM 'mil)	Sukuk average outstanding (RM 'mil)	Sukuk market liquidity (%)	Change (%)
2005	160,924.35	108,111.49	148.85	71.41
2006	193,778.33	133,280.81	145.39	-2.32
2007	216,783.58	172,943.11	125.35	-13.78
2008	177,319.52	205,407.30	86.33	-31.13
2009	160,351.30	229,920.03	69.74	-19.22
2010	248,773.74	271,328.55	91.69	31.47
2011	546,226.15	322,214.13	169.52	84.88

*Source: Bank Negara Malaysia (2012)*

In Table 1.3 above, the trend of sukuk liquidity level in Malaysia from 2007 to 2012 is shown. As being explained, the average outstanding amount of sukuk increases nonchalantly over the period, proving our claim of a stout primary market in Malaysia. However, the annual turnover amount of sukuk does not increase proportionately with the outstanding amount, causing low liquidity values for a few years in the study. Again, these figures support our premise of a puny secondary sukuk market. Further description on the figures will be provided in Section 1.2 afterwards.

## **1.2 Problem Statement**

Research on sukuk is prominence not only due to its fresh existence, but also for its explosive importance towards the world economy. Sukuk's sturdiness in weathering a few market challenges such as investors' sentiments and the recent 2008 financial crisis has captured the heart of the financial world. Hence, the study on issue pertaining sukuk's liquidity is deemed as a major innovation in the growing financial segment, and also provides a substantial contribution in the literatures involving sukuk and Islamic finance. Needless to say, Islamic financial market, sukuk in particular, is still small as compared to the conventional market. The industry is considered to be in the early stages of its life cycle, with new breakthrough comes with every new issuance. However, the 2008 financial breakdown in America has helped to accelerate the steadfast growth in Islamic finance, in which Islamic finance being viewed as a more credible alternative. Standard & Poors (S&P) has also put sukuk as the key factor for the boom in Islamic finance and economic growth over the financial crisis period. Tinoco and Wilson (2013) assert that the crisis originates from heavy reliance on interest-based debt financing, high leverage, inadequate market discipline, excessive and imprudent credit growth, investment in risky assets and speculations. Interestingly enough, all these factors provided by Tinoco and

Wilson (2013) are virtually refuted by the Shariah law underlying the Islamic financial instruments. Simply said, the financial turmoil is not affective on sukuk market much because their trades are based on Shariah, which means no interest involved in the transactions, no speculation is allowed and no loans are permitted among banks. For this, we assume the robustness of sukuk structures in shielding the effects of the frantic financial woes back in 2008.

In 2008, despite the fact that bond helps to improve a country's economic well-being, economic woes that took place in America, Greece, Portugal, Spain and Italy holds bond's illiquidity as one of the causes. Liquidity of bond has been the main issue during the turmoil; before sukuk being championed as the better alternative for the "ailing" bond. Yet again, while sukuk is being put forth as the unconventional solution for bond, sukuk also has its own liquidity issues just like its conventional counterpart. Even though there exist extensive studies on sukuk issuance and outstanding amount in the primary market, relatively little research focuses mainly on secondary sukuk market. As being presented in Table 1.3 in Section 1.1, it could be seen that sukuk poses higher liquidity level as compared to conventional bond liquidity level prior the financial crisis (between 2005-2006). However, as soon as the crisis took off in February 2007, sukuk's liquidity level suffered negative growth during the financial crisis.

To support our claim of an affected sukuk market in 2008, a virtually similar phenomenon could be observed in Gulf Corporation Council countries, whereas the issuance amount drops from USD 20 billion in 2007 to a mere USD 10 billion in 2008. The critical plunge is also experienced by the overall sukuk issuing Southeast Asian nations, for which sukuk issuance drops from USD 27.375 billion in 2007 to USD 6.57 billion in 2008. Although these figures picture the fluctuations in the issuance volume as opposed to our liquidity theme, yet it shows the downfall in sukuk market. Obviously, despite the confidence over its stoutness to weather financial the crisis, sukuk market is also affected by the turmoil.

Only after the crisis ended in late 2009, sukuk liquidity level rose by over 40% from the previous liquidity level while the conventional bond only experiences moderate growth. These figures are quite puzzling as the underlying principles of profit and risk sharing in the Islamic financial products and the requirement for a real asset to back the agreement should make the industry more resilient to the turmoil. Furthermore, Bank Negara Malaysia has taken initiative by launching the International Islamic Liquidity Management Corporation (IILM) in 2010 to enhance the liquidity level in the Islamic financial market in Malaysia. As a result, a boom in sukuk market's liquidity level in 2011 could be observed, in which an increment of over 80% in 2011 from the previous year.

