

# In Search of a Theory of Corporate Financing and Islamic Financial Instruments

Nazam Dzolkarnaini<sup>1</sup>  
Marizah Minhat<sup>2</sup>

*We examine the use of Islamic financial instruments in the capital structure of non-financial firms from 16 Islamic countries. Contrary to various bold claims of tremendous growth of Islamic finance over the time, a preliminary analysis reveals relatively low penetration of Islamic financial instruments in the firms' capital structure mix. This poses a concern on the sustainability of Islamic finance growth. We argue that the Islamic financial instruments are less attractive to some corporations and further research will be undertaken to explore some of the plausible reasons.*

**Keywords:** Islamic finance, Capital structure, Islamic financial instruments, Sukuk.

## 1. Introduction

Research in the field of firms' capital structure has flourished since the infamous proposition of capital structure irrelevance by Modigliani and Miller (1958). Significant progress has been made in understanding the determinants of financial instrument choice resulting in voluminous empirical evidence which tested various capital structure theories (e.g., Bradley et al. (1984), Smith and Watts (1992) and Strebulaev (2007) on the trade-off and optimal capital structure theories; Baskin (1989), Opler and Titman (1995) and Shyam-Sunder and Myers (1999) on the pecking order theory; Baker and Wurgler (2002) and Welch (2004) on the market forces; Scholes et al. (1990) and Graham et al. (1998) on the tax advantage; Beattie et al. (2000) and Yan (2006) on the lease-debt substitutability). In essence, these studies examine the firms' decisions in using equity and debt (including leasing) in their capital structure mix. However, our understanding remains incomplete, particularly in respect of Islamic financial instruments (IFIs hereafter).

Examining composition of IFIs in the firms' capital structure is very relevant in assessing the growth and sustainability of the Islamic finance industry. In this paper, we ask to what extent the IFIs is used by corporations as a means of financing. In the pre-global financial crisis era, it has been widely reported that Islamic finance has experienced double digit growth over many years. For example, BBC reported on 9 June 2006 that the value of Islamic banking worldwide is estimated in the range of \$200-\$500 billion and its future growth potential is immense. The overall confidence in its potential growth remains buoyant even during the present economic slowdown state. To illustrate, Financial Times reported very recently that the Sukuk market shows resilience and Sukuk issuance is once again growing.<sup>3</sup> However, anecdotal evidence suggests that such a tremendous growth has been largely propelled by

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<sup>1</sup> Salford Business School, University of Salford, Greater Manchester, UK. E: n.dzolkarnaini@salford.ac.uk; Telephone: + 44 (0) 161 295 2535.

<sup>2</sup> School of Accounting, Financial Services and Law, Edinburgh Napier University, Scotland, UK.

<sup>3</sup> Financial Times (12 May 2011).

various governments' needs of funds to develop the nations.<sup>4</sup> The invention of Islamic bond, or Sukuk, has actually speeding up the growth and the market has been dominated mainly by the sovereign Sukuks ever since.

We document evidence of relatively lower proportion of IFIs in the firms' capital structure mix. We cast some doubt on the sustainability of Islamic finance growth as the IFIs appear less attractive to the corporations. We offer some plausible explanations for such behaviour in this paper as well as critically evaluating the extent to which the usual capital structure theories remain applicable in the Islamic finance setting.

The remainder of this paper is organised as follows. The next section presents the literature review on capital structure decisions. Section 3 explains the sample description followed by Section 4 on preliminary findings. Discussions and further research are presented in Section 5.

## 2. Literature review

### 2.1. Capital structure theory and evidence

Research in corporate financing decision has taken many forms since the beginning of the infamous proposition of capital structure irrelevance by Modigliani and Miller (1958). By relaxing the irrelevance assumption, several theoretical frameworks have been developed to explain the existence of debt in firms' capital structures, namely trade-off theory (e.g., Baxter, 1967; Kraus and Litzenberger, 1973; Stiglitz, 1972; Miller, 1977; Kim, 1978), agency theory (e.g., Jensen and Meckling, 1976; Grossman and Hart, 1982; Jensen, 1986) and pecking order theory (e.g., Myers, 1984; Myers and Majluf, 1984).

