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# Malaysian Capital Market: Sukuk versus Conventional Bond

[1]Noriza Mohd Saad * and [1]NorEdi Azhar Mohamad
[1]Universiti Tenaga Nasional, Kampus Sultan Haji Ahmad Shah,
26700 Bandar Muadzam Shah, Pahang, Malaysia.
*Corresponding e-mail: noriza@uniten.edu.my

***Abstract***

This study investigates and estimates the impact of bond facets to issuer performance using multivariate regression model which is applied into three categories: (i) firm's profitability which is proxies by return on asset (ROA), return on equity (ROE), net profit margin (NPM) and operating profit margin (OPM); (ii) firm's efficiency is proxy by asset turnover (AT) and (iii) firm's capital structure is proxy by debt to equity in Malaysia. On the other hand, we applied ANOVA approach to compare between sukuk or Islamic bonds and conventional bonds. Secondary data was used for issuance (N= 563) cover the 2005-2009 periods which are gathered from Bank Negara Info Bond Hub website and Rating Agency Malaysia (RAM) for such a bond facets. However, data on issuer performance has been obtained from Bloomberg software and Thompson Data Stream. The results revealed that there is a statistically significant relationship among variables and most of the public listed issuer was issued sukuk as compared to conventional bonds. Based on the regression result it was recommended that bond issuer should deeply considered bond rating in their future issuances to tap the bond market at competitive rate since it was statistically significant to all regressions model.

***Keywords****: Bond facets, Sukuk, Conventional bonds, Performance*

## 1. INTRODUCTION

Capital market can be defined as a market in which money is provided for periods longer than a year. It was classified as the market for securities where conglomerate as well as governments can raise long-term funds. The diverse capital markets products ranging from unit trusts, equities, structured products, derivatives, exchange-traded funds (ETFs), fund management and stockbroking services provide attractive investment environment for investors towards the capital market industry. As from the Malaysian facade, the capital market been growing at a very fast pace providing a significant change and development to shore up various complex needs of the country. As stated by Chairman of the Securities Commission Malaysia (SC), Tan Sri Zarinah Anwar, the Malaysian capital market had reached RM2 trillion as at the end of 2010. Further she indicate that the capital market had achieved an annual compounded growth of 11% from RM717 billion in 2000 supported by rapid industry expansion and strong regulatory supervision that underpinned investor confidence in the Malaysian capital market [SC,2010].

Amongst the integral parts of the Malaysian capital market is bond market that has expanded rapidly by becoming as one of the largest markets in Asia. As at the end of 2010, the outstanding amount of bond was RM758.7 billion rose by 16.2% from RM653.2 billion in 2009. In 2010, the SC approved 52 private bond for issuance with a value of RM63.6 billion as compared with 34 approved issues with a value of RM57.5 billion in 2009[SC,2010]

In view of the fact that bond market is functioning based on interest, it is therefore not surprising that the operation does not conform to the Shari'ah principles (Islamic law as revealed in the Quran and Sunnah). The increasing demand for alternative route of bond vehicles, which do not conflict with the principles of Muslims and the religion of Islam has led to the raised of Shari'ah compliant bond (Sukuk). In Malaysia, Sukuk, was introduced in the

1990s and regulated under the powers of the Securities Commission (SC) with increasing popularity from year to year. The main issuers of public debt are the Government of Malaysia, the central bank (Bank Negara Malaysia), and quasi government institutions (Khazanah, Danamodal and Danaharta). Private bond and asset-backed securities are issued by the National Mortgage Corporation (Cagamas Berhad), financial institutions and non-financial corporations. The Malaysian bond market has displayed exemplary growth with the onset of Islamic debt. As according to Alshowaikh (2008) in MIF monthly bulletin, Sukuk made up only 7% of the corporate bonds issued in 1999 but increased to 58% by 2006. Further, in the first half of 2007, 19 Sukuk with an issuance amount of RM9.99 billion were approved by the Securities Commission (SC), representing almost 42% of the total bond issuance in Malaysia.

