

Why Do Firms Issue *Sukuk* Over Bonds? Malaysian Evidence

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ABSTRACT

Sukuk are dominating the Malaysian capital market with strong support from government, mega conglomerates and firms. *Sukuk* as an important source of firms' financings are increasingly catching up with the conventional bonds in terms of volume of transactions and number of *sukuk* issuances. The objective of this paper is to identify the determinants of firms in issuing *sukuk* over conventional bonds. It is important to identify the determinants of firms in issuing *sukuk* whether it is from firms' internal initiatives or induced by external incentives. The variables under observation are: capital investment, firm size, return on asset, market to book ratio, past *sukuk* issuance experience and past bonds issuance experience. By introducing the elements of leverage and tax incentives in the firms' determinants to issue *sukuk* over conventional bonds, more indicators are identified as factors attracting firms to participate in the *sukuk* market. A pooled combination of cross sectional and time series model that incorporates fixed effect, random effect for both time and specific correlation are deployed. The technique used is two stage least square analyses under the Ordinary Least Square (OLS) and panel data regression technique. The sample consists of 79 listed firms on Bursa Malaysia issuing both bond and *sukuk* in 2001 to 2010. Firm sizes, past *sukuk* issuance experience and tax incentives are significant in explaining the firm's determinants to issue *sukuk* over conventional bonds. There should be an intensive and comprehensive plan to encourage firms to issue *sukuk* based on the determinants identified. However, there are more room for improvements in terms of regulatory framework and facilitative infrastructure to speed up the growth of *sukuk* market in Malaysia.

Keyword: bond; capital structure; Islamic capital market; Malaysia; sukuk

INTRODUCTION

Sukuk are one of the fastest growing instruments in the Islamic capital market. Financial Times Special Reports (2010) had documented rapid growth of Islamic capital market with the estimated value exceeding \$1 trillion and much of this expansion has been fuelled by *sukuk* issuance (Godlewski et al. 2011). In 2007 the world *sukuk* issuance was USD 47 billion (Nagano 2010). Malaysia's *sukuk* market, as part of the larger bond market, may be considered a late bloomer compares to the banking and equity market. Based on RAM Rating Services Berhad (2011), although the *sukuk* market already in existence as early as the 1980s, Malaysia's bond market had long remained largely concentrated on public or Government-sponsored debt issues, rather than the private debt market. The market is only picked up momentum with the setting up of the national mortgage corporation, Cagamas Berhad by Bank Negara Malaysia in 1986.

Based on data provided by IFIS, Shell MDS (Malaysia) issued the world's first ringgit *sukuk* issuance in 1990 worth RM150 million *Bai Bithaman Ajil* Islamic Debt Securities. But starting from year 2001 after the first global corporate *sukuk* issuance by Guthrie Malaysia, the market begins to taking flight on the world. In June 2002, the Malaysian Government issued the world's first sovereign *sukuk*, valued at USD600 million. This *Ijarah Sukuk* had been well received, garnering an impressive constellation of investors spanning across Asia, the Middle East, Europe and the United States. Corporate *sukuk* broaden the firm's financing base away from traditional sources of fund (such as bank loans and lines of credit that are saved for other strategic investment).

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The Islamic capital market in Malaysia has emerged as a significant area of growth. It has the full complement of products, infrastructure, institutions, intermediaries and investors that contributing to the development of the capital market. For instance, the growth of *sukuk* market has impressively as one of the resource funds for firms. According to Nagano, the total funding volume by *sukuk* issuance as recorded in the London market was as large as that in the Middle East countries. The growth of global *sukuk* market has shown in Appendix A.

Today, Malaysia has the world's largest *sukuk* market, accounting for about USD47 billion or two-thirds of the total outstanding *sukuk* throughout the world (RAM Rating Services Berhad 2011). The landmarks in Malaysia capital market with dominated by *sukuk* are shown in Appendix B. There are many factors contribute to the increasing trend of the *sukuk* market, among others, government supports and incentives, variety of *sukuk* schemes and structure and increase awareness of the firm decision makers about *sukuk* facilities. Abdullah (2011) mentioned that the development of Malaysian Islamic capital market is seen as a strategic measure in positioning Malaysia at the regional and global forefront and creating a competitive advantage for the country in the competitive global financial market dealings.

TABLE 1 illustrates funds raised in the Malaysian capital market via Private Debt Securities (PDS) which comprises of conventional and Islamic PDS (IPDS). IPDS or Islamic bonds (*sukuk*) issued by corporate bodies are essentially capital market debt instrument. Although *sukuk* already existed as early as the 1980s, Malaysia's bond market had long remained largely concentrated on public or government sponsored debt issues, rather than the private debt market (RAM Ratings 2008). It shows that the slow growing of IPDS from 2001 until 2004. The Islamic bonds issued in 2001 were mainly to finance large privatized projects such as water and power projects, which require higher capital outlays (Abdullah 2011).

< INSERT TABLE 1 >

As at November 2002, RAM Rating Services Berhad (RAM) has rated 87 IPDS issued worth RM36.7 billion compared with 549 conventional PDS totalling RM129.2 billion (BNM, 2002: Ismail; SC, 2002). During 2003, the trading of IPDS increased by 59.7%. This higher increase emanated from new issues of IPDS amounting to RM8.1 billion and strong trading sentiments in the first half of the year (Bank Negara Malaysia 2003). The IPDS picked up momentum in 2005 with 77 IPDS issued as compared to only 49 conventional bonds issued. From 2001 until 2004 the proportions of IPDS is increasingly closing the gap to PDS. As shown in TABLE 1, Islamic IPDS accounted for 53% of total issuances in 2006 in comparison to 47% PDS issued.

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From FIGURE 1, it can be interpreted that firms in Malaysia are migrating from issuing conventional bond to *sukuk* for the period 2005 to 2010 (except 2007 – 2008). However there is no study done on factors influencing firms to issue *sukuk* over conventional bonds. Hence, this paper will investigate the determinants of firms in issuing *sukuk* over conventional bonds. This paper describes the determinants of firms in issuing *sukuk* through an empirical analysis on secondary data gain from Securities Commission Malaysia (SC) and RAM Rating Services Berhad.

The organization of the paper is as follows: Part 2 outlays literature review on *sukuk* and background of Malaysian *sukuk* market in brief. Part 3 focuses on the theoretical framework. Part 4 explains the research method used in this study. Part 5 discusses the findings based on empirical analysis, and Part 6 concludes.

LITERATURE REVIEW

Sukuk Concept

Sukuk is the Arabic term for Islamic securities. The literal meaning of *sukuk* is certificate. According to International definition (Shari'ah Research Academy for Islamic Finance – ISRA 2011) *sukuk* are defined by the Accounting and Auditing Organization for Islamic Financial Institution (AAOIFI), in its *Shariah* Standard 17(2), investment *sukuk* (*Sukuk Istithmar*) as “certificates of equal value representing undivided shares in ownership of tangible asset, usufructs and services, assets of particular projects of special investment activity”. The Islamic Financial Services Board (IFSB), in its Capital Adequacy Standard (IFSB 2), defined *sukuk* as “certificates that represent the holder's proportionate ownership in

an undivided part of an underlying asset where the holder assumes all rights and obligations to such assets”, while, in SC Guidelines on Islamic Securities 2004, defined *sukuk* as a “document of certificate which represents the value of an asset”.

If we compare the three definitions above, SC has defined *sukuk* clearly and encompasses the other two definitions. According to SC definition, *sukuk* is a certificate that represents the value of an asset because *sukuk* as one of the Islamic financial instrument that is a wholesale asset-based capital market security (Ali Said 2011). There are, however, differences in the type of asset that can qualify under the global standard setting bodies’ (AAOIFI & IFSB) definition and the SC’s definition. The AAOIFI and IFSB do not recognize financial asset (i.e., receivables) as assets that would qualify to form the underlying assets of a tradable *sukuk*, such assets (ISRA 2011).

Sukuk explained in *hadith* and Islamic commercial literatures are limited, but a few references help to establish the root for *sukuk* and the transaction. There was reference mentioning the term *sukuk* recorded in *Al-Muwatta*’ by Imam Malik cited in ISRA (2011):

“Yahya related to me from Malik that he had heard that receipts (*sukuk*) were given to people in the time Marwan ibn al-Hakam for the produce of the market at al-Jar. People bought and sold the receipts (*sukuk*) among themselves before they took delivery of the goods. Zayd Thabit and one of the Companions of the Messenger of Allah, may Allah (subhanahu wa ta’ala) bless him and grant him peace, went to Marwan ibn al-Hakam and said, “Marwan! Do you make usury halal?” He said, “I seek refuge with Allah! What is that?” He said, “These receipts (*sukuk*) which people buy and sell before they take delivery of the goods.” Marwan therefore sent a guard to follow them and to take them from people’s hands and return them to their owners”.

There are another two primary references related to *sukuk* cited by Adam and Thomas (2004):

“Abu Huraira asked Marwan if he permitted selling sakaak. This *sukuk* were similar to a modern food stamp and were traded without the holders of the sakaak taking possession of the underlying foodstuff”.

And;

“Sulayman bin Yasaar reported that Abu Huraira said to Marwan, “You have permitted the sale by *riba*.” Marwan replied. “what did I do?” “You permitted the sale of sakaak (*sukuk*) and it was forbidden by the Messenger of God to sell food before you possessed it.” Then Marwan sermonized to the people, forbidding this practice”.