For this gap in knowledge, a deeper study to evaluate Malaysia sukuk's liquidity level by utilising a new measure called latent liquidity and also to identify determinants of its liquidity level would be necessary in order to provide better comprehension on the liquidity issue in sukuk. Fuelled by sukuk's different framework from the conventional bond, finding the determinants of sukuk liquidity level would enable a meaningful study on investor's behaviour towards the unique asset class.

### **1.3 Objectives of the Study**

The general objective of this study is to investigate the prominence of sukuk existence in Malaysia financial market and its liquidity level in Malaysia for the period between 2007 until 2012. The specific objectives are:

1. To measure and analyse the characteristics of sukuk's liquidity level between 2007-2012; and
2. To determine the determinants of sukuk's liquidity level in Malaysia capital market.

### **1.4 Significance of Study**

Specifically, the study aims to evaluate the liquidity level of sukuk in order to observe any trends and fluctuations in the level, given the occurrence of a financial crisis in the study period. By linking the trend and a few sukuk characteristics, we would be able to provide some overview on the influencing factors for the liquidity pattern. Utilising a relatively new method known as latent liquidity to measure the liquidity level, it is believed the study not only pave ways for more studies on sukuk secondary market, but also on the latent liquidity method that is suitable for a study with scarce data resource like this study.

On the other hand, the study also seeks to find the determinants for sukuk liquidity level by making use the random regression model, by which five sukuk characteristics are taken into assessment. The result gained from the valuation could give an indication on the key factors affecting sukuk liquidity level, hence letting researchers and investors get better comprehension and strategies in sketching their studies and investment in sukuk. The study joins the vast past literatures in finding the possible determinants for bond, with deviation for this study comes from the use of sukuk as the subject as compared to the conventional bond.

Generally, this study seeks to identify the edge factors of sukuk that distinguish it from its conventional counterpart, thus leading to a better comprehension pertaining sukuk. Better understanding would open the doors for further researches and efforts, and contribute towards standardization of sukuk that has long been waited.

By recognizing the level of liquidity that sukuk possess towards the market and the economy well-being, it is hoped the study could help to further promote sukuk as a good alternative for conventional bond. The information gathered in the research will assist the issuer and the government in identifying the areas where they can improve their services and at the same time will help them in offering products that are tailored to the needs of the investors. The government would be able to implement measures that might be able to create a more opportunity for sukuk in the economy. With this, the market for sukuk will expand and make way for an improved Islamic economic field, at par with the current conventional economy of the world.

### **1.5 Organisation of Thesis**

The thesis is organised into six chapters. Chapter One is about the general background of the Islamic financial system and sukuk under the study. The problem statement is also being discussed in this chapter, where a gap in the existing data pertaining sukuk's liquidity level and its theoretical stoutness is being elaborated with figures provided in Table 1.3. Significance of the study towards the financial

literatures and the general Islamic field is discussed in Chapter One. Chapter Two presents some preliminary analysis on sukuk data, with the aim to show the prominence of sukuk in Malaysian economy and the illiquid level of Malaysia sukuk market. The chapter acts as an indicator on the current sukuk outstanding, liquidity and contribution towards Malaysia's economy illustrated as percentage of annual GDP.

Chapter Three provides review of some earlier relevant studies in accordance to the thesis. The chapter starts with an overview on the theoretical framework on the working of sukuk. In contrary to other studies regarding sukuk, the theoretical framework provided in this study focuses on the working of sukuk and the overall economy, instead of the working of the underlying Shariah principles of sukuk like most studies have provided. Afterwards, the chapter dive in literature review on each of the sukuk characteristics taken into study such as issued amount, coupon rate, age, credit rating and maturity. This is followed by a literature overview on the latent liquidity and a few other liquidity measures in the literature, with an overview on the random regression model follows suit in the later part of the chapter. Finally, the chapter concludes with a review on the data used in studies encompassing bond liquidity.

Chapter Four discusses the methodologies used in the study, including identification of key data, relevant methods and analysis in order to measure sukuk's liquidity level and its determinants. The methods utilised in the study are the latent liquidity and random effect regression model, while the key data to be assessed are the sukuk issued amount, maturity, age, coupon rate and credit rating.

The empirical results are presented in Chapter Five. It includes a descriptive analysis on the generated latent liquidity level for the sukuk under study and the chosen sukuk characteristics as the determinants of sukuk's liquidity level in Malaysia sukuk market. Trends of liquidity over the study period are discussed, before comparing the trends with those of sukuk characteristics under the study. In the random regression that follows, four variables (issuance amount, maturity, coupon rate and age) are found to be significant drivers of sukuk's liquidity level. The final chapter presents the summary and concluding remarks regarding the study, and also provides some suggestions for future study.



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