Apart from theoretical propositions, research in capital structure also takes in the form of empirical research. The empirical research is deemed as necessary as to test the validity of theoretical predictions, although the findings are rather mixed and inconclusive. An earlier study by Schwartz and Aronson (1967) finds evidence of optimal capital structure, as there is strong industry effect in debt ratios. Later study by Bradley et al. (1984) concludes that their findings 'support the modern balancing [trade-off] theory of capital structure' (p. 877). The pecking order theory has been tested directly by Shyam-Sunder and Myers (1999). They find that the theory has a good explanatory power in predicting capital structure choice of a firm compared to its rival trade-off theory. Other studies have evidences in support of the pecking order theory but are less direct (e.g., Baskin, 1989; MacKie-Mason, 1990b; Korajczyk, Lucas and McDonald, 1991; Chaplinsky and Niehaus, 1993; Choe, Masulis and Nanda, 1993; Opler and Titman, 1995). In contrast, several studies have argued unfavourably against the findings of Shyam-Sunder and Myers (1999). Chirinko and Singha (2000) show that the 'elegantly simple' test in Shyam-Sunder and Myers (1999) generates misleading inferences when evaluating plausible patterns of external financing. They argue that their empirical evidence can evaluate neither the pecking order nor trade-off theories. In support, Frank and Goyal (2003) find contrary evidence to the pecking order theory whereby the net equity issues track the financing deficit more closely than do net debt issues.

Another strand of empirical research takes in the form of examining firm's characteristics that can potentially associated with the firm's capital structure decisions. Among earlier

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<sup>4</sup> It is estimated that the project financing requirement in the GCC countries alone is in the region of US\$ 1 trillion. In some regions like Dubai, most infrastructure development has been directly procured by government and quasi-government agencies (BMB Islamic, 2010).

studies, Marsh (1982) finds that a firm with high level of fixed assets and of large size is highly likely to issue debt, while an increase in bankruptcy probability will reduce the probability to issue debt. Bradley et al. (1984) incorporate other factors in their study and find that leverage is positively correlated with non-debt tax shields and negatively correlated with volatility, and advertising and research and development (R&D) expenditures. For growth opportunities factor, Kester (1986) finds a positive relationship while Kim and Sorensen (1986) find a negative relationship. Studies by Friend and Hasbrouck (1988) and Friend and Lang (1988) find a positive relationship on firm size while others do not (e.g., Kester, 1986; Kim and Sorensen, 1986; Titman and Wessels, 1988; Chaplinsky and Niehaus, 1990). Apart from specific firm characteristics, a firm's leverage ratio is also to be found positively related to the average leverage ratio in its industry. These are documented by Bowen et al. (1982), Castanias (1983), Bradley et al. (1984), Long and Malitz (1985a) and Kester (1986). Interestingly, it can be well observed that the findings are rather mixed and inconclusive (see Harris and Raviv (1991) for a review of capital structure evidence).

## *2.2. Capital structure decision in developing economies*

It must be noted here that the aforementioned studies were undertaken in the developed economies. We could argue that some of the findings may not be generalisable to the emerging and developing economies (in which Islamic finance industry is mainly operating) due to various institutional differences. Examining 727 firms in 10 developing countries over period 1980-1991, Booth et al. (2001) found that the capital structure decisions of these firms are affected by the same variables as in developed countries. However, they further noted that the impact of different institutional features on capital structure choices remains unanswered. For example, they argued that financing in the developing economies are mainly bank-driven, rather than market-based. This is further complicated by extensive government ownership and regulation of the financial system.

In a more recent study, de Jong et al. (2008) examined 12,000 non-financial listed firms from 42 industrialised and emerging countries. While they found that a firm's capital structure is influenced by the usual firm-specific factors, they however argued that the impact of the factors varies across countries. This suggests that the country-specific factors like investor rights protection, market/bank based financial system and stock/bond market development also play an important role in the capital structure decisions.

Within the scope of Islamic finance, Ahmed (2007) demonstrate analytically that capital structure of an Islamic firm is bounded by certain restrictions and will depend on the status of the firm in terms of size, growth potentials, tangible assets, and information content of the firm. For example, the leverage ratio cannot exceed the value of tangible assets suggesting tangibility is a very important determinant here. Consequently, it would be expected that new firms with higher growth opportunities will be less leveraged due to the lack of tangible assets.

## **3. Sample description**

Our sample covers non-financial firms in the following jurisdictions (alphabetically ordered): Bahrain, Bangladesh, Egypt, Indonesia, Iran, Jordan, Kuwait, Lebanon, Malaysia, Mauritania, Pakistan, Qatar, Saudi Arabia, Tunisia, United Arab Emirates and Palestine. Our focus on these countries is due to the non-negligible presence of Islamic banks in their banking systems (Čihák and Hesse, 2010). It is expected that the presence of Islamic banks would influence the financing decisions of non-financial firms in these countries. Therefore,

we can expect the usage of IFIs on the capital structure of non-financial firms in these jurisdictions.<sup>5</sup>

The data collection process begins with gathering the annual reports from the year 2005 to 2009 of the top twenty non-financial firms in each of the selected the countries.<sup>6</sup> The sample excludes financial and Shariah non-compliant companies and the companies are selected from the major stock market indexes of each country. It is expected that the issuance of IFIs is common among large companies. This is the trend that we have observed from Malaysian experience whereby Sukuk was issued by large government linked companies. As reported in Table 1, a total of 129 firms have made their annual reports available online. The availability of annual reports for these firms has enabled us to examine their financing choices.