Based on the references above, Islam gave many ways for people to buy and sell goods but the transactions must be *Shariah*-compliant. Similar to the transaction of *sukuk*, Islam also permitted the buying and selling asset-based capital but must be based on the *Shariah* principles.

According to Nathif and Thomas (2009), there are four basic features of *sukuk*. Firstly, *sukuk* are certificates that represent undivided shares in ownership of a particular project, issued for the purpose of establishing or financing a business. The *sukuk* holder is entitled to all rights conferred by *Shariah* to an owner over property. The second feature is the *sukuk* must not contain any guarantee of *sukuk* capital according to AAOIFI’s recommendations. The third feature is the *sukuk* must not contain any guarantee of a fixed profit or profit based on a percentage of the capital. *Murabaha Sukuk* and *Ijarah Sukuk* have been excluded from this ruling as it is permissible to have a contracted yield based on the agreed profit from the *murabah* sale or the agreed rental from the leased asset. The last feature is that the *sukuk* must not contain any statement of obligation from the issuer’s side that it will buy back *sukuk* for a nominal price. However the *sukuk* may include a promise to buy back the *sukuk* at a market price, or a mutually agreed price at maturity.

Sukuk Structure

The specific contract of exchange of *Shariah*-compliant asset will determine the *sukuk* structure. Such contracts can be made through the sale and purchase of an asset based on deferred payment, leasing of specific assets, participation in joint-venture businesses or agency-based. But *sukuk* has always been characterized as asset-based instruments as to describe that is the specific feature of *sukuk* that is not on mere loans but the use of certain underlying asset to facilitate the transaction (ISRA 2011). There is an

important points about *sukuk* which is the issuance of *sukuk* is not an exchange of paper for money with the imposition of an interest but rather an exchange of *Shariah*-compliant asset for some financial consideration applying various *Shariah* principles. FIGURE 2 illustrate the *sukuk* structure that can be classified into four main clusters: sale-based, lease-based, partnership-based and agency-based *sukuk*.

<INSERT FIGURE 2>

According to ISRA (2011), in the early years of the *sukuk* market, the sale-based *sukuk* dominated the type of issuance. In 2002, when the Malaysian government came to the market with its US\$600 million *Sukuk Ijarah*, the lease-based cluster took the lead. Starting in 2006, the equity-based which is comprises of partnership-based and agency-based *sukuk* took over the baton and peaked in 2007 when it represented 73% of *sukuk* issued. In 2009, sale-based *sukuk* and lease-based shared the podium.

The AAOIFI has defined 14 *sukuk* structures. *Ijarah* and *musharakah* structures are the most popular *sukuk* structure (Nathif & Thomas 2009). The first global deal was the issuance of the Guthrie Global *Sukuk* in 2001. According to Salman Ahmed Shaikh and Shan Saeed (2010), *Ijarah Sukuk* represents ownership of equal shares in a rented property of the usufruct of the property. These *sukuk* give their owners the right to own the property, receive the rent and dispose of their *sukuk* in a manner that does not affect the right of the lessee. The holders of such *sukuk* are owners of the leased property/asset and bear all cost of maintenance and risk of damage to the asset property. Hassan and Lewis (2007) had stated examples of the transaction of *Sukuk Ijarah* which comprises three basic stages. In the first stages, the Project Company agrees, pursuant to the 'Asset Sale Agreement', to sell a pool of asset to the Funding Company for a specified amount. In the second stage, the funding company, as the lessor, and the Project Company, as the lessee, enter into the lease (*Ijarah*) with respect to those assets. In the final stage of transaction, the *sukuk* holder will submit the *sukuk* for redemption (upon maturity) and, depending upon the liquidity features of the transaction, periodically prior to maturity). While in *Musyarakah Sukuk*, the issuer forms a committee from among the holders of the *sukuk* who can be referred to in investment decisions and need not be dormant partners as in the case of *mudarabah*. *Musyarakah Sukuk* are used for mobilizing the funds for establishing a new project requiring heavy investment or developing an existing one or financing a business activity on the basis of partnership contract. The certificate holders become the owners of the project or the assets of the enterprise as per their ownership share. *Mudarabah Sukuk* represented the ownership of units of equal value in the *Mudarabah* equity and is registered in the names of holders on the basis of undivided ownership of shares in the *Mudarabah* equity and returns are based on the ownership share. *Mudarabah Sukuk* used for enhancing public participation in big investment projects. In *Murabahah Sukuk*, the issuer of the certificate is the seller of the *Murabaha* commodity while the *sukuk* holders are the buyers of that commodity. The certificate holders own the *Murabaha* commodity and bear risk of damage to the property until the asset/commodity is sold.

Generally, goods must be deliverable, must exist and must be owned by seller in order for an Islamic contract to be valid. While in *Salam Sukuk*, the issuer of the certificate is a seller of the goods of *Salam*, while the *sukuk* holders are the buyers of the goods. In *Salam* contract, the goods do not exist at the time of sale and hence it is regarded as an exceptional sale. The holders of *Salam* certificates are the owners of the *Salam* goods and are entitled to the sale price of the *Salam* goods sold. It is necessary that the buyer pays in full at spot and that the goods are standardized and remain available in the market from the date of sale to delivery date. In *Istisna Sukuk*, the issuer is the manufacturer while the *sukuk* holders are the buyers of the goods which are required to be manufactured. The certificate holders own the manufactured goods and bear risk of damage to the goods until they are sold to a third party. According to Thomas (2009), *Istisna Sukuk* has been used almost uniquely to finance large scale construction or manufacturing projects. The concept is derived from the rules of *bai' al-salam* in order to create flexibility for the steps required to make something. A financial institution may undertake the construction of a facility for a deferred price, and sub contract the actual construction to a specialized firm. These *sukuk* have no secondary market. In a hybrid *sukuk*, the underlying pool of assets can comprise of *istisna'*, *murabahah* and *ijarah*. Having a portfolio of assets comprising of different classes allows for a greater mobilization of funds and diversification of asset class risk.

The increasing in the number of *sukuk* structures is one of the factors that encouraged the participation of fund raisers to choose the appropriate *sukuk* structure to match their funding requirement. It is a healthy environment for the expansion of *sukuk* market globally.

Sukuk Regulation

The issuance of *sukuk* is regulated by the SC through the framework provided under the Guidelines on the Offering of Islamic Securities (Guidelines). The structure of *sukuk* must be confirmed and approved by a *Shariah* adviser who is appointed by the issuer. A *Shariah* adviser can be an independent *Shariah* adviser approved by the SC or a *Shariah* Committee attached to a financial institution that operates Islamic banking activities approved by BNM. According to Thomas (2009), in November 2007, the AAOIFI *Shariah* Board had recommended the following rules on *sukuk* issuance:

- i. All tradable *sukuk* should represent holdings of the *sukuk* holders, with all their relevant rights and obligations in physical assets that may be legally and lawfully acquired and sold, whether in kind, usufruct, or services. The *sukuk* manager, meanwhile, has to record such ownership transfer in his own registers and should not keep those assets among his own;
- ii. Tradable *sukuk* should not represent either receivables or revenues unless a firm, whether commercial or financial, is selling all its assets or a financially standalone portfolio that it (the firm) holds, and that it happens that such receivables were attached to the sold assets or usufructs and were not meant to be sold per se;
- iii. The *sukuk* manager whether in his capacity as a *mudarib*, *musyarik*, or investment agent, is not allowed to commit to lend to *sukuk* holders in order to cover any deficits that may arise between expected and realized profit. A provision may be formed from prior revenues to make up such deficits as possible, provided that such provision is stipulated in the prospectus. Expected profits may be distributed. *Shariah* compliant financing may be sought, provided that *sukuk* holders' capital is rationalized if the expected profits are not achieved;
- iv. The *mudarib*, *musyarik* or investment agent should not undertake to buy the assets from the *sukuk* holders or their representatives at face value at the time of *sukuk* extinguishing (at maturity date). However, this undertaking may be based on the net asset value, market value, cash equivalent value or any price agreed upon the time of purchase, knowing that the *sukuk* manager guarantees the capital at face value in cases of negligence or violation, whether that manager a *mudarib*, *musyarik*, or investment agent;
On the other hand, if the *musyarakah*, *mudarabah*, or investment agency (*wakalah*) *sukuk* are limited to assets that were leased on the basis of *ijarah muntahiyah bittamlik*, the *sukuk* manager may undertake to buy these assets – at the time of *sukuk* extinguishing – for the remaining rent instalment on all assets, as the value of these instalments constitutes the assets' net value.
- v. A lessee may purchase the leased assets at the time of *sukuk* payback (extinguishing) at face value, provided that such a lessee is not a *musharik*, *mudharib* or investment agent; and
- vi. The *Shariah* Supervisory Board should not just engage itself in issuing fatwa on *sukuk* structuring. It is required, as well, to verify all contracts and relevant documents, monitor their applications, and assure that the process – throughout all its stages – is in compliance with stipulations and requirements as defined by *Shariah* standards. The proceeds of *sukuk* – and all assets acquired by thereby – should be invested in *Shariah* – compliant modes of investment.

