The Influence of I-Resources on Firm’s Value
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ABSTRACT
This study examines the financial performance of firms subsequent to the introduction of sukuk in their capital mix. A group of sukuk offerings by Malaysian companies was identified primarily from the Securities Commission, while financial information was obtained directly from company financial reports. In addition to the liquidity and leverage ratios, the presence of the new source of funds (i-resources) in the company’s capital structure defined as i-ratio was identified and included in the equation. Further analysis was conducted where i-factor was introduced as a dummy variable to represent the intensity of newly issued sukuk as a percentage of company’s total debt prior to the offerings. Based on the data for the period from January 2001 to December 2006, the results show that firm’s liquidity and leverage position do influence company’s financial performance subsequent to the issuance (2007-2011). In addition, the newly introduced variables, the i-ratio and i-factor also indicate their relationships towards firm’s value. It seems that Malaysian companies are showing continuous support in sukuk as a medium to purify their source of funds. Continuous investigations on this type of instrument will further strengthen the presence of Islamic finance and banking industry in the country while providing valuable information to potential market players.

KEYWORDS: Sukuk, Post-Issuance, Capital Mix, Source of Funds, Firm’s Value.

INTRODUCTION
The world has witnessed the global financial crisis where in 2007-2009, a total of 39 banks and thrifts failed since the beginning of 2008 with a total of $379 billion in assets [3]. This calamity has attracted many scholars to seek an alternative. Beside the conventional financial system, government and investors can opt to Islamic finance. Many governments around the world such as Malaysia, Bahrain, England and Dubai are offering various Islamic financial products through their financial system [9]. On August 2006, the Malaysian government decided to officially introduce the Malaysia International Islamic Finance Centre (MIFC) to act as a global Islamic finance center. MIFC’s core area of focus is the sukuk market, Islamic fund management, banking, insurance and human capital development [12]. The issuance of sukuk as an alternative mode of funding business operations or undertaking new projects have become popular and well accepted by various institutions especially in Malaysia. As reported by the Securities Commission Malaysia, for the year 2011, there were over 314 companies or institutions involved in the issuance of sukuk totalling USD92,284 million of which USD67,384 million were issued in Malaysia.

Over the years, we have witnessed an enormous response from various parties on the great potential of Shariah-compliant financial instruments. While an increased interest and concerns among the Muslims has been the main contributor to the industry to progress further, interestingly the prospect of Islamic finance has also attracted the attention of conventional institutions and the non-Muslims. An increased participation by non-Muslims in the industry could be seen as more and more conventional institutions set up their Islamic entities to show their presence in the system.

Further initiatives to increase public understanding of Islamic financial instruments are essential to enhance the confidence level among the public and participants of the Islamic capital market. In our attempt to support the development and success of the industry, we have conducted a study to examine and analyze one of the leading Islamic capital market instruments known as sukuk and its contribution to the firm’s value.

The work by [5] suggests that as sukuk continue to expand and attract global interest, further investigations on the instruments are necessary to support the industry. Malaysia, being a leader in the market plays an important role to feed the needs of the participants. Continuous studies by researchers in this area are essential in support of the country’s leading position in the global sukuk market. As a part of our knowledge-sharing initiatives, we are taking the challenge to conduct studies on the structure of capital adopted by companies involved in the offerings of sukuk. Considering the implication of such instruments on firms’ value, our investigation focuses on the firms’ specific attributes influencing the issues and contribution towards companies’ performance.
The main objectives of this study are twofold. Firstly, we identify the capital structure of companies prior to the issuance of sukuk. This objective is a straightforward descriptive analysis of certain financial ratios as at financial year end prior to the issuance of sukuk. A profile of sukuk issuers in terms of their capital mix was established based on the selected samples. Secondly, we examine the performance of companies after the issuance of sukuk (post-issuance performance). Since the present study is correlational in nature as it involves several variables with the goal of understanding how the variables are related to one another in terms of the nature and direction of their relationships, the theoretical framework is constructed as shown below.