(Insert Table 1 here)

#### **4. Preliminary findings**

Table 2 presents the penetration rate of IFIs among non-financial firms in each country. It is observed that IFIs have been issued by non-financial firms in only fifty percent (i.e., 8/16) of the sample countries, namely, Saudi Arabia, Malaysia, UAE, Pakistan, Indonesia, Qatar, Kuwait and Egypt. There has been no issuance of IFIs by non-financial firms in the following countries: Bahrain, Bangladesh, Iran, Jordan, Lebanon, Mauritius, Tunisia and Palestine.

(Insert Table 2 here)

The penetration rate of IFIs is the highest in Saudi Arabia whereby sixty seven percent (i.e., 4/6) of the sample firms in that country had issued IFIs. However, this finding must be interpreted with caution due to data non-availability. As reported in Table 1, only 6 of the top 20 firms made their annual reports available online. It is interesting to observe from Table 2 that that sixty five percent (i.e., 13/20) of the Malaysian large firms have used IFIs as part of their financing instruments. This should not be surprising because Malaysia has played a pioneering role in the development of Islamic finance over the years which had begun with the implementation of the Islamic Banking Act 1983. The IFIS' penetration rates in the capital structure of non-financial firms in other countries are 33% in the United Arab Emirates, 29% in Pakistan, 25% in Indonesia and Qatar, 22% in Kuwait and 11% in Egypt. Chart 1 summarises the findings.

(Insert Chart 1 here)

#### **5. Discussions and future research**

Our preliminary findings suggest lower proportion of IFI in the capital structure mix of the top twenty non-financial firms in countries with non-negligible presence of Islamic banks. However, at this stage, only forty-four percent of the initially selected companies have made their annual reports available online hence has enabled us to examine their usage of IFIs. Significant data non-availability is an issue that needs to be addressed in our further research.

Nevertheless, it is interesting to observe that not all top twenty companies in each sample country have considered IFIs to finance their operations. This intriguing aspect of this

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<sup>5</sup> Due to data non-availability, the following countries are excluded from the sample despite the non-negligible presence of Islamic banks in their banking systems: Brunei, Gambia, Sudan, West Bank, Gaza and Yemen.

<sup>6</sup> With the exception of Bahrain and Lebanon with the top ten and top three companies respectively.

research as it relates to the issue of the sustainability of Islamic finance growth. In some countries, government has played a significant role in influencing firms' capital structure decisions. For example, Malaysian government has some influenced in the decisions of large government linked companies such as Petronas and Tenaga Nasional Berhad to issue Sukuk. It is expected that a similar trend would follow in non-Muslim jurisdictions. For example, the Scottish government has a plan to issue Sukuk to finance the Athletes' Village for the 2014 Commonwealth games and to help meet social housing needs (ICAS, 2010).<sup>7</sup>

From both theoretical and practical perspectives, it is still largely unknown why some firms may choose to consider IFIs and why some firms are still fully relying on conventional financing instruments. Our further work will examine the factors that have influenced these firms' capital structure decisions with regard to IFIs.

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<sup>7</sup> CA Magazine, The Institute of Chartered Accountants of Scotland, December 2010.

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**Table 1 Sample and data availability (2005-2009)**

No.	Country	No. of companies	No. of companies with annual reports (2005-2009 ) available	Percentage (%)
1	Bahrain	10	3	30
2	Malaysia	20	20	100
3	Bangladesh	20	9	45
4	Egypt	20	9	45
5	Iran	20	0	0
6	Indonesia	20	16	80
7	Jordan	20	3	15
8	Kuwait	20	9	45
9	Lebanon	3	0	0
10	Mauritius	20	9	45
11	Pakistan	20	14	70
12	Qatar	20	16	80
13	Saudi Arabia	20	6	30
14	Tunisia	20	1	5
15	UAE	20	12	60
16	Palestine	20	2	10
	Total	293	129	44

**Table 2 The penetration rates of Islamic Financial Instruments among non-financial firms in Sixteen Islamic countries (2005-2009)**

No.	Country	No. of companies with annual reports (2005-2009) available	No. of co with IFIs	Percentage (%)
1	Bahrain	3	0	0
2	Malaysia	20	13	65
3	Bangladesh	9	0	0
4	Egypt	9	1	11
5	Iran	0	0	0
6	Indonesia	16	4	25
7	Jordan	3	0	0
8	Kuwait	9	2	22
9	Lebanon	0	0	0
10	Mauritius	9	0	0
11	Pakistan	14	4	29
12	Qatar	16	4	25
13	Saudi Arabia	6	4	67
14	Tunisia	1	0	0
15	UAE	12	4	33
16	Palestine	2	0	0
	Total	129	36	28

**Chart 1 The penetration rates of Islamic Financial Instruments among non-financial firms in Eight Islamic countries (2005-2009)**