In Malaysia, sukuk are similar to conventional bond with the similar facets of time to maturity, a coupon rate, and trades on the normal yield price relationship. The difference lies only in the way the issuer structure the bond. Sukuk is structured in a ways that the issuance is not an exchange of paper for money consideration with the obligation of an interest as per conventional. It is based on an exchange of approved asset for some financial considerations that grant investors a share of the asset including the cash flow and risks that commensurate from such ownership. Approval of the assets and the contract of exchange would be based on Shari'ah (Islamic law) principles, which is necessary to meet the Islamic requirement. On the other hand, conventional bond are standard bond bearing a coupon, paying interest twice a year and have a maturity date at which they will redeem their bond at face value or par value. The price of conventional bond will change primarily with the change in interest rate, which could include trading activities that are deemed prohibited and are not regarded as suitable for Muslim investors. Based on this strategic difference, the purpose of this paper is to provide an understanding on the performances of these two natures of bond in the Malaysian capital market. So far, there is no published evidence on the comparison of performance between Islamic and conventional bond. This study intends to fill the gap in the literature by providing further empirical evidence on the Malaysian bond market. Consider to these issues, the study was highlighted twofold objective; (i) to investigate an association between bond facets with firms' profitability, efficiency and capital structure; and (ii) to compare the performance of Islamic and conventional bonds in Malaysia.

The remainder of the paper is structured as follows. In section 2.0, the study discusses the development of hypotheses through reviewing very limited articles besides provide a brief review of related research and report. In section 3.0, it was introduce the operational definition used, present the proposed methodology and describe the data for the study. The methodology is applied in section 4.0 where the statistic is derived in this section to test the model goodness of fit. Further, the result was discussed to show how the model can be put to use by individual investors. Finally, section 5.0 concludes the paper.

## 2. OVERVIEW OF MALAYSIA ISLAMIC BOND (SUKUK)

The history and development of sukuk market start with the Malaysian government as the first issuer of Islamic bonds with the issuance of the Government Investment Issue or GII (formerly known as the Government Investment Certificate or GIC) in 1983 to facilitate the management of assets in the Islamic banking system. Followed by the Malaysia's first Islamic private bond issue by Shell MDS Sdn Bhd's RM125.0 million of *al-Bai' Bithaman Ajil* facilities in 1990[ Jalil, 2005]. A significant milestone for the development of sukuk in Malaysia taken it place with the issuance of global *sukuk Ijarah* by Kumpulan Guthrie Berhad amounting to US$150 million in January 2002. In June 2002, Malaysia successfully launched the world's first sovereign *Sukuk* (Malaysian Government Sukuk – lease-participation trust certificate) wholly owned by the government issued the USD600 million 5-years Islamic bonds (*Sukuk*) based on the *Ijarah* concept. It's Shari'ah-compliant in all major Muslim

countries and received Shari'ah endorsement by the international Shari'ah supervisory committees such as from HSBC and the International Islamic Financial Market (IIFM).[SC,2002]

The fast-growing of the country's sukuk market, the Islamic version of debt securitization have transformed Malaysia into one of the most dynamic and progressive capital market hub recognized throughout the world as well as the leader in the Sukuk market. According from the media release by bursa Malaysia,the total global issuance in 2010 has reaching USD30billion representing an increase of approximately 20% from the previous year and a two-fold increase from the lows of USD15billion in 2008. Of that amount, some USD8.6billion sukuk programme was listed on Bursa Malaysia, accounting for almost one-third of total global issue. Amongst the major listings include Sime Darby Berhad's RM4.5billion Musyarakah sukuk, the Government of Malaysia's USD1.25billion Global Sukuk Al-Ijarah and the first benchmark foreign currency sukuk by a foreign issuer -Islamic Development Bank's USD3.5billion sukuk. The total value of sukuk programme listed on Bursa Malaysia as at 31 December 2010 stands at approximately USD27.7billion, thus retaining the exchange's position as the leading sukuk listing destination. [BM Media Release,2011]

## 3. REVIEW OF LITERATURE

It should be highlighted here, there are very limited study done on comparative study between Islamic bond and conventional bond either in Malaysia or in the world. However, many articles were released by Malaysian regulatory bodies like Bank Negara Malaysia, Securities Commission and Rating Agency Malaysia. Based on this limited literature, the hypothesis is developed to test the relationship between variables. Shahrim, (2006) and Amine (2001) focused on leverage and risk when issuing bonds. They mentioned that bonds issued by high leverage companies are considered risky for Muslims, as they might contain elements of gharar and may lead to maysir. In conventional bonds there is exploitation of interest rate movement, and the bond risk is assessed not by the bondholder, but by a third party rating agency. Therefore, it can be said that the bondholder's only concern is the return, without any consideration of the use of the proceeds.