![Image: Theoretical Framework](image)

**Figure 1: Theoretical framework**

### LITERATURE REVIEW

#### Islamic Banking and Finance Industry

As the journey of Islamic Financial Systems (IFS) has reached a significant distance, particularly in Malaysia. Continuous studies in this field are necessary to support the development and feed the needs of the participants. One of the areas which is gaining speed is the Islamic capital market, where sukuk was introduced and gaining its popularity. As an alternative to the conventional bonds used by companies in their capital raising efforts, sukuk which is also known as Islamic bonds or Islamic investment certificates were introduced to address the concerns of Muslim companies and investors looking for shariah-compliant instruments and investments.

#### Sukuk, Bonds and Shares

Sukuk are more similar to “pass-through certificates”, “equipment trust certificates” or “investment certificates” due to ownership attributes. Each Sakk (singular form of sukuk) represents a proportional or undivided ownership in an asset or pool of assets. The following table highlights the characteristics of sukuk, bonds and shares.

<table>
<thead>
<tr>
<th>Elements</th>
<th>Sukuk</th>
<th>Bonds</th>
<th>Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature</td>
<td>Not a debt but undivided ownership share in specific assets / projects / services</td>
<td>Debt of issuer</td>
<td>Ownership share in a corporation</td>
</tr>
<tr>
<td>Asset backed</td>
<td>A minimum of 51% of tangible asset (or their contract are required to back issuance of sukuk Al-Ijarah)</td>
<td>Generally not required</td>
<td>Not required</td>
</tr>
<tr>
<td>Claims</td>
<td>Ownership claims on the specific underlying assets / projects / services</td>
<td>Creditors’ claims on the borrowing entities</td>
<td>Ownership claims on the company</td>
</tr>
<tr>
<td>Security</td>
<td>Secured by ownership rights on the underlying assets or projects in addition to any additional collateral enhancements structured</td>
<td>Generally unsecured debentures except in cases such as first mortgage bonds and equipment trust certificates</td>
<td>Unsecured</td>
</tr>
<tr>
<td>Principal and return</td>
<td>Not guaranteed by issuer</td>
<td>Guaranteed by issuer</td>
<td>Not guaranteed by company</td>
</tr>
<tr>
<td>Purpose</td>
<td>Must be issued for Islamically permissible purposes</td>
<td>Can be issued for any purpose</td>
<td>Can be offered for any purpose</td>
</tr>
<tr>
<td>Responsibility of holders</td>
<td>Responsibility for defined duties relating to the underlying assets/projects limited to the extent of participation in the issue</td>
<td>Bondholder have no responsibility on the circumstances of the issuer</td>
<td>Responsibility on the affairs of the company limited to the extent of holding in the company</td>
</tr>
</tbody>
</table>

Sukuk structures may be categorized into several classes. As defined by the Accounting and Auditing Organization for Islamic Financial Institution (AAOIFI), the classes of sukuk are briefly described below.

i). **Sukuk Al-Ijarah**-The owner of an existing tangible leased asset may sell such assets through sukuk.
ii). Sukuk Ijarah Mowsufa Bithima-The owner of a tangible asset to be acquired and subject to a lease contract may mobilize the acquisition cost of such an asset through sukuk issues.

iii). Sukuk Manfaa Ijarah-The owner of leasehold rights of existing leased assets may sell the usufruct such assets through sukuk issues.

iv). Sukuk Manfaa Ijarah Mowsufa Bithima-The owner of leasehold rights of an asset to be acquired and subject to a lease contract may sell the usufruct of such an asset through sukuk issues.

v). Sukuk Milkiyat Al-Khadamat-Proprietors wishing to undertake specific services may mobilize the cost of such services by pre-selling the services and their expected benefits through sukuk issues.

vi). Sukuk Al-Salam-Proprietors wishing to produce/provide specific goods/commodities at a future date may pre-sell such future delivery goods/commodities through sukuk issues.

vii). Sukuk Al-Isitisa’a-Constructors, manufacturers, etc. wishing to construct/manufacture and deliver specific assets at a future date may seek the cost of such future delivery assets through sukuk issues.

viii). Sukuk Al-Murabaha-Proprietors wishing to acquire certain goods/commodities to be on-sold under a Murabaha agreement may mobilize the cost of such goods/commodities through sukuk issues. The sukuk holders shall own such goods/commodities and shall be entitled to the sale price of the same.