Sukuk Benefits

Muhammad Taqi Usmani (2008), mention that among the benefits of *sukuk* are as the followings:-

- i. *Sukuk* are among the best ways of financing large enterprises that are beyond the ability of a single party to finance;
- ii. *Sukuk* provide an ideal means for investors seeking to deploy streams of capital and who require, at the same time, the ability to liquidate their positions with ease whenever the need should arise. This is because it is envisioned that a secondary market for the trading of *sukuk* will develop. Thus, whenever investors require cash from their investments, or from a part of the same, it will be possible for them to sell their *sukuk* holdings, or a part thereof, and receive their value from their original investment plus earnings, if the enterprise is profitable, in cash;
- iii. *Sukuk* represent an excellent way of managing liquidity for banks and Islamic financial institutions. When these are in need of disposing of excess liquidity they may purchase *sukuk*;

and when they are in need of liquidity, they may sell their *sukuk* into the secondary market; and

- iv. *Sukuk* are a means for the equitable distribution of wealth as they allow all investors to benefit from the true profits resulting from the enterprise in equal shares. In this way, wealth may circulate on a broad scale without remaining the exclusive domain of a handful of wealthy persons. This is clearly among the most important of all the higher purposes sought by an Islamic economic system.

Sukuk Potential

Malaysia pioneered the development of the global *sukuk* market with the launch of the first sovereign five-year global *sukuk* worth US\$600 million in 2002. Since then our *sukuk* market has experienced unprecedented growth with Malaysia firmly established as one of the largest issuers of *sukuk* over the years. According to Thomas (2009) the infrastructure will underpin growth in Asia over the next decade and remains one of the fastest growing industries in the region and globally. This stellar growth experienced by the sector over the last few years is attributable to the changing demographics of Asia, rapid population growth, urbanization trends and improvement in living standard. He also highlighted the potential for *sukuk* based on the robust economic landscape in the GCC and Asia, coupled with rising wealth and strengthening demand for *Shariah* compliant investment. The demand for Islamic financial products and services drove the funding desired among firms as an alternative to conventional mode of financing.

The other potential is the increase in number of *sukuk* scheme that is also encouraged the participation of fund raisers to choose the most appropriate scheme among them (Nagano 2010). *Sukuk* product offer vast scope of innovation and a large potential for the growth of Islamic finance. Various structures of *sukuk* based on *ijarah*, *musharakah*, *mudarabah* and many hybrid such as *sukuk* based on the combination of *ijarah* with *istisna* or the combination *ijarah* with *istisna* and *murabaha* etc has evolves. The innovation of *sukuk* is one of the area that attracted and continue attract a lot of interest from the business community worldwide.

According to Abdullah (2011), the corporatization and privatization of major state-owned enterprises, notably public utility companies will be the main catalysts for the growth of the Islamic bond markets in Asia region. The private debt market in Malaysia only picked up momentum in the early 1990s, with the setting up of the national mortgage corporation, Cagamas Berhad (“Cagamas”), by the Bank Negara Malaysia in 1986 (RAM Rating Services Berhad 2008). Cagamas role had been to enhance the liquidity of financial institutions by buying their housing loans (conventional loans and Islamic financings) via funds obtained through securitizing the same housing loans as Cagamas bonds. This had proven a prescient move by the BNM, as it had converted and mobilized long-term illiquid assets (i.e. property loans) into liquid, tradable assets (i.e. Cagamas bonds). Cagamas Berhad introduced a new scheme for the purchase of Islamic higher purchase debts in December 2001. This scheme, and the launch of Islamic mutual funds based on *sukuk* investment by RHB Bank, illustrates how innovative Malaysia is in launching new Islamic financial products (Wilson 2001).

Tax Incentives for Sukuk Issuance

Various tax incentives are available in Malaysia to promote the financial markets especially Islamic financial instruments. There are attractive tax incentives for issuer and for investor. Special purpose vehicles (SPV) are tax exempted on income received by SPV in issuing *sukuk* (excluding asset-backed securities). Companies that established SPV for the purpose of issuing Islamic securities are allowed a tax deduction on the issuing costs incurred by the SPV. The incentive is also extended to SPV established under the Offshore Companies Act 1990 electing to be taxed under the Income Tax Act 1967. For issuers, the deduction on expenses incurred in the issuance of Islamic securities approves by the Securities Commission until year assessment 2015. The incentives are also extended to expenditure incurred on the issuance of Islamic securities approved by Labuan Financial Authority (Labuan FSA).

There is also stamp duty exemptions on instruments used to issue *sukuk* in any currency. While tax exemption and withholding tax exemption on interest or profits received by non-resident investors from investment in Islamic securities issued in any currency, other than convertible loan stock, approved by the SC. Tax exemption also are on profits received by resident and non-resident investors in respect of foreign currency Islamic securities approved by the SC and originating from Malaysia, other than convertible loan stock. There is also a stamp duty exemption on investing and trading of *sukuk*. Malaysian residents (individuals) are also exempted from tax vis-à-vis deposits with

banks in Malaysia, if the investment is held for more than 12 months or if the investment is not more than RM100,000 and is held for less than 12 months.

Tax incentive is one of the determinants to be tested in this empirical analysis. There is no study done directly on factors of tax that influence firms to issue *sukuk* or bonds. Tax incentives for *sukuk* issuers are like sugars that attract firms to issue *sukuk*. Government should review the tax incentives from time to time to make it relevant to the expansion of Malaysia's *sukuk* market.

THEORETICAL FRAMEWORK

To raise funds for operation or to generate new activities, firms either approach bank to obtain loan or tap into the capital market. In a capital market, firms deal directly with investors rather than going indirectly via the banking market. If the firm aware of the concepts of *riba*, *gharar* and *maysir* that exists in the capital market, they may choose the financial instruments that comply with the *Shariah* principles as a source of funds. One of the alternative financial instruments that are acceptable by *Shariah* principles is *sukuk*. *sukuk*, also known as Islamic bond, is the key component of the Islamic financial system. The global *sukuk* market, denominated in international currencies, is seeing an increased number of multilateral agencies; government, multinational and the corporate sector consider the *sukuk* market as an attractive source of financing (RAM Ratings 2008). The question arise regards with what firm perspective towards *sukuk* as a tool of financing and what factors influence a firm decision to issue *sukuk* over conventional bonds.

To understand more about why firm issue *sukuk* over conventional bonds, it is better to understand the way a firms finances its assets through some combination of equity, debt or hybrid securities and how the firms 'structure' its liabilities. Firms can also differentiate between conventional bonds and *sukuk*. According to Miller et al. (2007), *sukuk* are structured to ensure an equivalent return to a conventional bond, with the difference that the return on the *sukuk* is generated from an underlying asset, not from the obligation to pay interest. When the study identified factors influencing firms to issue *sukuk*, it will also relate to the factor attribute to the increasing trend in issuing *sukuk*.

Capital Structure Theory

Over the years numerous studies have been done on capital structure theory. The capital structure theory is concerned with the question of whether the choice of capital structure – that is, proportion of debt to total assets or, alternatively, the proportion of debt to equity – affects firm value or on the cost of capital. If it is determined that the debt ratio has no bearing on firm value or on the cost of capital, then the question of capital structure choice is irrelevant – one capital structure is as good as another. Modigliani and Miller were the first to undertake formal analysis of the capital structure question using a scientific approach in 1958 and posing their 'M&M capital structure irrelevance proposition'. They proved that capital structure has no impact on firm value or on the average cost of capital. In developing their theoretical model, Modigliani and Miller listed several assumptions: no corporate income taxes, business risk is constant, no growth in cash flows, a condition of perfect capital market and no bankruptcy costs. Generally, from the study, we can identify factors influencing firms financing decision which can be classified into static trade off theory, pecking order theory, agency cost and timing model.

In short the company's stability or internal and external threats and opportunities are revealed by 'debt equity ratio', which is capital structure. The highly levered firm is considered at low risk than the company that is in high debt. The total value of the company is that is combination of its debts and equity is not affected by the capital structure as explained by the financial theories. But some time it does affects and is regarded as capital structure irrelevance.

Few decisions related to the capital structure that are considered important are being disregards in this theorem. The theme of this theory is that the value if the firm is not connected to its financing perspective or to the capital structure employed by it. These propositions that are made by Modigliani and Miller pave the path for consideration of the reasons of capital structure relevance information asymmetry, agency costs, bankruptcy costs, and taxes. This analysis can be extended to look at whether there is a fact an optimal capital structure: the one which maximizes the value of the firm.

a) Pecking Order Theory

In the theory of firm's capital structure and financing decisions, the pecking order theory or pecking order model was first suggested by Donaldson in 1961 and it was modified by Myers and Majluf in 1984. It states that companies prioritize their sources of financing which is from internal financing to equity with the principle of least effort, or of least resistance, preferring to raise equity as a financing means of last resort. Firms whose investment opportunities exceed internally generated funds tend to issue more debt securities and hence have higher debt ratio, Moyer et al. (2007). Conversely, highly profitable firms with limited needs for investment funds tend to have lower debt ratios. According to their research, in this situation, the firm builds up financial slack in the form of highly liquid assets (i.e., cash and marketable securities) and unused debt capacity. Pecking order theory starts with asymmetric information as managers know more about their company's prospects, risks and value than outside investors. Asymmetric information affects the choice between internal and external financing and between the issue of debt or equity. There therefore exists a pecking order for the financing of new projects.