Besides the return, size of sukuk issuance need to be considered when making a decision in creating structure of capital by firms. Usually, the money raised from the sukuk issuance is used to invest in the underlying asset [Clifford, 2008; Manaf, 2007; Shahrim, 2006]. In addition, the issuance of Sukuk has undergone rapid increase; for example, London based financial institutions had arranged more than a dozen Sukuk issuances on behalf of Middle Eastern clients in 2006, while in 2008 Indonesia will increase the sale of both conventional and Islamic bonds in order to generate a domestic source of finance to solve its financial deficit [Emergingmarketsmonitors.com ,2007; Alvi ,2006, 2007].

Based on the Rating Agency Malaysia Berhad (RAM) report in 2004, the Malaysian corporate sukuk market continued to expand and mature in 2004, affirming the role that Islamic finance plays in mobilizing the capital needed by corporate. The entry of 51 corporates sukuk issues, with an aggregate value of RM15.03 billion. These represented 55% of total ringgit denominated corporate bonds issued which grossed RM27.37 billion. To the credit of the industry, these well-received sukuk issuances underscore the growing appetite for Shari'ah-compliant instruments and strong investor confidence in the prospects of such instrument. Meaning that, from this report the size of sukuk issuance was tremendously increasing among public and private sector in generating profit. Furthermore, Aziz (2007) a governor of Bank Negara Malaysia said that the growing role of Islamic finance in mobilising and channeling funds to productive investment activities across borders contributes to more efficient allocation of funds across borders and facilitates international trade and investment. The more recent developments in Islamic finance are the rowing

significance of the sukuk market to become an increasingly important component of the development of the global sukuk market. There has been growing interest in the issuance of sukuk by corporations, sovereigns and multinational corporations; the demand for sukuk significantly exceeds the supply. Today, the global sukuk market, denominated in international currencies, is estimated to exceed USD50 billion. Although the size of the market is modest by global standards, the sukuk market is experiencing remarkable growth, increasing at an average rate of growth of forty per cent per annum. In her other articles, She also focus on the vast potential of the Islamic bond market in the economic development process, in its role in ensuring financial stability and its role in promoting greater financial integration in the global financial system. Similar with the Thomas (2007) also stress on the important of the sukuk market. He argue that the application of the forward lease is an innovation developed elsewhere, but made possible in the sukuk space thanks to Malaysia's progressive steps to define the broad sukuk space, and grow it with new concepts. Alshowaikh (2008) also mentioned that Malaysia has been developing a more extensive capital market after the Asian financial crisis to ensure a more resilient financial system. He also said that Malaysia is a matured market as indicated not only by the market share but also by the number of issuances. Here with, this study was developing the first and second hypotheses to outfit for the pooling regression model as below:

*H1: There is a significance relationship between sizes of issuances with the firm's performance.*

*H2: There is a significance relationship between coupon rates with the firm's performance.*

Tariq (2004) mentioned in his study the success and popularity of the Sukuk framework as an alternative asset management platform will invariably require inbuilt mechanisms which can be instrumental in mitigating risks that exist in the structures due to the benchmarking of Sukuk with market references such as London Inter-bank Offer Rate (LIBOR). Rodney (2008) provides an analysis of different sukuk structures from a financial perspective. This examination includes murabahah and ijara-based sukuk, the former offering a fixed return, and the latter, the most popular form of sukuk, a variable return. The potential for other more novel sukuk structures based on musharakah partnership contracts is also examined, and sukuk pricing issues are explored using alternative benchmarks to LIBOR. The paper finds that special purpose vehicles are a prerequisite for the successful issuance and management of sukuk. Rosly &. Sanusi, (2008) argue that financial contracts involving use of bay' al-inah and bay' al-dayn have been extensively used in design of Malaysian Islamic bonds. This paper argues that both these mechanisms have been found unacceptable by the majority of Islamic scholars and proposes the use of financing based on Muqarada and Musharakah principles as genuine alternatives to Interest-bearing financial instruments. Based on this four articles review, this study was comes out with third hypothesis as below:

*H3: There is a significance relationship between types of instruments with the firm's performance.*

From view of conventional bonds, Modigliani and Miller (1958) argue that the presence of perfect capital markets, all financial decisions including debt maturity do not matter. Stiglitz (1974) has formalized and extended Modigliani and Miller's propositions to demonstrate that the debt maturity structure is irrelevant for firm value under perfect market assumptions. However, market imperfections, which are later introduced primarily based on the role of agency cost, signaling and asymmetric information, liquidation risk or taxes, have led to theories supporting the choice of debt maturity mix either short or long term debt. Enclosed, the study was concluding the fourth hypotheses as below:

