Risk Management in the Takaful Industry: An Empirical Study of the Kuwaiti Market

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ABSTRACT

Takaful insurance companies manage their risks in accordance with Sharia law. This study investigates the essential risks involved in Takaful companies and how Takaful companies manage these risks. After considering, risk management for Takaful companies in general, the paper then focuses on the particular risks faced by Takaful companies in the Kuwaiti market. Six in-depth interviews were conducted with senior managers of Takaful companies in Kuwait. It concluded that, in addition to the risks facing all Takaful companies, certain of these risks magnified in the case of Kuwait Takaful companies due to the current state of development of the Kuwaiti market. The paper concludes with some proposals for the further development of the Takaful industry in Kuwait.

Keywords : *Risk Management; Takaful; Kuwaiti Market; Islamic Insurance, Shariah Law.*

1. INTRODUCTION

The acceptability of Islamic finance has penetrated not only the Middle East and other Asian countries, but also the rest of the world is also gradually amending their financial regulations to accommodate the system (Hassan and Aliyu, 2017). Takaful has seen a substantial growth both in terms of new companies and contribution (premium). And this growth story continues, its size to be worth of US$25.5 billion of premiums by 2020 ("Global Takaful insight,"2014). Over the past ten years, the number of Takaful companies has climbed nearly fourfold, reflecting the global popularity growth of the sector and its increasing importance to the development of Islamic finance. As of 2014, there were 215 Takaful companies and 96 Takaful windows worldwide, and more established since, especially in Africa and Asia. That is a great achievement for Takaful, considering it had to find it place within the larger conventional system, facing tough, practical challenges of competition, pricing and differentiated products and services.

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Takaful has acquired much attention in the last decade in South East Asia and the Middle East Countries. The growth of Islamic insurance in recent times started in Sudan in 1979 and Malaysia in 1984. (Bhatty, 2007) reports that "Takaful insurance is growing rapidly in Islamic countries, Particularly in the Middle East-accounting for about 80 per cent of annual premiums In 2006, and East Asian countries such as Malaysia and Indonesia-contributing about 12 per cent of annual premiums in the same period as the result of 1985."The idea of Takaful insurance based on cooperation between groups of individuals who are in risk of common danger. "Islamic insurance requires each participant to contribute to a fund that is used to support one another with each participant contributing sufficient amounts to cover expected claims" (Cheikh, 2013). However, Takaful insurance exemplifies the idea of joint liability. "A scheme based on brotherhood, solidarity and mutual assistance which provides for mutual financial aid and assistance to the participants in case of need whereby the participants mutually agree to contribute for the purpose" (Malaysian Takaful Act, 1984).

Takaful derived from the Arabic word Kafala, which is a promise to provide aid to the persons in a group in respect of damage or loss sustained by any one of them. Takaful is similar to insurance in some aspects. (Hanif, 2014) Indicated that the conventional insurance policy is a type of contract contains a financial compensation, its main aim to produce a profit. But Takaful is a social function of mutual guarantee and mutual risk sharing, based on the principle of solidarity, and designed to comply with the Islamic Sharia Law. (Mahmood, 1991) pointed out that the conventional insurance comprises three factors that violate Islamic standards, Gharar (uncertainty), Maisir (gambling) and Riba (interest).all the conventional insurance policies comprise Gharar (uncertainty), because the financial compensation will depend on unknown future event which conflicts with the Islamic sharia law (Boulanouar and Alqahtani,2016)

> *"Since conventional insurance is about uncertainty and chance occurrences, in the eyes of Muslims insurance looked like a catalogue of prohibited practices, inequality between premiums paid and benefits collected (or not collected), premiums placed in interest bearing instruments, and late payments of premiums resulting in interest and late fees" (Kettel, 2011).*