ix). Sukuk Al-Musharaka-Proprietors of a business partnership may seek capital participations into the partnership through sukuk issues. The sukuk holder share in the risks and rewards of the partnership.

x). Sukuk Al-Mudaraba-An entrepreneur (Mudarib) with a good business idea but without capital or little capital may mobilize sufficient funds for a proposed business/project from capital providers through sukuk issues. The sukuk holders share in the risks and rewards of the Mudarabah.

xi). Sukuk Al-Wakala-Capital may be raised through Sukuk issues to acquire certain assets or goods or services which are then entrusted to an agent (wakil) for the management of the same on behalf of the owners. The sukuk holders take the risk of the underlined assets or goods or services and are entitled to any profits generated from the same.

xii). Sukuk Al-Muzara’a-The principal owners of agricultural land (or the owners of the leasehold rights to such land) may mobilize funds for the cultivation of the land through sukuk issues. The subscribers to such sukuk are entitled to a share of the produce of the land as per original agreements with the owners.

xiii). Sukuk Al-Musaaqa-The owners of mature farm trees (orchards) may mobilize funds for their irrigation, maintenance, etc. through sukuk issues. The subscribers to such sukuk are entitled to a share of the produce of the trees as per original agreements with the owner.

xiv). Sukuk Al-Muqarasa-The owners of a farmland with trees/crops thereon may mobilizes funds to maintain the land as well as the trees/crops through sukuk issues. The subscribers to such sukuk are entitled to a share of the produce of the land and of the trees as per original agreements with the owners.

A study was conducted by [10] on sukuk issuance from 2004 to 2007 and reported, among other things, the development, issues and opportunities on sukuk. The paper also presents a qualitative analysis of economic, regulatory and legal issues that warrant consideration and a structured analysis of sukuk markets aimed at identifying key considerations for debt managers.

In [8] claimed in his study that there has not been any research focusing on the impact of the Islamic religion and culture on capital structure. In order to expand the current body of knowledge, our study will focus on one of the popular shariah-compliant instrument and analyze the influence of sukuk on firm’s capital structure and value.

**Capital Structure, Leverage and Firm’s Value**

Bonds and shares could be clearly categorized as debt or equity instruments. On the other hand, sukuk which come in various structures could fit in both categories. Clear understanding on the features and structures of a particular sukuk issuance is necessary in order to classify the instrument in the proper category. As bonds and shares have been conventionally being the primary components of capital structure, the introduction of sukuk would add further challenge for companies to achieve the optimal capital mix.

Leasing versus ownership was discussed in [2], which is related to our research as sukuk Al-Ijarah is one of the preferred types used by issuers which includes leasing arrangement in the structure. It would be interesting to find out the company’s preference over the sukuk Al-Ijarah and the effect of such move to companies’ capital structure.

A study by [8] on the implications of the Islamic religion on corporate capital structures looked at the relationship between the Islamic religion and the capital structures of firms especially its relation to debt ratio, level of long-term debt and diversification level. While the study examined the qualitative aspect as one of the moderating factors, we look at similar characteristics of companies prior to the issuance of sukuk but focus on the attributes leading to the issuances and firms’ performance.

In [11] conducted a study on the corporate credit lines to investigate the importance of transaction costs in the firm’s leverage rebalancing and cash holding decisions. Particularly, the researcher found that credit lines
play an important role in adjusting firms’ capital structure quickly while managing liquidity. Our study will analyze how sukuk play its role in adjusting firms’ capital structure to maximize firms’ value.

There have been multiple studies that discuss the best optimal structures of a firm. In [14] concern on optimal capital structure and risky assets modeling which employed among other things where numerical techniques compute firms’ optimal capital structure. A study in Saudi Arabia found that equity based financing not only complies with Islamic law, but also the best situation for the corporate capital structure [1]. However, being the best situation does not imply that it is in compliance with Islamic law.

An equity financing based, by and large always helped in securing financial returns in world capital markets. Sukuk being structured in musharakah and mudharabah concepts fit into the scenario and would be expected to have a certain degree of influence on companies’ returns and subsequently impact the choice of firms’ capital mix. A study by [13] which incorporated multiple companies in several Islamic countries, their capital structure choices and how their choices were affected by the taxation rate revealed that the majority of companies showed low leverage ratios even though they are subject to different taxation levels. The findings also support the majority use of equity financing for developing countries.