*H4: There is a significance relationship between maturity of bond or tenure with the firm's performance.*

In addition, the Malaysian ringgit remains the most common currency for sukuk issuance, followed by the dollar. Jobst, (2008) said that the recent years have witnessed a surge in

the issuance of Islamic capital market securities *(sukuk)* by corporates and public sector entities amid growing demand for alternative investments. As the *sukuk* market continues to develop, new challenges and opportunities for sovereign debt managers and capital market development arise. Ismail (2002) said that the growth of Islamic Private Bond("IPDS") in Malaysia has been very encouraging since the first issue in 1990. In 2001, the issuance of IPDS constituted 43% of total PDS issued compared to 34% in 2000. With its continued strong presence, we can expect IPDS to take up a larger share than conventional PDS in 2002. The Islamic bonds issued in 2001 were mainly to finance large privatized projects such as water and power projects which require higher capital outlays. The Al-Bai Bithaman Ajil ("ABBA") structure has been the preferred choice to finance such projects with long gestation periods. Besides ABBA, another popular IPDS tool is the Murabahah concept which caters for short- to medium-term requirements. With that, the last hypothesis was set up as below:

*H5: The Islamic bonds have a higher means than conventional bonds among public listed issuer in Malaysia.*

## 4. DATA AND VARIABLES

### *4.1 Operational definition of sukuk versus conventional bonds and its facets.*

A Malaysian capital market was developed based on two types of famous market that are stock markets and bond markets. Nowadays, Malaysia becomes to be premier country by issuing Islamic securities either Shari'ah compliant securities for listed firms in main market or Islamic bonds or Sukuk. Sukuk that have become global accepted Islamic alternative to conventional bonds and thus are major focus here. Sukuk or Sikak come from Arabic word means Islamic bond or Islamic Investment Notes. Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) released an exposure draft of its Shari'ah standards concerning Sukuk in November 2002. The exposure draft of AAOIFI Shari'ah Standard No. 18, p.4 stated that *"Investment Sukuk are certificates of equal value representing, after closing subscription, receipt of the value of the 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."* Further, article by Rodney, W. (undated) through QFinance in Islamic Capital Markets: The role of Sukuk at page 2 out of 4 was defined characteristic of Sukuk as asset backed, which implies that when they are traded the investors are buying and selling the rights to an underlying real asset, usually a piece of real estate or a moveable asset such as equipment or vehicles. It is this that makes the transaction legitimate as under surah 2.275 in Quran, it states that *"God hath permitted trade but forbidden riba".*

According to Manaf (2007), Islamic bond, or sukuk, is an investment certificate which allows investors to claim ownership of underlying assets. Many types of sukuk issues in Malaysia capital market i.e. sukuk Murabahah and sukuk Bai Bithamin Al-Ajil (BBA) which rated the most popular Islamic private bondissued (Saad, 2009) and these are also proved by Rating Agency Malaysia (RAM), besides sukuk Musyarakah, sukuk Ijarah, sukuk Istisna and etceteras. Again, according to Manaf (2007), there are seven types of Islamic bond based on model of financing and trades which structure the bond. These are mudaraba/ muqarabah sukuk, musharaka sukuk, Ijarah sukuk, Murabaha sukuk, Salam sukuk, Istisna sukuk and Hybrid sukuk. Also, many types of conventional bond issues by Malaysian issuer for instance commercial papers, medium term notes, guaranteed notes, fixed rate bonds, subordinated bonds and many more as revealed by Bank Negara bond info hub website. Regard as the Sukuk definition by Abadi (2007) in his Al Muhit qamus, p.960 as "to strike or to hit, the connotation is allied to strike one's seal on a document. Besides, Sukuk also refers to Islamic securities that comply with Shari'ah principles and rules which prohibit the issues of gambling and riba (excessive interest rate charging). As compared to conventional bond focus on corporate bond in this study defined as a debt security issued by a corporation and

sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations (Investopedia website). In Malaysian capital market, word Sukuk has been used interchangeably with the Shari'ah securities as poles apart from the conventional bonds. There are several bond facets was studied either Islamic or conventional issuance such as coupon rate, rating, size of issuance and tenure of maturity.