Asymmetric information favours the issue of debt over equity as the issue of debt signals the board's confidence that an investment is profitable and that the current stock price is undervalued (were stock price over-valued, the issue of equity would be favoured). The issue of equity would signal a lack of confidence in the board and that they feel the share price is over-valued. An issue of equity would therefore lead to a drop in share price. This does not however apply to high-tech industries where the issue of equity is preferable due to the high cost of debt issue as assets are intangible.

b) Trade-Off Theory

The trade-off theory of capital structure refers to the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. Often agency costs are also included in the balance. This theory is often set up as a competitor theory to the pecking order theory of capital structure.

An important purpose of the theory is to explain the fact that corporations usually are financed partly with debt and partly with equity. It states that there is an advantage to financing with debt, the tax benefits of debt and there is a cost of financing with debt, the costs of financial distress including bankruptcy costs of debt and non-bankruptcy costs (e.g. staff leaving, suppliers demanding disadvantageous payment terms, bondholder/stockholder infighting, etc.). The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing.

c) Agency Costs

Agency cost is a type of internal cost that arises from, or must be paid to, an agent acting on behalf of a principal. Agency costs arise because of core problems such as conflicts of interest between shareholders and management. Shareholders wish for management to run the company in a way that increases shareholder value. But management may wish to grow the company in ways that maximize their personal power and wealth that may not be in the best interests of shareholders.

Agency costs are inevitable within an organization whenever the principals are not completely in charge; the costs can usually be best spent on providing proper material incentives (such as performance bonuses and stock options) and moral incentives for agents to properly execute their duties, thereby aligning the interests of principals (owners) and agents. According to Moyer et al. (2009), managers, in order to protect their jobs, may invest in projects that may reduce bankruptcy risk but are not necessarily wealth-maximizing for shareholders. Alternately, managers in the pursuit of 'empire building' may acquire companies that make the firm larger but do not add value to shareholders. There is one way to solve management shareholder conflicts that is to give managers an ownership stake in the firm. Jensen and Meckling (1976) had point out, unless managers own 100 percent of the shares there will always be potential for management-shareholders conflicts. Jensen and Meckling (1976) had identified two types of conflict; equity holders and managers; and equity holders and debt holders.

Jensen and Meckling (1976) suggest that one way to reduce the managerial-shareholder agency conflict is through the use of debt. The use of financial leverage provides two explanations:

- i. Debt reduces the need for external equity, thereby increasing the concentration of managerial ownership. The greater concentration of managerial stock ownership reduces the agency problem between managers and outside shareholders; and
- ii. The reliance on debt introduces a disciplining mechanism. Because, debt is a contractual obligation, managers will have less cash flow to 'mess' with. Consequently, managers are less

likely to misuse the cash flow: Doing so increases the chance of bankruptcy and potential loss of their jobs.

Does it mean that by the use of debt, firms can reduce their management-shareholder conflicts? If the firm take more debt, it will create agency problem because of the debt. According to Moyer et al. (2009), when debt is used in the capital structure of a firm, common stockholders – or managers acting on behalf of stockholders – have incentives to undertake actions that may be detrimental to the interest of the debt holders. Debt is associated in firm value. The increase in the cost of debt has the effect of reducing the total value of the firm's securities, resulting in an optimal debt structure that is less than 100 percent of total firm value.

d) The Impact of Taxes and Capital Structure

Modigliani and Miller (1963) had published a revision of their original paper with incorporating the effect of corporate income taxes. With corporate income taxes in place, MM find that the value of the levered firm is equal to that of an otherwise equivalent unlevered firm plus the tax shield benefit from debt:

$$V_l = V_u + TB^3$$

Once the corporate income tax is introduced, debt becomes advantages (relative to common equity) because interest expense is tax deductible whereas dividend payments are not. The MM model with corporate tax implies that a firm should increase its level of debt to the point where the capital structure consists almost entirely of debt. In other word, in order to maximize firm value, the capital structure should consist of almost all debt. But in real market, there is rare firm takes 100 percent debt. But we can conclude that in MM Model with incorporated tax actually suggest that firms should attempt to minimize its taxes by employing the maximum amount of debt. MM model include taxes in a later work. They argued that although a firm can save taxes by increasing its debt ratio, individual investors would pay greater taxes on their returns from the firm if these returns were predominantly interest, rather than dividends and capital appreciation on common stock. They conclude that when both personal and corporate income taxes are considered, there is no optimal debt ratio for an individual firm, although there is an optimal amount of total debt in the marketplace, reflecting the difference in corporate and personal tax rates.

The study by Mackie-Mason (1990) applied incremental approach and the profit model to examine the relationship between corporate tax and incentive firm in uses of debt. The findings confirm the hypothesis that formed in the protection of high taxes will increase tax exemption, this has created expectations of lower marginal tax rates and thus firm is less likely to use debt financing.

e) Bankruptcy Costs

MM Model assumes zero bankruptcy costs or financial distress costs. Consequently, lenders in the MM world do not demand higher returns as the firm increases its debt leverage (Moyer et al. 2009). But in reality, lenders demand higher interest rates to compensate for the increased financial risk assumed by the firm in order to offset the costs of bankruptcy.

Islamic Capital Market

According to the definition by International Centre for Education in Islamic Finance –INCEIF (2009), the Islamic Capital Market (ICM) refers to a market where the activities are carried out in ways that do not conflict with the conscience of Muslims and the religion of Islam. In other words, the ICM represents as assertion of religious law within capital market transactions and where the market is free from involvement in activities prohibited by Islam. ICM and interest free financial products are integral parts of the Islamic financial system. They are also important for the growth of other Islamic institutions. ICM plays a vital role in attracting savings and channelling them for productive purposes in compliance with *Shariah* principles. ICM comprises two main components: the debt market and the equity market. According to Asyraf Wajdi (2011), corporations and government agencies use a primary market to raise funds from initial buyers of a security, such as a bond or a stock. A secondary market is a financial market where existing securities are bought and sold.

ICM play important roles in Islamic financial system. The key functions of ICM are as follows:-To transfer fund from surplus to deficit unit. This is to ensure the equitable allocation of

³ Where T is the corporate income tax rate and B is the amount of debt in the firm's capital structure. The second term on the right side of the above the equation (TB) is the present values of the tax shield benefit from debt.

capital to sectors which would yield the best returns, and hence contribute towards the overall growth and expansion of the economy;

- i. The ICM ensure that there exists a means of attracting surplus funds for worthwhile investments in accordance with the owners' preferences in terms of the extent of risks involvement, rates of return as well as the period of investment preferred;
- ii. The ICM provides fund owners with sufficient opportunities to invest for short or medium-term. Most investments, however, have gestation lags and are of long term in character. Emergency needs may arise from time to time which cannot be easily met and the ICM has to fill such gaps; and
- iii. The ICM promotes investment of savings among surplus units, as it is unIslamic to hoard wealth. It is therefore necessary for wealth owners to invest their funds in order not to allow their funds to be unnecessarily eroded by time.

Based on the first key function of ICM, i.e. to transfer fund from surplus to deficit unit, firms can obtain funds in deficit financing sources of the Islamic financial system as being an alternative to the conventional system. The differences exist only in the principle of funding. For example, in the ICM, *mudarabah* and *musyarakah* contracts used in the issuance of stock, preferred stock and warrants, while debt financing through bank loans and bond issuance using the concept of *al bai' bithaman ajil*, *bai' al- murabahah*, *bai' al-inah* and *bai' al-dayn*. The question is how the capital structure being exposed to these principles. Several studies have highlighted by Ebrahim (2000) and Abdul Ghafar and Surtahman (2001) on issues of Islamic debt instruments and hybrid (*mudarabah*). Study considers both the use of equity should be given priority in funding through the concept of Islam and *mudarabah* or *musyarakah*.

<INSERT FIGURE 3>

FIGURE 3 illustrates the Islamic capital structure which consists of debt securities or debt financing, equity and hybrid securities. Equity consists of *mudarabah* and *musyarakah*. According to Aggarwal and Yousef (2000), *mudarabah* financing, where capital is provided by the bank and the firm contributes his effort and exercises complete control over the business venture. In case of loss, the bank earns no return or a negative return on its investment and the firm receives no compensation for his effort. For *musyarakah* financing, the firm and the financier jointly supply the capital and manage the project. Losses are born in proportion to the contribution of capital while profit proportions are negotiated freely. Both of these instruments can be thought of as equity investments, although *mudarabah* financing may be more akin to a limited partnership and *musyarakah* financing is close to a traditional equity stake complete with rights of control.

According to INCEIF (2009) an effective legal, regulatory and supervisory framework provides the essential foundation for the functioning of a modern capital market. For the rapidly growing market like the Islamic capital market, it is important to ensure that an enabling and conducive regulatory environment exists to adequately regulate the Islamic capital market. According to Thomas (2009), the setting up of the *Shariah* Advisory Council (SAC) of the SC in 1996, following the establishment of the SC in 1993, was an important catalyst in the development of Islamic capital market products and services in Malaysia. SAC was involved in the screening of equities for *Shariah*-compliance. SAC also providing consistency and certainty in the interpretation of *Shariah*, the SAC enable the creation of clear benchmark concepts for the issuance of Islamic securities.