In [7] performed a study on capital structure decisions among Turkish firms using the time frame 1990 to 1999 to look at factors that affect firms’ capital structure choices compared to those in the developing countries. It found that profitability, size and asset tangibility effects were consistent with developed and other developing countries.

A model based on earnings before interest and taxes (EBIT) known as EBIT-based model of the dynamic capital structure was proposed by [6] to solve for the optimal dynamic capital strategy of a firm. In theory, management can increase or decrease future debt level to achieve the desired capital level. However, the study by [6] only considers the option to increase future debt level. On the other hand, we consider the opposite direction which is the option to decrease future debt level to minimize dependency on the interest-bearing source of capital.

As stated by [4], there has been little empirical work describing the determinants of a firm’s source of capital. Some firms either choose to or are allowed to borrow from the bond market, while others rely exclusively on private lenders such as banks. As the origination of capital influence the capital structure thus affecting firm’s performance, our study looks at the source of capital specifically in the Islamic point of view. We consider the offerings of sukuk as an effort by companies to purify their source of capital and minimize the involvement of riba in their operations.

The correct mix of capitals adopted by companies plays an important role in achieving the desired outcome. As such, how do companies consider sukuk in their capital mix. As sukuk offerings also come in various forms and categories, how does sukuk alter the capital structure of a certain company and influence firm’s value. Our studies on companies’ position prior to the offerings of sukuk will highlight certain attributes leading to the issuances suggesting a profile of the capital structure of sukuk issuers in Malaysia.

**METHODOLOGY**

The sample companies used in this research focus on first time issuers of sukuk. A group of companies was initially identified from the database of the Securities Commission Malaysia. The companies were filtered before the actual sample is selected. Based on the Securities Commission Malaysia’s record, there were more than 300 companies involved in the issuance of sukuk from 2001 to 2011. However, in this study we have only selected certain companies which met the preset criteria.

A study done by [15] suggested that for a study on Islamic financial instruments such as sukuk, one should focus on a specific group instead of taking the whole population of sukuk issuers. It is recommended that researchers focus their samples based on the type of entities of the issuers whether such entities are the governments, private limited companies, public listed companies or financial institutions. The reason being that each type of entities has different objectives for issuing such instruments. By taking the same type of groups, the study allows consistency of comparison and helps to eliminate external issues that might cause skewed findings.

In this study, 48 public listed companies which have issued sukuk for the first time during the year 2001 to 2006. From year 2007 until 2011 is the period of valuating the companies’ financial performance via selected ratio. However, for the purpose of this study, we have only selected 22 companies for analysis excluding financial institutions and companies which recorded losses subsequent to the issuance. The relevant financial details were extracted primarily from the companies’ annual reports obtained through Securities Commission Malaysia and Bank Negara Malaysia. As this study attempted to analyze companies’ performance for 5 years after sukuk issuance, thus the year 2006 was selected as the ending period for companies to be included in this study. The pooled data model specifies in this study is in the following structure:

\[
\text{PBT}_{i,t} = \beta_0 + \beta_1 \text{LIQ}_{i,t} + \beta_2 \text{LEV1}_{i,t} + \beta_3 \text{LEV2}_{i,t} + \beta_4 \text{IRAT}_{i,t} + \text{dummy B4 IFAC}_{i,t} + \varepsilon_{i,t} \quad (1)
\]
where $PBT_{i,t}$ = profit before tax (PBT) for company $i$ at time $t$, $LIQ_{i,t}$ = liquidity ratio for company $i$ at time $t$, $LEV1_{i,t}$ = leverage ratio 1 for company $i$ at time $t$, $LEV2_{i,t}$ = leverage ratio 2 for company $i$ at time $t$, $IRAT_{i,t}$ = the ratio of sukuk for company $i$ at time $t$, $IFAC_{i,t}$ = dummy-the intensity of sukuk for company $i$ at time $t$, and $\varepsilon_{i,t}$ = the error term.