Operating under the Sharia principles of cooperation, mutual responsibility, joint indemnification, combined benefit and solidarity, the Takaful system is substantially free from Gharar, Maisir and Riba. Takaful practices in Muslim communities for 1400 years. However, the institutional Takaful industry has developed since only approximately the last 30 years. During this period, the industry has grown at a rate

of around 20% per year."Takaful has been growing tremendously for the last decade. ("The World Takaful Report", 2012) indicates that the Compound Annual Growth Rate (CAGR) of the industry stood at 29% from 2005-2009 contemplating the GCC region as the main driver". (Hidayat, Abdulla, 2015) Despite its successful beginnings, in addition to the risks faced in conventional insurance, Takaful companies are confronted by other risks that are specific to the Takaful sector, particularly in its current, early stage of development. These include the lack of sufficient Sharia compliant investments across the required range of maturities, the lack of liquidity in markets for Islamic financial securities, and the limited size of the Takaful reinsurance market. In addition to these Takaful-specific risks, there are particular risks associated with Takaful in particular countries, for example, in the Kuwaiti market discussed in this paper.

It noted that these Takaful-specific and country-specific risks do not arise from the nature of Islamic finance itself. Indeed, Muslims believe that Islamic financial markets and institutions are, in principle, less risky, more stable, and more effective in promoting both economic growth and social justice than their conventional counterparts. (Hassan et al. , 2013) States that Islamic banking and finance is becoming one of the most significant aspects of the modern global financial system. Why? Because it is a fast-growing industry that has developed rapidly within a few years from a niche industry to a global force to be reckoned with in the international arena. Furthermore, The global volume of Sharia compliant assets has grown at about 16% per annum in post-financial crisis era (2007-08) with a volume of about US$1,984 by (Hassan, 2017) and is estimated to cross USD Five trillion by 2020 (Hanif, 2014). The current difficulties facing the emerging Takaful industry are due to its current state of development. These problems, therefore, can be solved, their solution requiring the contributions of governments, regulators, industry practitioners, academics and scholars.

The paper organised as follows. Section 2 focuses on those risks that are common to both Takaful and conventional insurance companies and discusses risks specific to Takaful insurers. Section 3 discusses the research methodology. Section 4 presents and discuss the results of six in-depth interviews conducted with senior managers of Takaful companies in Kuwait. The paper concludes in Section 5 with recommendations and future directions for research.

The main conclusions are that Takaful insurers face significant risks not shared by conventional insurers, that the risks common to both conventional and Takaful insurers are greater in the case of Takaful companies, and that the greatest risk confronting Takaful insurers is the risk of a deficit in the subscribers' fund (to be explained and

discussed below). Deficit risk has not been much discussed in the academic literature but is of serious concern for practitioners in the Takaful industry.

2. RESEARCH BACKGROUND

2.1 Risk management in conventional and Takaful insurance companies

Managing risk involves identifying and modelling risks, managing the controllable risks, and minimising the impact of uncontrollable risks by risk allocation/apportionment (Liu et al., 2003). Concerning the mathematical and technical aspects of risk, there are no appreciable differences between conventional insurance and Takaful in their business and underwriting operations. Risk management in the Takaful industry, as in conventional insurance, is a process of identifying the potential losses of an operator and selecting the most appropriate techniques for managing such potential losses.

Takaful, as practised for many centuries according to Islamic values, was not profit-oriented, and concentrated on providing the maximum protection and assistance to the unfortunate. In recent decades Takaful companies operate in a competitive market, which involves managing risk exposures, and pricing those risks accepted for underwriting at competitive market rates. Risk management in Takaful companies has many objectives. The major objective is to assure that the Takaful fund can pay the claims and other obligations, to obtain good investment returns, and to secure stability as an ongoing concern.

Three risk classifications apply to both Takaful and conventional insurers:

1- *Financial risks include threats to the firm's solvency, capital adequacy and credit standing, and of outstanding and potential litigation, the volatility of investment values, investment income and premium payments.*

2- *Business risks include risks concerning political stability, currency controls, knowledge of local compliance requirements, data protection, reliability and cost of connectivity, cultural compatibility, time zone and difference in practices and regulations, and contractual risks such as changes of control or ownership, exit terms and who is accountable for what when things go wrong.*

3- *Operational risks concern issues such as the number of adequately qualified people, service delivery and a service culture relevant to business needs, management monitoring and reporting against agreed service levels, quality of leadership and succession planning, IT physical and logical security, ease of IT systems interfaces, IT system reliability, and disaster recovery procedures. The potential damage from operational risks includes costly*

investigations of complaints from errors and omissions in business dealings and increased costs of day-to-day handling due to incompetence or absence of e-trading capability.