There is a wide array of Islamic capital market products and services to meet the needs of those who seek to invest in compliance with *Shariah* principles. INCEIF (2009) has listed *Shariah* compliant stocks, Islamic bonds, Islamic funds and Islamic risk management products.

Distinctions between Sukuk and Conventional Bonds

Bonds are long-term debt obligations that are secured by a specified asset or a promise to pay. In effect, a bond investor has lent money to the bond issuer. In return, the issuer of that bond promises to pay interest and to repay the principal on maturity. It is clear from the definition that in the conventional system of bond issuance and trading the issue of interest is at the centre of any transaction. In contrast, in the Islamic financial system usury and interest are the first elements to be avoided (Al-Amine 2008). These view is synchronize with the opinion of Engku Rabiah Adawiah (2008) that in conventional bonds, the return to the investors is the extra amount charged on the loan amount, i.e. interest charges, regardless of whether the bonds are structures as bonds with coupons or as zero-coupons. Whereas, in

Islamic securities, the return to investors come from the in-built profit elements in the sale, lease or partnership return to investors.

According to Muhammad Taqi Usmani (2008), the most prominent characteristics of conventional bonds are bond do not represent ownership on the part of the bond holders in the commercial or industrial enterprises for which the bonds were issued. Rather, they document the interest-bearing debt owed to the holders of the bonds by the issuer, the owner of the enterprise. Regular interest payments are made to the bond holders. The amount of interest is determined as a percentage of the capital and not as a percentage of actual profits. Sometimes the interest is fixed, while oftentimes in bonds with longer tenors the rate of interest is allowed to float and bonds guarantee the return of principal when redeemed at maturity, regardless of whether the enterprise was profitable or otherwise.

The issuer of such bonds is not required to return more than the principal and the agreed amount of interest. Whatever profits may have been earned by the enterprise accrue entirely and exclusively to the issuer. So the bond holders have no right to seek a share in the profits beyond the interest. According to Adam and Thomas (2004), while conventional bonds are debt investments offering fixed or variable rates of interest, *sukuk* represent legal/beneficial interests in specified tangible assets and/or services and/or projects. However, despite being ownership investment, *sukuk* are not the same as company shares or stock. The AAOIFI *sukuk* standard prefers the use of the terminology 'Investment *Sukuk*' to differentiate them from both bonds and shares.

Cakir and Raei (2007) showed empirical evidence using the delta-normal approach and the Monte Carlo simulation that *sukuk* are different types of instruments than conventional bonds, as evidenced by their different price behaviour. They argue that if an investor is ready to allocate certain amount of funds in the bonds of a certain issuer, diversification by including *sukuk* in the investment portfolio could significantly reduce the portfolio's VaR compared to a strategy (Salman & Shan 2010). Godlewski et. al (2011) view suggesting that *sukuk* are truly different from conventional bonds. The authors examine the risk-reduction advantages of issuing sovereign *sukuk* as alternative financing instruments compared to conventional sovereign bonds.

According to Christopher (2011) for *sukuk* to be *Shariah*-compliant, three criteria must be met: i) the certificates must represent ownership in tangible assets, usufruct or services of revenue-generating firms; ii) payments to investors should come from after-tax profits; and iii) the value repaid at maturity should reflect the current market price of the underlying asset- not the original amount invested.

In conclusion, conventional bonds are loans and their returns are predetermined. Whether the issuers make a profit or lose, the bondholders still get their contractual interest which is also called as fixed yield interest. So, there exist differences between conventional bonds and *sukuk*. First; the interest or *riba*' are prohibited by *Shariah* that makes the transaction *haram* in Islam. Second: There is no guarantee that the issuer aware of the *Shariah* compliant towards the business or activities that they involved in. While the similarity between conventional bonds and *sukuk* is both of it provide funding to the firms that need of funds. The investors and issuers of both financial tools should be knowledgeable in terms of differentiation between conventional bonds and *sukuk* to make sure that their funding decision is comply with the principles of *Shariah*. Differences between *sukuk* and conventional bonds can be referring in Appendix C.

RESEARCH METHOD

Estimation Model

Related studies that describe the determinants of firm in issuing *sukuk*, conventional bonds or debt structure are; Nagano (2011), Morri and Cristanziani (2009), Mazlina et al. (2011), Nayak (2011), Salman and Wang (2011), Mackie-Mason (1990), Myers and Majluf (1984), and Rajan and Zingakes (1995). The research gap founded in those studies is related to the determinants of firms in issuing *sukuk* over conventional bonds. The formation of theoretical model is considering the elements involve in firm's decision to issue *sukuk*. The variables of the study are selected based on the literature. The variables include firm's investment over capital, firm's size, return on asset (ROA), market to book value (MBR), past *sukuk* and bond issuance experience, firm's leverage and tax incentives.

Based on literature review that highlights the determinants of *sukuk* issuance, it is hypothesized as below. These hypotheses will be estimated using empirical analysis:-

- a) Firms investment on capital is positively related to the total *sukuk* issuance
- b) Firm size is positively related to the total *sukuk* issuance
- c) Return on assets is positively related to the total *sukuk* issuance
- d) Market to book ratio is positively related to total *sukuk* issuance
- e) Past *sukuk* issuance experiences is positively related to the total *sukuk*
- f) Past bonds issuance experiences is positively related to the total *sukuk* issuance
- g) Leverage is positively related to the total *sukuk* issuance
- h) Tax incentives for *sukuk* issuance are positively related to the total *sukuk* issuance

This model is adopted from Nagano (2010) and modified with the introduction of new variables which is tax incentives and leverage. The original Model (A) of Nagano which reflects *sukuk* issuance is shown below:

$$SUKUK_{it} = C_{it} + \alpha_1 I/K_{it} + \alpha_2 ROA_{it} + \alpha_3 SIZE_{it} + \alpha_4 MBR_{it} + \alpha_5 BANK_{it} + \alpha_6 Islam_P_{it} + N_BOND_{it} + v_{it} \quad (4.1)$$

where,

<i>SUKUK</i>	= total <i>sukuk</i> issuance
<i>I/K</i>	= firm's investment over capital
<i>ROA</i>	= return on asset
<i>SIZE</i>	= firm's size
<i>MBR</i>	= market to book value
<i>Bank</i>	= bank borrowings
<i>ISLAM_P</i>	= past <i>sukuk</i> experience
<i>N_BOND</i>	= past bond issuance experience

In the basic estimation equation it is assume that internal funding ability influences the issuance of *sukuk*. Firms internal funding ability are based on investment over capital provided (*I/K*), firm size, profitability (*ROA*), firm's growth opportunity and firm's leverage. This model were formalize the issuers preferentiality in choosing Islamic bond issuance prior to bank borrowing and other external financing tools.

The new variables modified with this model are based on study done by Nayak (2011), Mayer and Majluf (1984), Mazlina et al. (2011) and Salman and Wang (2011). The new variables are the firm leverage and tax incentive that influence firm in *sukuk* issuance. Leverage is firm internal funding ability, while taxes are external factors that influence firm decision to issue *sukuk*.

a) Leverage

The broadest definition of stock leverage is the ratio of total liabilities over to total assets. This is measure of what is left for shareholders in case of liquidation (Rajan & Zingales 1994). According to Mazlina et. al (2011) bigger companies would normally have easier access to capital markets and may borrow at favorable interest rates. Harris and Raviv (1991) also discovered that leverages increase with firm size. A recent study on debt determinants of manufacturing industry among Pakistan companies by Ahmad Sheikh and Wang (2011) also find out that company's size is positively linked to debt ratio. Serrasquero and Ragoa (2009) also find a positive and significant relationship between company size and debt structure of Portuguese companies. And this is supported by Cespedes et al. (2010) who find that larger companies are more leveraged.

b) Tax incentives

According to Nagano (2010), factor attribute to the increasing trend in issuing *sukuk* are government promotional policy with provided preferential tax treatments for *sukuk* issues. But Nagano had not included taxes as one a variable to test in his study. The Malaysian government in its Federal Budget 2003, allowed tax deduction on expenses incurred in the process of restructuring, documenting, issuing IPDS against the income for a period of five years. The incentives are given to issuers who adopt the *Shariah* principles of *ijarah*, *mudarah* or *musyarakah* for structuring IPDS. While, in year 2007, the government of Malaysia has extended the tax incentives to issuers and SPV of *istisna' sukuk*.

Modigliani and Miller (1958) claim that market is efficient when there is no tax, thus financing decisions affect neither cost of capital or market value. Later, in their second proposition, they claimed that tax advantage motivates the optimal capital structure, where the companies are said to alter their capital structure to increase the value of their companies (Modigliani and Miller 2004). So, in this study we will analyse whether tax will encourage firms to issue *sukuk*.

The study by Mackie-Mason (1990) applied incremental approach and the profit model to examine the relationship between corporate tax and incentive firm in uses of debt. The findings confirm the hypothesis that formed in the protection of high taxes will increase tax exemption, this has created expectations of lower marginal tax rates and thus firm is less likely to use debt financing. Although those study does not directly relate tax factor in influencing firm to issue bonds or *sukuk*, but there is an element of expectation over tax exemption that influence firms decision in debt financing.