Research hypothesis

$H_{1}$: There is a relationship between Liquidity Position with company’s PBT

$H_{2}$: There is a relationship between Leverage Level 1 with company’s PBT

$H_{3}$: There is a relationship between Leverage Level 2 with company’s PBT

$H_{4}$: There is a relationship between the Ratio of Sukuk with company’s PBT

$H_{5}$: There is a relationship between the Intensity of Sukuk with company’s PBT

Most of the raw data required for this study were extracted from the companies’ annual reports obtained from their websites, while the financial ratios were formulated based on the commonly used formula:

\[
\text{Liquidity / Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (2)
\]

\[
\text{Leverage Ratio 1} = \frac{\text{Total Debt}}{\text{Total Assets}} \quad (3)
\]

\[
\text{Leverage Ratio 2} = \frac{\text{Long-term Debt}}{\text{Equity}} \quad (4)
\]

In addition to the above mentioned ratios, this research also examined the impact of Islamic sources of fund (i-resources) towards company’s capital structure and its influence toward company’s performance. As sukuk is classified as long term in nature and the principal amount was expected to be constant over the period of the study, the researchers have also introduced another variable known as the ‘i-ratio’. The i-ratio represents the Islamic source of funds and defined as the volume of sukuk over the company’s long term debt as at financial year end. For the purpose of establishing a profile on sukuk issuers, we have also introduced a dummy variable known as ‘i-factor’ to represent the intensity of Islamic funds against company’s total borrowings as at the last financial year end prior to the offerings of sukuk.

The variables were extracted from the relevant sources and organized in a manner to suit the requirements of STATA software for analysis. A multiplier test for random effect was performed to determine the appropriate and relevant method for analysis.

$H_{0}$: Choose Pooled Ordinary Least Square

$H_{1}$: Choose Random Effect

Following equation shows Breusch and Pagan Lagrangian multiplier test for random effect.

\[
\ln pbt \ [\text{codes, } t] = x\beta + \mu \ [\text{codes}] + e \ [\text{codes, } t] \quad (5)
\]

<table>
<thead>
<tr>
<th>Var</th>
<th>Sd = Sqrt (Var)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\ln pbt$</td>
<td>2.623489</td>
</tr>
<tr>
<td>$e$</td>
<td>0.2407056</td>
</tr>
<tr>
<td>$\mu$</td>
<td>0.8170286</td>
</tr>
</tbody>
</table>

Test: var ($\mu$) = 0

$\text{Chi}^2 (1) = 151.17$

Prob $> \text{chi}^2 = 0.0000$

Since the p-value is significant, the $H_{0}$ can be rejected. Therefore, the analysis is done using the Random Effect method.

**FINDINGS AND DISCUSSION**

The study examined 5 variables on companies’ financial ratios over a 5 year period. The commonly known ratios namely the liquidity and leverage ratios were examined to determine their relationships towards company’s performance. Another variable was also introduced, which representing the percentage of shariah-complaint funds (sukuk) against company’s total long term debt (i-ratio). In addition, the intensity of sukuk (i-factor) prior to the issuance was also studied to identify its relationships towards the performance of companies subsequent to the issuance.

Twenty two companies were selected from the records of the Securities Commission Malaysia based on preset criteria. Initially, the profiles of companies in terms of their capital structure prior to issuing sukuk were
identified. It was found that the leverage ratios for most of the companies prior to the sukuk issuance were below 50%. It ranges from the minimum of 3.92% to the highest of 50%. Only one of the firms in the group was having a leverage ratio of 78.5% prior to the issuance.

The i_factor was defined to indicate the intensity of sukuk volume employed by the companies. It shows how many times the volume of newly issued sukuk in comparison to the companies’ existing long-term liabilities. The statistics revealed that more than 90% of the companies issued sukuk at the level of less than 10 times of its existing long-term liabilities. Only 2 companies showed that the sukuk volume issued were 11.36x and 15.22x of their existing long-term debt respectively. The following table summarized the detailed findings of the variables.