2.2 Risks specific to Takaful insurers

In addition to the risks faced by conventional insurers Takaful operators are also exposed to Sharia compliance risks. Sharia compliance is a continuing obligation of Takaful companies, and Takaful operators must ensure its compliance at all times. Sharia compliance is not in itself an onerous obligation. (Hassan et al., 2007) Believes that the Sharia committee board in any Islamic financial institution must approve any new products or contracts. In a mature Takaful industry, operating within a fully developed Sharia compliant political, legal, regulatory, institutional, capital market, professional, and educational environment, Sharia compliance would be a relatively straight forward matter.

While Sharia compliance is a fundamental obligation of Takaful companies, operating within a fully integrated Islamic political, economic and financial system, Sharia compliance would fully integrate into the operations of Takaful companies as a matter of course. In such a system the risk of failure to comply with the Sharia law would be minimised. Furthermore, within such a system, Sharia compliance would be regarded, not so much as a constraint on business, but rather as a blessing, guiding the ethically correct conduct of the insurance industry. However, given the current state of development of the political, legal and economic environment in which Takaful companies operate, the risks arising from the obligation to be Sharia compliant are severe. The requirement for Sharia compliance magnifies the financial, business and operating risks faced by Takaful insurers.

2.2.1 Sharia underwriting constraints:

(Hassan et al. ,2009) States that the Muslims communities enjoy having a diversity of financial services which comply with the Islamic sharia law in Takaful insurance all technical aspects of the conventional underwriting process are applicable. The difference is in the risk acceptance criteria and some of the terms and conditions of insurance policies. However, it is essential for the Islamic financial institutions to ensure that the services and the relationship between the customer and institutions have the highest standard of reliability, credibility and authenticity. The underwriting policy of Islamic insurance companies must conform to the Sharia. (Wahab et al., 2007) Obtains that there are some concerns related to employed business models raised by the Sharia scholars in the Takaful industry. The questions arising are: What are the risks that we can be accepted? What are the risks that cannot be accepted? Under which

circumstances can exceptions be introduced? Answering these questions on the underwriting policy, which may differ from one insurance company to another, depends on business requirements, customers' needs, risk exposure, the conditions of the underwriting cycle (soft or hard market), and legal and ethical considerations. The Takaful insurance company in its underwriting policy focuses on solidarity among the participants as well as shareholders' interests, instead of giving priority to profit maximisation as in conventional insurance.

(Olorogun, 2015),(Coolen, 2013),(Hassan et al., 2011),(Ali, 2017) (Oseni, 2017) and (Saiti et al., 2017) identified the basic principles of Sharia compliance are:

- *Absolute submission to Allah for what is lawful and what is forbidden*
- *Whatever is conducive to unlawful is not permissible. This is to block pretexts to forbidden.*
- *To come to an agreement based on unlawful does not qualify forbidden or remove the unlawfulness of the agreement.*
- *Doubtful things are to be avoided.*
- *Unlawful must be eliminated, but not using another forbidden.*
- *Necessity dictates exceptions, by circumstances. For example, while trade in drugs is prohibited in Islam, Muslims may trade in drugs for necessity (e.g. trading in drugs for medical purposes). In such cases, and subject to approval by the Sharia Supervisory Board (SSB), the Islamic insurance company may accept covering this type of business.*

2.2.2 Sharia investment constraints:

Like any insurance company, the Takaful insurance company has to manage two types of funds, the first for life assurance (family Takaful) and the second for general insurance. All of the principles of conventional portfolio management are applicable, constrained, as always, by the requirement for Sharia compliance. The main Sharia constraints are the prohibition to invest in interest-based securities (Riba), and avoidance of investment in forbidden activities, such as the production of alcoholic beverages, tobacco, gambling services, pork products, prostitution, and other forbidden products and services and doesn't involves any type of activities conflict with the Islamic Sharia law. The main investments of Takaful companies are deposits in Islamic banks, real estate, and direct investment in permissible commercial and industrial activities, Sukuk, and equities.