In this study, the types of bond instrument were indicated 1 for the Islamic bonds and 2 for the conventional bonds. Data on coupon rate was collected based on the ranking; 1 if the bond issuance is zero coupon bond or 0 percent interest which is normally issued by government like Malaysian Government Bond, T-bonds, subordinated bonds, commercial paper, medium terms notes and many more, 2 for less than 3 percent, 3 for 3 to 5 percent, 4 for more than 5 percent and 5 for floating rate of interest. Noted here, lower coupon rate issue is better (rank number 1) to firm because indicate low risk bearing and verse versa. Similar ranking was developed to represent data on bond rating where 1 for AAA to A (high class bond); 2 for AA1 to A1; 3 for BBB to B; 4 for BBB1 to B1 and 5 for others (C and below which is classify as a speculative bond or junk bond).

### *4.2 Sampling and data collection*

The sample of mixed 563 issuance Islamic and conventional bond had been randomly selected from the BNM bond info's website in Malaysia for five conservative year's period from 2005 to 2009. For the purpose of collecting information on the bond facets, this study obtained data from the RAM where there are sufficient for gathering such data considering Islamic and conventional perspectives. Thompson's DataStream and Bloomberg were used to employ the data on firm's profitability; i.e. Return on assets (ROA), return on equity (ROE), operating profit margin (OPM) and net profit margin (NPM); firm's efficiency by asset turnover (AT) and firm's capital structure by debt to equity (DTE). The determination of the dependent variables mostly depends on these recent surges of studies done by Cantor and Packer (1995) on rated or non-rated securities affect default risk; Kaminsky and Schmukler (2002) on types of rating affect other asset and Gande and Parsley (2003) also on rating or bond grade effects yield or returns; Karmilla . (2009) on various types of returns links to sukuk pricing and in details was mentioned sukuk issuer may devise sukuk pricing in setting returns to the holders in many ways. For example, sukuk issuer may introduce a variable returns to the holders of the certificates. A contrast to return factor which is focus on risk done by Khan and Ahmad (2001) identify various unique credit risks that are particular to Islamic finance. Sukuk issuances maneuver for the large fraction in emerging bond markets where posses less sophisticated risk management mechanisms counterparty. The rescheduling and rearrangement of bond issuances at higher markup rate is not permissible due to the prohibition of excessive interest rate charging or riba. Thus, counterparties would be more inclined to default on their commitments to other parties. In fact, agency costs are higher with regard to equity arrangements.

## 5. RESEARCH METHODOLOGY

The relationship between the bond facets and firms' performance will be used the following multiple regression equations:

$$ROA_i = \alpha + \beta_1(R_1) + \beta_2(LnS_2) + \beta_4(M_4) + \beta_5(CR_5) + \varepsilon_i \quad \text{(Model 1)} \quad (1)$$

$$ROE_i = \alpha + \beta_1(R_1) + \beta_2(LnS_2) + \beta_4(M_4) + \beta_5(CR_5) + \varepsilon_i \quad \text{(Model 2)} \quad (2)$$

$$OPM_i = \alpha + \beta_1(R_1) + \beta_2(LnS_2) + \beta_4(M_4) + \beta_5(CR_5) + \varepsilon_i \quad \text{(Model 3)} \quad (3)$$

$$AT_i = \alpha + \beta_1(R_1) + \beta_2(LnS_2) + \beta_4(M_4) + \beta_5(CR_5) + \varepsilon_i \quad \text{(Model 4)} \quad (4)$$

$$DTE_i = \alpha + \beta_1(R_1) + \beta_2(LnS_2) + \beta_4(M_4) + \beta_5(CR_5) + \varepsilon_i \quad \text{(Model 5)} \quad (5)$$

Where

$\alpha$ = the constant term
$\beta$ = the slope or coefficient estimates of the explanatory variables
$R_i$ = the bond rating by the ith issuance
$LnS_i$ = the log size of issuance of the ith bond
$M_i$ = the time to maturity period of the ith issuance
$CR_i$ = the coupon rate of the ith bond
$\varepsilon_i$ = the standard error of the ith bond