The objective of this study is to identify firm's determinants in issuing *sukuk* over conventional bonds. Based on the determinants of firms in issuing *sukuk* over conventional bonds (Model A), the proposed extended model (Model B) which incorporates leverage and tax incentives variables are as follows:-

$$Sukuk = f \{ I/K, FIRM_SIZE, ROA, ISLAM_P, N_BOND, MBR, LEVERAGE, TAX \} \quad (4.2)$$

$$Sukuk = \beta_0 + \beta_1 I/K_{it} + \beta_2 FIRM_SIZE_{it} + \beta_3 ROA_{it} + \beta_4 ISLAM_P_{it} + \beta_5 N_BOND_{it} + \beta_6 MBR_{it} + \beta_7 LEVERAGE_{it} + \beta_8 TAX_{it} + \mu_{it} \quad (4.3)$$

where,

<i>Sukuk</i>	=	Total <i>sukuk</i> issued divided by book value of total liability
<i>I/K</i>	=	Total net fixed asset divided by firm's previous total capital and reserves
<i>FIRM_SIZE</i>	=	Natural logarithm of total assets
<i>ROA</i>	=	EBITDA divided by book value of total assets
<i>ISLAM_P</i>	=	Accumulated <i>sukuk</i> issued by previous year divided by book value of liability
<i>N_BOND</i>	=	Accumulated bonds issued by previous year divided by book value of liability
<i>MBR</i>	=	Book value of liability plus market value of capital divided by book value of total assets
<i>LEVERAGE</i>	=	Total debts divided by total assets
<i>TAX</i>	=	Tax exemption received by the firm (Dummy variable)

Data and Source of Data

This study used the secondary data that was gathered from Securities Commission (SC) and Rating Agency of Malaysia (RAM) for a period of ten years, from year 2001 until 2010. The size of sample is determined by information availability which is the number of *sukuk* and bonds issuer within the period of study. The sample obtained is 79 listed companies that issued *sukuk* and bonds in Malaysia capital market.

Estimation Method

A pooled combination of cross sectional and time series model that incorporates fixed effect, random effect for both time and specific correlation are deployed. The technique used is two stage least square analyses under the Ordinary Least Square (OLS) and panel data regression technique. Under this technique, the firm's investment on capital (*I/K*) is regressed against the variables for the first stage. For the second stage the total *sukuk* issuance is regressed against the explanatory variables including *I/K*. The purpose of this regression is to identify firms' determinants in issuing *sukuk* over conventional bonds and to look at the coefficients whether it is consistent with the theories and related findings in the previous researches on *sukuk*.

a) Pooled time-series and cross-sectional regression

Panel data have both cross sectional and time series dimensions. Pooling data cross-sectional and intertemporally assumes that the model's parameters are equal across firms and are stable over time. In this study, the OLS with two stage least square will be used to estimate the developed model followed by the regression analysis.

b) The Fixed Effects Model

The Fixed Effects Model (FE) allows the unobserved individual effects to be correlated with the included variables. FE model are designed to study the courses, explore the relationship between predictor and outcome variables within an entity. FE model is easy to estimate and concerned the

individual characteristics of each firms in the sample. FE allows for correlation between the effect and the covariates.

c) **The Random Effects Model**

The Random Effects Model (RE) do not control for endogenous unobservable and require strict erogeneity, and hence orthogonally with the covariates. The rationale in using RE is this study is to see the variation across entities that are assumed to be correlated with the predictor or independent variables included in the model. This allows for time-invariant variables to play a role as explanatory variables. In RE, we need to specify those individual characteristics that may not influence the predictor variables. The problem with RE is that some variables may not be available therefore leading to omitted variable bias in the model. RE allows generalizing the inferences beyond the sample used in the model.

d) **The Hausman Test: Between Fixed and Random Effects**

The parameter estimator of the Generalized Least Square (GLS) with random effects is to be tested with Hausman test to determine its suitability in explaining the variables effects. In the random effect model, individual effects are not correlated with the explanatory variable. The explanatory variable is asymptotically efficient. Hausman (1978) argues that the random effects should move randomly as explained by the characteristic of random variable effects model. However in the fixed model, the random variable is treated as fixed even though the specification for the parameter estimator with fixed effect is consistent and unbiased but not efficient. Green (2003) suggests a much better indicator than the ordinary R^2 as a benchmark to choose between the fixed and the random effects estimation method. The Hausman test is based on the idea that under the hypothesis of no correlation, both OLS in the LSDV model and GLS are consistent, but OLS is inefficient, whereas, under the alternative, OLS is consistent, but GLS is not, and a test can be based on the difference.

RESULTS AND ANALYSIS

Descriptive Statistic Analysis

The descriptive statistics presented below are used to examine the bivariate relationship by comparing average (mean) for each variable. Besides that, other statistical characteristics of the variables that include the standard deviation, skewness, kurtosis (the height) and the Jarque Berra (the variation of the distributions) are being analysed. This finding is summarized in Table 2.

<INSERT TABLE 2>

The result in TABLE 2 show all variables used in the estimation based on common sample for 2003 to 2010. Based on findings in Table 2, the data is not normally distributed. The value of skewness is not equal to zero but it is near to it with 0.18 percent. The value of Jaque-Bera is 3.27 percent which is near to three, but the value of mean and median is not the same for all variables.

Regression Results

TABLE 3 illustrates correlation results and the condition index value of the estimation model. The correlation coefficients among the independent variables are low suggesting the absence of multicollinearity problems. The correlation between Total *Sukuk* and half of the variables (I/K, ROA, N_BOND, MBR and LEVERAGE) are negative. While the correlation between Total *Sukuk* and FIRM SIZE, ISLAM_P and TAX are positive. Both correlation results of FIRM_SIZE and ISLAM_P are also found positively correlated with Total *Sukuk* issuance in Nagano (2010) study.

<INSERT TABLE 3>

The panel regression results are presented in TABLE 3. Based on the estimation results, the variables of FIRM_SIZE, ISLAM_P and TAX are significant for all models. The coefficients of the tested variables are consistent with the expected negative signs for all models, except ROA. We extend the regression result in order to select best model among OLS, fixed and random effects model. Eviews Version 7 provides tool for testing the joint significance of the cross-section fixed effects estimates in least square specification using sum of square (F-statistic) and the likelihood function (Chi-square test).

<INSERT TABLE 4>

The null hypothesis, H_0 : OLS is better than FE while the H_1 : FE is better than OLS. Based on the result, the OLS is better so we fail to reject H_0 . For the statistic values and the associated p -values as shown in TABLE 4 that exhibit the result of redundant fixed effects we reject the null that the effects are redundant.

< INSERT TABLE 5>

The second stage is to test random effects model to find out whether there is significant correlation between the unobserved individual-specific random effects and the regressors. In principle, random effect is more attractive because observed characteristics that remain constant for each individual are retained in the regression model. In fixed effects estimation, they have to be dropped. The OLS is regress on fixed effects and random effects estimation techniques as shown in Table 3 which the Hausman Test was employed. TABLE 5 suggest that the corresponding effects are statistically insignificant; hence fail to reject H_0 so we will accept that random effects model are being chosen. In conclusion, based on two tests which are Likelihood Ratio and Hausman Tests, the OLS is better in the estimation process so the OLS model is more appropriate.

<INSERT TABLE 6>

The objective of this study is to identify determinants of firms in issuing *sukuk* over conventional bonds. By empirically tested on the data that cover samples of 79 firms issued *sukuk* for the periods from 2001 to 2010, the results are convincing. The determinants of firms in issuing *sukuk* over conventional bonds shows the outcomes that match between the regression results and theory as well. This study had extended the research done by Nagano (2010) by included relevant determinants that are leverage and taxes. The estimation results yield the following conclusions.

First, firm size is a determinant of firms in issuing *sukuk* over conventional bonds. Large firms are more diversified, thus have lower possibility of experiencing financial failure and can access capital market more easily. Second, firms with *sukuk* issuance experience are one of the determinants in issuing *sukuk*. The success story of firm in issued *sukuk* encouraged them repeat deals which is healthy for the *sukuk* market. Besides that, the *sukuk* default in a global *sukuk* market is just only 1%. Third, tax incentives are also the determinants of firms in issuing *sukuk* over conventional bonds. Governments from time to time reviewed the tax incentives for *sukuk* issuers and had increased the incentives from time to time. Government also always announced tax incentives to be given to the *sukuk* issuer, SPV etc. in a national budget speeches, meetings and conferences. These incentives had attracted firms to issue *sukuk*.

Finally, based on the estimation and regression results, three determinants of firms in issuing *sukuk* over conventional bonds that are firm size, firms with *sukuk* issuance experience and tax incentives can be taken into consideration in increasing the participation of business corporations in *sukuk* market as their fund raising sources and investment activities.

CONCLUSION

In the area of Islamic capital market, Malaysia is dominating the global *sukuk* market. Malaysia has shifted from concentrated on public or government debt securities to the more varieties of private debt securities. Apart from funding government fiscal deficit, bonds and *sukuk* is actually playing an important role in fulfilling firms funding requirement. The participants in *sukuk* market are from different sector i.e. infrastructure, property, real-estate, telecommunication, power plant and even jewellers. However, there are still have some constrained in *sukuk* markets regarding facilitative infrastructure and regulatory framework which may affected the interest of corporate business to enter into *sukuk* market. For instance, although Malaysia's *sukuk* market has existed as early as the 1980s, but there is still low level of corporate business participation. The awareness of the beneficial of *sukuk* have to be shown as compared to conventional bonds i.e. the lower cost of funding, the flexible tenor and reducing lead times of transaction.