As with conventional insurance, the aim of managing the investment's portfolio is to obtain a match between income from premiums and investments with payments to policyholders and shareholders. However, given the current state of development of

Islamic finance, the Sharia constraints on investment magnify the investment risks faced by conventional insurers. The main reason for this concerns the current underdevelopment of the Sukuk market.

(Asaria, 2012) Suggests an optimal asset allocation for Takaful companies as follows; Islamic bank deposits 10-15%, Sukuk 60-70%, equities 10-20%, and alternative assets 5-10%. The large weighting for Sukuk is because Sukuk securities provide a stable and reliable income stream matching the maturities of the estimated financial obligations of Takaful insurers. However, the current asset allocations of Takaful companies differ considerably from the ideal weightings. (Tolefat and Asutay, 2013) Estimate the current asset allocation of Takaful companies as; Islamic bank deposits 40-45%, Sukuk 10-15%, equities 25-30%, and alternative assets 10-20%. The asset allocations in Sukuk are from four to seven times lower than desired. These figures show that a major factor limiting the growth of the Takaful market is the currently under-developed state of the Sukuk market. In 2007 Sheikh Taqi Usmani, Chairman of International Shariah Standard Council of the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI) issued a statement estimating that around 85% of issued Sukuk were not Shariah compliant, mainly due to the repurchase agreements contained in the majority of Sukuk with Mudaraba or Musharaka structures.

AAOFI standards are mandatory in some jurisdictions and used as guidelines in others. As it became clear that Sheik Usmani was expressing a personal view, and not the view of AAOFI itself, a potential crisis in the Sukuk market was averted. However, the lack of globally agreed standards means that uncertainty over the Shariah compliance of Sukuk remains an ongoing concern. A second issue concerns maturity matching. Only around 5% of investment grade Sukuk have maturities of 10 years or more. There is currently a lack of sufficient long-dated Sukuk maturities to match the long-term liabilities of Takaful insurers. Thirdly, total Sukuk issuance since 2000, estimated at US$737,142 million by the International Islamic Financial Market is only around 1% of the size of the global bond market ("A comprehensive study of the Global Sukuk Market",2015). Deep, liquid and efficiently priced Sukuk markets are required to promote the growth of the Takaful industry.

2.2.3 Competition risks:

(Maysami and Kwon, 1999) & (Khan, 2005) observe that Takaful insurance companies are in competition with conventional insurance companies, concerning pricing, marketing, operational effectiveness and efficiency, and financial strength. Takaful companies are, in general, far younger and smaller than their conventional counterparts. The current financial strength of conventional insurers is the result of the accumulation of surpluses and investment returns over many years or decades

(Mohamed and Hussain,2017). That is particularly the case for conventional mutual insurers. With no infusion of capital from shareholders, the capital of mutual insurers is the result solely of the accumulation of surpluses and investment returns. In modern highly competitive markets it would be very difficult for a Takaful mutual insurer to replicate the historical development of conventional mutual insurers, which mostly began by servicing the insurance and savings needs of small communities, and were able to grow into large concerns only slowly and over long periods of time in much a less competitive environment. Such a route for Takaful mutual would be possible today only with considerable financial, legal and regulatory support from governments. Thus, nearly all Takaful insurers are limited companies, whose initial capital obtained from the shareholders, and that is required to provide a competitive rate of return to their shareholders, in competition with large and well-established conventional insurers.