## 6. RESULT ANALYSIS

Table 1 revealed result of descriptive statistics for minimum, maximum, mean and standard deviation of bond facets and firm's performance indicators. Amidst the period of studied (2005-2009), the minimum value of firm's performance is shown bad sign representing statistically negative value to all variables for instance ROA (-13.49), ROE (-34.84), OPM (-62.17), NPM (-33.99) and DTE (-0.80). Otherwise, the maximum value indicates positive value to all. Nonetheless, the means value didn't show encouraging figure since ROE indicate negative and other ratios indicate low. Most of the bond issuance is Sukuk and represent high grade bond with the mean 2.73 means the bond rating is in between AA1 to B. The size of issuance value bond have been log due to thousand million figure issues by certain companies for examples Projek Lebuhraya Utara-Selatan Berhad (PLUS Bhd) on 27-Dec-2007 for RM3,550 million and Public Bank Berhad on 5-Jun-2009 for RM5,000 million. Statistics shown the maturity period of the bond or tenure indicate 100 years is the longest and less than a year for the short term bond with the mean of 7.04 years maturity period. Bond coupon shows that majority of the issuance is zero coupon rate. It should be noted that government is a major player in Malaysian capital market which offered low rate to zero resulted (mean = 1.55) to low standard deviation meaning bearing a low risk at mean of 1.26.

Table 1: Descriptive statistics

| Var | Min | Max | Mean | Std. Dev |
|---|---|---|---|---|
| ROA | -13.49 | 26.13 | 4.99 | 4.64 |
| ROE | -35.84 | 89.60 | 13.60 | 13.88 |
| OPM | -62.17 | 79.51 | 35.02 | 28.88 |
| Asset T/over | .00 | 2.13 | .38 | .38 |
| NPM | -33.99 | 59.69 | 20.00 | 14.22 |
| Rating | 1.00 | 5.00 | 2.73 | 1.14 |
| Instrument | 1.00 | 2.00 | 1.33 | .47 |
| Maturity | .00 | 100 | 7.04 | 6.92 |
| Coupon | .00 | 6.00 | 1.55 | 1.26 |
| LnSize | 3.60 | 9.89 | 7.01 | 1.24 |
| DTE | -.80 | 2.52 | 1.78 | .40 |

The Pearson correlations results in Table 2 reported all p-value of correlation are relatively low justifiable that no multicollinearity problems exist as mentioned by Gujarati (1995), where when the correlations value exceeded 0.80 mean there have a multicollinearity problems among variables. The correlation results of firm's profitability are in consistent to all proxies where ROA, ROE, NPM and OPM have negatively significant correlated at 1 percent (only OPM and rating significant at 10 percent) with bond rating and bond instrument. Other bond

facets also shown a significant correlation to this firm's profitability but the result is mixed, for instance log size of issuance is negatively significant correlated to ROA (-0.089) at 5 percent but not to other proxies. Similar result to coupon bond, shown a negatively significant correlated to OPM (-0.338) and NPM (-0.235) at 1 percent but not to other proxies. Regards to firm's efficiency, all bond facet plus instrument reveal a significant correlation with positively correlated to rating (0.122), coupon (0.110) and instrument (0.309) but negative correlated to bond maturity (-0.247) and log size of issuance (-0.138) at 1 percent to all. Next, gaze at firm's capital structure whereby positive correlated at 5 percent with bond rating (0.098) and log size of issuance (0.099) but to be negative with bond coupon (-0.228). Unfortunately insignificant correlated to bond maturity.

Table 2: Results of Pearson correlation

| Var | ROA | ROE | OPM | AT | NPM | Rating | Inst | Maturity | Coupon | LnSize | DTE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROE | .836*** | 1 | | | | | | | | | |
| OPM | .210*** | .118** | 1 | | | | | | | | |
| AT | .311*** | .156*** | -.471*** | 1 | | | | | | | |
| NPM | .437*** | .420*** | .872*** | -.480*** | 1 | | | | | | |
| Rating | -.295*** | -.291*** | -.076 | .122*** | -.224*** | 1 | | | | | |
| Inst | -.186*** | -.118*** | -.512*** | .309*** | -.515*** | .198*** | 1 | | | | |
| Maturity | .013 | .076 | .246*** | -.247*** | .288*** | -.106** | -.091* | 1 | | | |
| Coupon | -.024 | .104** | -.338** | .110*** | -.235*** | -.097* | .144*** | .204*** | 1 | | |
| LnSize | -.089* | -.008 | -.027 | -.138*** | .010 | -.154*** | .526*** | .201*** | -.271*** | 1 | |
| DTE | -.134*** | -.059 | .407*** | -.199*** | .184*** | .098* | -.072 | .043 | -.228*** | .099** | 1 |