The suggestion towards certain incentives given to the firms that continuously issue *sukuk* would attract other firms to participate in the *sukuk* market. Other than tax incentives, government can

also apply the star rating system to the firms that issue *sukuk*. Firms can be classified as active participant and be given five stars, while in contrast passive firms can only be given one star. The five star firms can get better treatments from the Bank Negara Malaysia i.e. fast lane product approval, promotional advantage etc.

Further researchers should incline their works on extended determinants of firms in issuing *sukuk* with the following: first, to study the firm's growth as one of the determinants. Second, the success story of other firms in issued *sukuk* influence the firm to issue *sukuk*. Research can also be done on quality infrastructure, customer service, investors' information and knowledge and technology system as a factor that influence firms to issue *sukuk*.

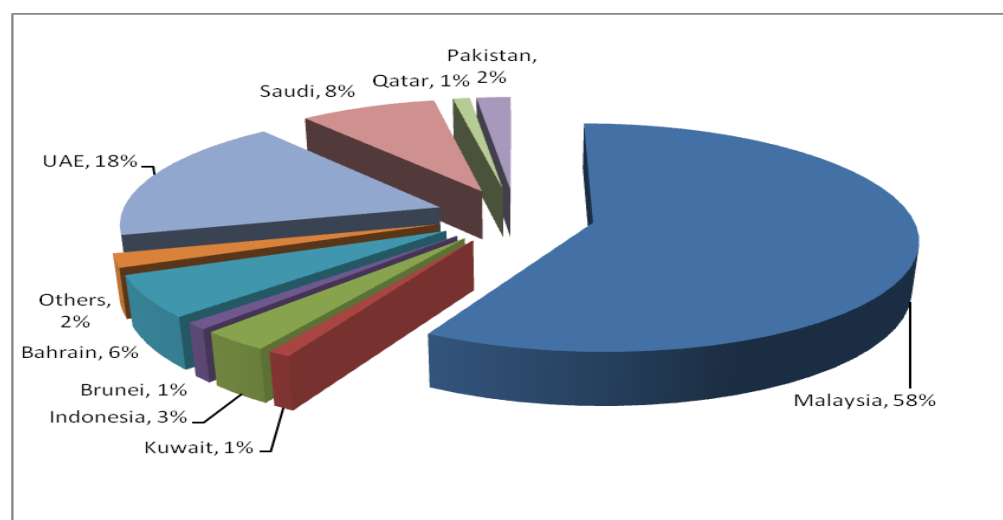
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APPENDIX A

Growth of *Sukuk* Market



Source: ISRA (2011)

APPENDIX B

Landmarks in the Islamic Capital Market of Malaysia

Issuer	Amount	Year	Transaction Highlights
Shell MDS	RM125 million (USD33 million)	1990	World's first ringgit sukuk issuance by foreign-owned, non-Islamic company
Kumpulan Guthrie Bhd	USD150 million	2001	World's first global corporate sukuk
Government of Malaysia	USD600 million	2002	World's first global sovereign sukuk
International Finance Corporation (World Bank)	RM500 million (USD132 million)	2004	First ringgit sukuk issuance by supranational agency
Cagamas MBS Bhd	RM2.05 billion (USD540 million)	2005	World's first Islamic residential mortgage-backed securities
PLUS	RM9.17 billion (USD2.86 billion)	2006	Complex and innovative structure - conversion of existing debts of PLUS into Islamic financing
Khazanah Nasional (Rafflesia Capital Limited)	USD750 million	2006	World's first exchangeable sukuk
AEON Credit Services	RM400 million (USD125 billion)	2007	First Japanese-owned company issuing sukuk
Nucleus Avenue (Malakoff Corporation)	RM8 billion (USD2.5 billion)	2007	First hybrid sukuk in the world
Khazanah Nasional (Cherating Capital)	USD850 million	2007	Largest equity-linked sukuk issuance and record highest over-subscription
Maybank Berhad	USD300 million	2007	World's first international subordinated sukuk
Binariang GSM	RM15.35 billion (USD4.8 billion)	2007	Largest-ever sukuk issue in the world
Islamic Development Bank	RM 1 billion	2008	First RM sukuk
Toyota Capital Services	RM1 billion	2008	First Japanese MNC issuing sukuk
Petronas	USD1.5 billion	2009	First "Emas" sukuk
Government of Malaysia	USD1.25 billion	2010	Second global sovereign Emas sukuk, the largest sovereign sukuk to date
Nomura	USD100 million	2010	First Japanese global Emas sukuk
Khazanah Nasional	SGD1.5 billion (RM3.6 billion)	2010	The largest and longest termed Singapore dollar denominated 'Emas' sukuk
Islamic Development Bank	USD500 million	2010	First Emas sukuk by a multilateral development institution.
Khazanah Nasional	RMB500 million (RM246 million)	2011	World's first China renminbi denominated 'Emas' sukuk , World's First Offshore RMB sukuk
PLUS	RM30.6 billion	2012	World's single largest sukuk issuance
Khazanah Nasional	USD357.8 million	2012	Exchangeable sukuk that first to be priced at negative yield and first Malaysian equity-linked deal since 2010

Source: Malaysia Islamic Finance Centre

APPENDIX C

Differences between *Sukuk* and Conventional Bonds

Characteristic	Sukuk	Bonds
Nature	Not a debt of issuer but undivided ownership share in specific assets/projects/services	Debt of issuer
Asset backed	A minimum of 51 per cent tangible assets (or their contracts are required to back issuance of <i>sukuk al-ijarah</i>)	Generally not required

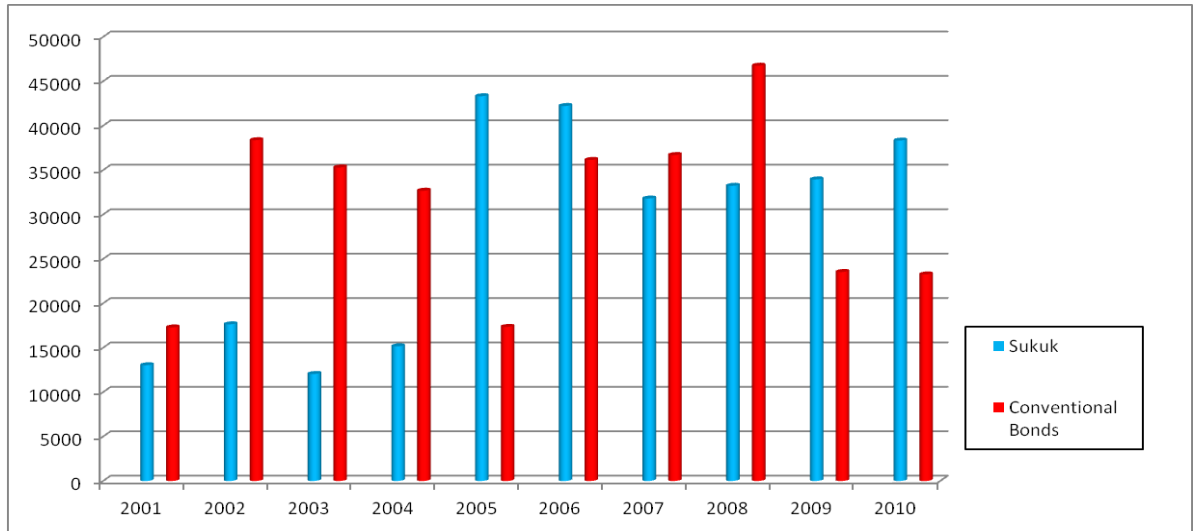
Claims	Ownership claims on the specific underlying assets/projects/services and so on	Creditors claims on the borrowing entity, and in some cases liens on assets
Security	Secured by ownership rights in the underlying assets of projects in addition to any additional collateral enhancements structures	Generally unsecured debentures except in cases such as first mortgage bonds, equipment trust certificates and so on
Principal and return Purpose	Not guaranteed by issuer Must be issued only for Islamically permissible (<i>halal</i>) purposes	Guaranteed by issuer Can be issued for any purpose
Trading of security	Sale of an ownership interest in a specific asset/project/service and so on	Ale of a debt instrument
Responsibility of holders	Responsibility for defined duties relating to the underlying assets/projects/transaction limited to the extent of participation in the issue	Bondholders have no responsibility for the circumstances of the issuer

TABLE 1: Private Debt Securities Issued (2001-2010)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	<i>Value (RM Million)</i>									
<i>Sukuk</i>	13,028.00	17,639.96	12,048.00	15,161.30	43,317.00	42,218.87	31,802.24	33,234.00	33,955.00	38,328.00
Conventional Bonds	17,289.00	38,369.67	35,299.35	32,679.98	17,345.62	36,143.80	36,700.03	46,757.89	23,530.45	23,255.24
Total PDS Raised	30,317.00	56,006.63	47,347.35	47,841.28	60,662.62	79,562.67 <i>(plus combination)</i>	159,802.27	139,991.89 <i>(plus combination)</i>	59,485.45	63,583.24 <i>(plus combination)</i>
<i>Number of Issues</i>										
<i>Sukuk</i>	43	34	31	49	77	71	52	43	11	20
Conventional Bonds	57	137	87	75	49	62	60	52	23	31