<table>
<thead>
<tr>
<th>Random-effects GLS regression</th>
<th>Number of obs</th>
<th>132</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group variable: codes</td>
<td>Number of groups</td>
<td>22</td>
</tr>
<tr>
<td>R-sq: within</td>
<td>obs per group:</td>
<td>6</td>
</tr>
<tr>
<td>between</td>
<td>min</td>
<td>6</td>
</tr>
<tr>
<td>overall</td>
<td>avg</td>
<td>6.0</td>
</tr>
<tr>
<td>Random effects u_i ~ Gaussian</td>
<td>max</td>
<td>6</td>
</tr>
<tr>
<td>corr(u_i, X)</td>
<td>= 0 (assumed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wald chi2(5)</td>
<td>90.95</td>
</tr>
<tr>
<td></td>
<td>Prob &gt; chi2</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Looking at p-value of the 5 variables selected in this study, 3 of them namely leverage ratio 2, i_ratio and i_factor indicated significant relationships toward firm’s performance.

Leverage Ratio 2 (Long-Term Debt / Equity)

The result shows a p-value of 0.000 which is significant at the 5% level. T-test result indicated that an increase of 1.0% of leverage ratio 2, the company’s PBT would drop by 6.27% which suggesting a negative relationship between leverage ratio 2 and PBT.

i_Ratio (Sukuk Volume / Long-Term Debt)

In this study, the principal amount of sukuk is assumed to be constant over the duration of study (5 years). The i_ratio was defined as the percentage of shariah-compliant funds (sukuk) against company’s total long-term debt at a certain period. Based on the analysis, the p-value of i-ratio 0.000 indicated its significance relationship with PBT. It suggested a negative relationship that when the i-ratio increase by 1%, PBT would decrease by 8.52%.

i-Factor (Sukuk Volume / Total Liabilities)

A dummy variable known as ‘i-factor’ was also introduced in this study to represent the intensity of Islamic funds employed by companies prior to the offerings of sukuk. The p-value of i_factor of 0.032 indicated a significant relationship of this factor towards PBT. It suggested that there is a significant relationship of companies, which issued sukuk less than 3 times of their existing liabilities compared to those that issued sukuk more than 3 times of their existing liabilities.

Liquidity / Current Ratio and Leverage Ratio 2

The null hypothesis for liquidity and leverage ratio 1 may not be rejected. As such, there is no significant relationship of these factors with PBT.

CONCLUSION AND RECOMMENDATIONS

As at the end of 2011, Malaysia continued to play its leading position in the issuance of sukuk globally. More than 70% of the total sukuk offerings during the year 2011 amounting to USD92.6 billion were issued in Malaysia. In terms of the total sukuk outstanding, about 68% of the total USD201.9 billion as at 2011 were originated in Malaysia. In view of an increased awareness and understanding on Islamic finance followed by
continuous support and preference on sukuk, continuous studies in this area would provide the relevant information and sources of reference for the participants.

The earlier studies on the firm’s capital structure primarily considered the level of debt or equity to be the main components for analysis and investigations. In this study, however, the researchers have attempted to go one step further to study the classification of funds employed. Instead of just examining the debt or equity levels of a certain company, the researchers also take into consideration the status of funds or capital employed. In particular, a specific class of funds known as the shariah-compliant funds (sukuk) was examined to determine its association towards firm’s value.

Initial findings of the study indicated that the level of sukuk introduced to the firm’s capital mix does have a significant relationship towards company’s performance. However, in this study, only 2 classifications of companies were established for analysis. The 2 groups were defined based on the volume of sukuk issued in comparison to companies’ existing long-term liabilities prior to the offerings, which represented by the dummy variable i-factor. Such companies which issue sukuk more than 3 times of their existing liabilities shows significant relationships towards their performance. In other words, there is no significant relationship on firms’ performance if companies issue sukuk more than 3 times of their existing liabilities. For future studies, a selection of companies may be expanded to include more firms for a much longer period of study. In addition, the companies may also be further classified based on the shariah principles used for the issuance.

The existence of Islamic capital market provides alternative avenues for companies to raise funds in accordance with the shariah requirements. The status of funds employed in business operations is believed to have a certain impact on companies’ performance. Not that it has only influenced the value of companies, but also the behavior of the owners or shareholders. In Islamic perspective, financing obtained from ‘non-permissible’ sources will not only affect the status of a company’s share. But more importantly, it influences the profitability and sustainability of a business which subsequently the value of a firm.

REFERENCES