In investigation the findings in Table 3 and 4, a thorough multiple regressions analysis of the bond facets data reveals that in most proxies had shown a significant value to all regressions model. NPM and OPM had shown similar results where it was significant with all 4 bond facets at 1 percent level. In these regressions, rating, coupon and log size of issuance has a negative influence on NPM with p-value of -6.797, -9.967, -5.345 and OPM with p-value of -3.355, -12.775, -6.597 and maturity period of bond is positively related with p-value of 9.918 and 10.152 respectively. Implying that, low ranking of bond rating (rank number 1= AAA, AA, A or 2= AAA1, AA1, A1) will generate a higher profit either net profit or operating profit and return on asset or equity to the issuer. It should be preferred high rating such as AAA to A1 as compared to low rating or classified as junk bond such CCC to C or below. Alike to coupon rate, low ranking will give opportunities to issuer to generate more in profit. Rank 1 represent the zero coupon bond and rank 2 represent the rate is 3 percent and below which indicate low risk and compensated to the high return or profit. If the issuer was issues the highest ranking, that is rank 5 for floating rate and more than 7 percent coupon means they bear a high risk which will be associated with low return or profit. Size of issuances has been log due to thousand million figure and results indicate that larger amount issues will be reduce profit level of issuer. Meaning that, much size of issuance issues, more debt or gearing bear by issuer. Maturity period has inversely relation with other bond facet. Evidently, statistical reports lead to longer period associate to higher profit and verse versa. However, bond maturity only significant to NPM and OPM not to ROA and ROE.

In these regressions, rating shows a positive significant relationship with firm's efficiency which is proxy by asset turnover at 10 percent and is once again positively correlated but insignificant to capital structure proxy by debt to equity at 1 percent. Since, maturity indicate negative to both issuer performance denote that if the issuer prefer longer period than this company will be illiquidity and not efficient enough in running business or in their working capital management. On the other hand, log size of issuance show inverse result where it was significant positive relationship at 1 percent with debt to equity and not to asset turnover. It can be translated that more issuance will give more capital to the firms and the pie of companies' capital structure become larger. However, other bond facet such maturity and coupon rate shows insignificant result to this model.

R-squared and adjusted R-squared for all firm's performance proxies indicate results between 0.093 to 0.281 and 0.087 to 0.276 respectively and therefore explaining a somewhat not strong relationship because only 8.7 to 28.1 percent of the variation in firm's performance proxies is explained by the variation in the bond facets. F-statistics had shown significant value for all variables at 1 percent confident level meaning that the relationship was exists for each model equation. In summary, it can be said that 100 percent (all facets was significant) of bond facets influenced firm's profitability, 75 percent (3 out of 4 facets was significant) influenced firms' efficiency and 50 percent influenced firm's capital structure.

Table 3: Multivariate regression results

| Variables | ROA<br>*Model 1* | ROE<br>*Model 2* | NPM<br>*Model 3* | OPM<br>*Model 4* | AT<br>*Model 5* | DTE<br>*Model 6* |
|---|---|---|---|---|---|---|
| Constant | 9.944 | 6.037 | 12.153 | 11.892 | 3.120 | -2.257 |
| Rating | -8.071*** | -6.989*** | -6.797*** | -3.355*** | 2.580* | 3.628*** |
| Maturity | .844 | 1.006 | 9.918*** | 10.152*** | -6.232*** | -.821 |
| Coupon | -2.557* | 1.257 | -9.967*** | -12.775*** | 3.845*** | -.722 |
| LnSize | -4.053*** | -1.049 | -5.345*** | -6.597*** | -0.519 | 7.021*** |
| R Square | 0.116 | 0.093 | 0.258 | 0.281 | 0.100 | 0.108 |
| Adj. R | 0.109 | 0.087 | 0.253 | 0.276 | 0.094 | 0.102 |
| F-value | 18.266*** | 14.370*** | 48.561*** | 54.511*** | 15.552*** | 16.913*** |

Notes: In cell table, t-value appears in the row and p-value (sig.) is denotes by symbol (*) where * indicates significance at the 10 percent level while ** indicates significance at the 5 percent level and *** indicates significance at the 1 percent level.