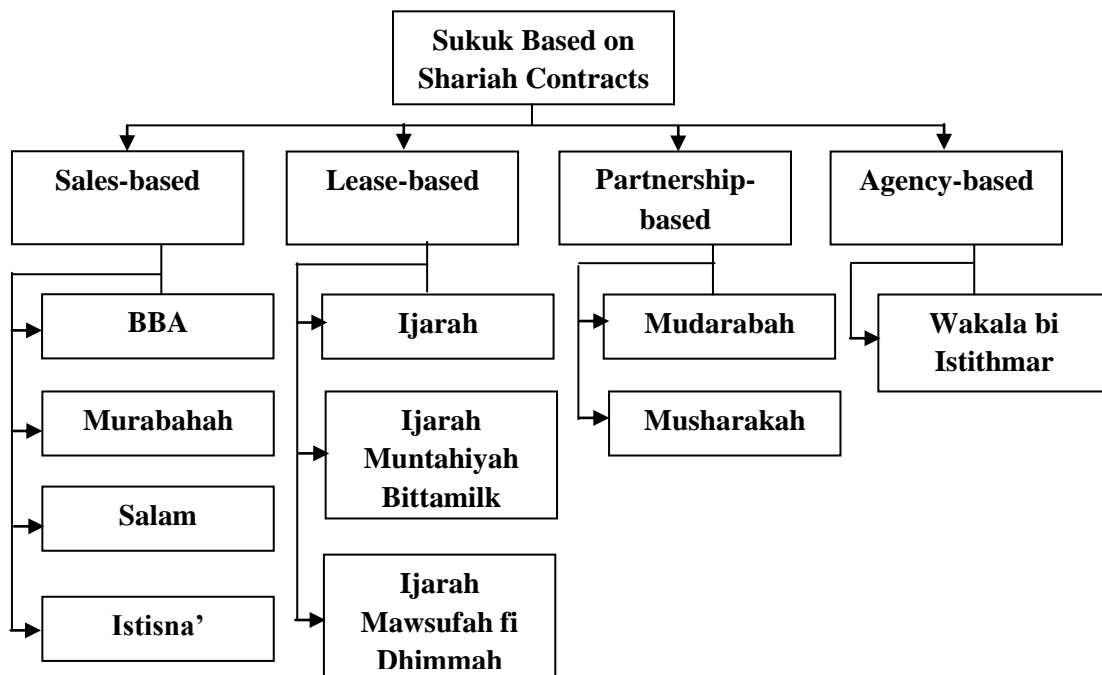
Source: Securities Commission Malaysia (2011)

Value (RM Million)



Source: Securities Commission Malaysia

FIGURE 1: Private Debt Securities Issued (2001-2010)



Source: Securities Commission Malaysia (2009) and ISRA (2011)

FIGURE 2: Classification of *Sukuk* based on *Shariah* Contracts

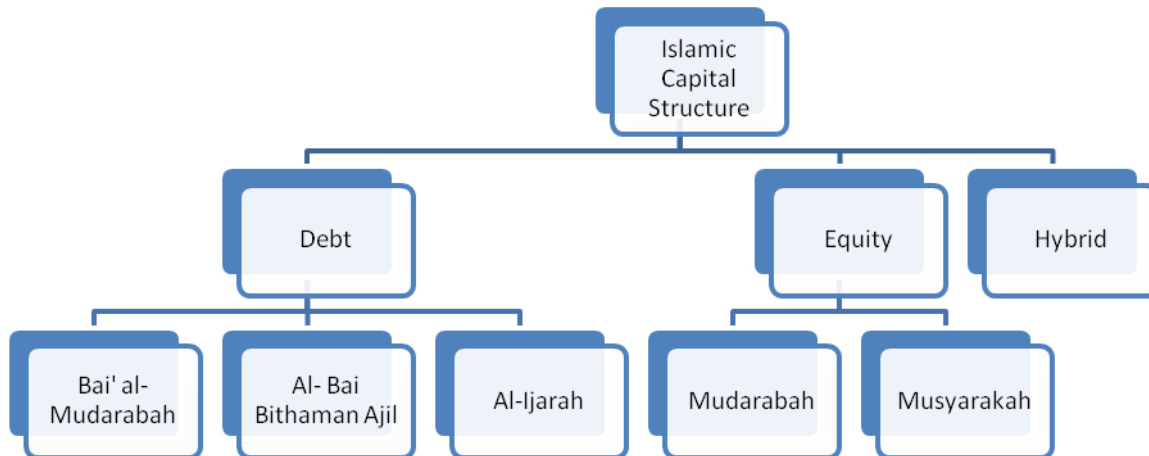


FIGURE 3: Islamic Capital Structure

TABLE 2: Descriptive Statistics

	TOTAL_ I_K SUKUK	I_K	FIRM_SIZ E	ROA	ISLAM_P N_BOND	MBR	LEVERAGE	TAX	
Mean	923.8798	0.928537	12.16194	0.073839	243.7536	13.61397	0.823175	0.268813	0.021519
Median	0.000000	0.757354	13.27310	0.079670	0.000000	0.000000	0.916282	0.275986	0.000000
Maximum	265306.1	25.01633	19.63004	0.361787	38705.05	2866.828	1.930105	1.472809	1.000000
Minimum	0.000000	-7.246954	0.000000	-1.281554	0.000000	0.000000	0.000000	0.000000	0.000000
Std. Dev.	13244.52	1.428017	4.816273	0.093784	1838.373	162.9803	0.384016	0.185887	0.145199
Skewness	17.71649	7.475106	-1.789669	-5.586850	15.63485	14.84712	-0.987615	0.525824	6.594890
Kurtosis	326.6461	113.8753	5.208604	72.47493	291.0348	238.4819	3.328274	4.609949	44.49258
Jarque-Bera	3489243.	412012.6	582.2826	162990.7	2763086.	1849615.	131.9728	121.7225	62396.98
Probabilit	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	729865.0	733.5439	9607.933	58.33299	192565.3	10727.81	650.3083	212.3626	17.00000
Sum Sq. Dev.	1.38E+11	1608.955	18302.02	6.939601	2.67E+09	20904754	116.3524	27.26298	16.63418

TABLE 3: Correlations Matrix

	TOTAL_ I_K SUKUK	I_K	FIRM_ SIZE	ROA	ISLAM_P N_BOND	MBR	LEV.	TAX	
TOTAL_SUK1.0000									
UK									
I_K	-0.0253	1.0000							
FIRM_SIZE	0.0345	0.2636	1.0000						
ROA	0.0230	0.0981	0.2566	1.0000					
ISLAM_P	0.2036	0.0122	0.0310	0.0251	1.0000				
N_BOND	-0.0058	0.0376	0.0304	0.0263	-0.0108	1.0000			
MBR	-0.0389	0.2648	0.7189	0.3089	0.1151	0.0565	1.0000		
LEVERAGE	-0.0715	0.2682	0.4929	-0.1338	0.0753	0.0432	0.7170	1.0000	
TAX	0.2388	-0.0042	0.0486	0.0623	0.0794	-0.0124	-0.0069	-0.0327	1.0000

TABLE 4: Panel Regression Result

Dependant Variable: Total sukuk Issuance (TOTAL_SUKUK)

Variables	OLS Model	FE Model	RE Model
C	161.9871 (1238.379)	-608.4596 (1503.506)	147.6944 (1249.631)
I_K	-145.2407 (332.0133)	-170.7998 (394.3111)	-145.0422 (334.1360)
FIRM_SIZE	348.1255 (136.0739)***	546.0551 (258.7203)***	350.0910 (137.9533)***
ROA	-965.1605 (6005.326)	-3199.121 (7412.812)	-988.4414 (6044.937)
ISLAM_P	1.4361 (0.2476)***	1.4039 (0.2599)***	1.43539 (0.2483)***
N_BOND	0.3495 (2.764204)	-0.0109 (2.974962)	0.3428 (2.773473)
MBR	-3252.726 (2427.339)	-3805.033 (4245.405)	-3246.611 (2459.272)
LEVERAGE	-5067.891 (4153.686)	-8823.125 (6516.971)	-5118.880 (4203.471)
TAX	19546.47 (3119.725)***	20916.32 (3268.119)***	19590.18 (3128.410)***
R-squared	0.1051	0.1927	0.1051
Adjusted R-squared	0.0959	0.0937	0.0959
F-statistic	11.4360	1.9462	11.4395
Prob(F-statistic)	0.0000	0.0000	0.0000
Durbin-Watson stat	2.2413	2.4856	2.2492

Note: Values in parenthesis is standard error. ***, **, and * denote significant level at 1 percent, 5 percent 10 percent respectively.

TABLE 5: Redundant Fixed Effects Test - Likelihood Ratio Test

Model/Effects Test	Cross-section Statistic	F Cross-section square Statistic	Chi-Prob.
Model 1	0.9758	81.2225	0.5397

TABLE 6: Correlated Random Effects – Hausman Test

Model/Effects Test	Chi-square Statistic	Chi-square d.f.	Prob.
Model 1	3.3440	8	0.9110