Table 4: An association of bond facets to firm's profitability, efficiency and capital structure

| Variables | Firm's Profitability | Firm's Efficiency | Firm's Capital Structure |
|---|---|---|---|
| Rating | ✓ | ✓ | ✓ |
| Maturity | ✓ | ✓ | x |
| Coupon | ✓ | ✓ | x |
| LnSize | ✓ | x | ✓ |
| Total % of Sig. Level | 4/4 = 100% | ¾ = 75% | 2/5 = 50% |

The ANOVA results in the Table 5 analyzed the mean and standard deviation of Islamic bonds (sukuk) as compared to corporate bonds (conventional). Out of a total 563 issuance, 375 of issuance are sukuk and 188 of issuance are conventional represent data on firm's performance and bond facets. However, a total data on debt to equity is 548, where 373 of issuance are sukuk and remaining balance of 175 is conventional bonds. Observed on firm's profitability, mean for each proxy shows that sukuk issuances are much higher compared to conventional. Details reported such ROA, ROE, OPM and NPM for sukuk is 5.598, 14.757, 45.473 and 25.178 compared to conventional of 3.773, 11.296, 14.171 and 9.666 respectively. Meaning that, acceptance to the Islamic bond for Malaysian bond market is encouraging and on demanding. Most of issuer may be realized that through issuing sukuk they can get higher profit instead of conventional bonds. Furthermore, the associations to the risk also proven by the value of standard deviation where sukuk can mitigate risk or reduce risk by showing low value as compared to conventional bonds except for OPM. Succinctly, performance indicators such ROA, ROE, NPM, assets turnover and debt to equity and bond facets such rating, maturity, coupon and size of issuance favor to sukuk issuer as compared to conventional bond issuer.

Table 5: ANOVA analysis and group statistics

| Variables | Instrument | N | Mean | S.D. | F | Sig. |
|---|---|---|---|---|---|---|
| ROA | Sukuk | 375 | 5.598 | 3.197 | 20.034 | .000 |
| | Conventional | 188 | 3.773 | 6.482 | | |
| ROE | Sukuk | 375 | 14.757 | 11.386 | 7.883 | .005 |
| | Conventional | 188 | 11.296 | 17.648 | | |
| OPM | Sukuk | 375 | 45.473 | 26.538 | 198.842 | .000 |
| | Conventional | 188 | 14.171 | 21.038 | | |
| NPM | Sukuk | 375 | .296 | .244 | 202.287 | .000 |
| | Conventional | 188 | .545 | .523 | | |
| AT | Sukuk | 375 | 25.178 | 11.507 | 59.219 | .000 |
| | Conventional | 188 | 9.666 | 13.492 | | |
| DTE | Sukuk | 375 | 5.598 | 3.197 | 22.295 | .000 |
| | Conventional | 188 | 3.773 | 6.482 | | |
| RATING | Sukuk | 375 | 7.491 | 3.656 | 23.003 | .000 |
| | Conventional | 188 | 6.154 | 10.765 | | |
| TENOR | Sukuk | 375 | 1.419 | 1.151 | 4.704 | .031 |
| | Conventional | 188 | 1.803 | 1.421 | | |
| COUPON | Sukuk | 375 | 6.550 | 1.048 | 11.845 | .001 |
| | Conventional | 188 | 7.931 | 1.068 | | |
| LnSize | Sukuk | 373 | 1.795 | .225 | 214.526 | .000 |
| | Conventional | 175 | 1.733 | .633 | | |

## 7. CONCLUSION AND RECOMMENDATIONS

In this study, it can be concluded that majority of the issuances is sukuk or Islamic bonds in 2005 and 2006 but it quite competitive in 2007 until 2009. This finding was proven by Muhammad and Adrian from Bank Negara Malaysia in their paper on corporate bond market in Malaysia (BIS papers No.26) p.126, Islamic capital market products have garnered universal acceptance as viable alternatives to conventional products where 49.4 percent of funds raised in the private bond (PDS) market in 2004 were through Islamic products. It also found evidence indicating that there is a significant relationship between bond facets and firm's performance includes firm's profitability, efficiency and capital structure. Specifically, the regression results was shown that all firms' performance proxies have a significant value with rating implying that issuer should deeply considered bond rating in their future issuances to tap the bond market at competitive rates. Parallel in Malaysia capital market, prior to July 2000 all corporate bond issues were subject to a mandatory minimum rating requirement of BBB or above, however this compliance rule was subsequently lifted. Overall multivariate regression shown that bond facets significantly influenced firm's profitability, efficiency and capital structure at 100 percent, 75 percent and 50 percent respectively. It's also found that there is relationship between the variables despite the fact that the relationship doesn't prove to be the strong relationship because the value of R is below 60% which consistent with suggestion made by Gompers (2003).

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