2.2.4 The risk of the deficit in the subscribers' fund:

A deficit is a situation where the Takaful fund falls short of meeting liabilities, in technical terms when the loss ratio is more than 100%. Deficits in the subscribers' fund can be caused by poor underwriting and investment management. Further, under the Wakala and mixed Wakala/Mudarabah model followed in Kuwait and the other GCC countries, an agency problem arises, in that there is an incentive to maximise short-term profits by charging excessive Wakala fees. "Wakala model suggests that being a trustee of insurance funds as well as manager of investments, compensation to the insurance company should be given as a fixed predetermined fee for its services" (Hanif, 2014)

The principle of cooperation based on the liability of policyholders for any deficit, regardless of who received and who did not receive any claim payments during the financial year in question (Lewis,2005). There are two different methods to implement this principle in practice, calling for money from the subscribers, and shareholders providing an interest-free loan to the Takaful fund, the loan to be repaid from future surpluses of the subscribers' fund. (Abrahim and Amin, 2011) State that only the first method is available for purely cooperative and mutual funds, where the funds exist only for the benefit of subscribers, to compensate subscriber's claims and to provide a return on savings products. However, for the reasons noted above, Takaful insurers are almost exclusively limited liability companies, and the provision of interest-free loans to cover shortfalls in the subscribers' fund has now become standard in the industry (Wahab et al.,2007).

2.2.5 Retakaful risk:

In a talk to European Reinsurers in 2009 Anila Preston Wickramasinghe, CEO

is sometimes misunderstood is that in Retakaful the reinsurance is paid for the benefit of the subscribers' fund, and not the Takaful company itself. The market for Retakaful is currently very limited. There is only a handful of Retakaful suppliers in the market, and Retakaful capacity is insufficient to meet the Takaful insurers demand. However, the currently narrow and limited market of for Takaful reinsurance means that the market is not sufficiently large and diversified to absorb systemic and contamination risks. Most Takaful insurers currently reinsure with conventional reinsurers, which can be criticised as being not fully compliant with the Islamic Sharia law (Cheikh, 2013).

2.2.6 The risk of ambiguity and misunderstanding of the provisions of the law:

The contributions of subscribers are not premiums in the sense of conventional insurance. To comply with the Sharia, Takaful "premiums" are treated as Tabarru or donations, and the rights and obligations of Tabarru differ subtly from those attached to conventional insurance premiums. For example, the explicit guarantees given by the risk transfer of conventional insurance do not exist in the case of Takaful. Customers of Takaful companies do not necessarily well understand this. Many issues relating to the nature of the contractual relationship created by donation in the event of losses have not yet been tested in the courts. (Yaquby, 2000) states that this ambiguity and lack of clarity in the contractual relationship contains elements of Gharar.

2.3 Risks specific to the Kuwaiti Takaful market

The political, economic, legal and institutional framework in Kuwait is currently less supportive of the Takaful industry developments comparing to other countries. The risks discussed in this section, although they exist for all Takaful companies, are greater for companies operating in the Kuwaiti market. These expectations concerning risks in the Kuwaiti market are investigated by undertaking six in-depth interviews conducted with senior executives of six Takaful companies in Kuwait. The interview results, reported and discussed in the next section, are largely supportive of these expectations.

Kuwait is one of the richest countries in the world on a per capita basis. The demand for Sharia-compliant insurance products in Kuwait is rising faster than demand for conventional insurance products in core markets. Kuwait has the potential to become a leading provider of Takaful and other Sharia-compliant financial services. However, this great potential has so far not been fulfilled. In Kuwait, Takaful firms are struggling to compete, not only with each other but also with the already well-established conventional Kuwaiti insurance firms. That has however resulted in a continuous and accumulated losses for many Takaful operators and a very stagnant growth for the industry in Kuwait.

In contrast, the Takaful insurance sector worldwide between 2005 and 2010 witnessed growth in the gross contribution of about 33.2 % percent, compared the conventional sector which achieved 19.9%. (Hagagy, 2014) Reports that at the beginning of 2014, while certain sectors of the Takaful market were doing well, the general situation for the Kuwaiti Takaful sector remained bleak and static, even by the relatively undemanding standards of the Middle East and North Africa. The report also pointed out that how the unlike Bahrain, Qatar and the United Arab Emirates, the government is not seeking to promote the development of financial services effectively. Kuwaiti Takaful insurance companies are small, even by the standards in the Middle East, including the twelve Takaful companies that make up around 20% of the activity in the sector.

Kuwaiti Takaful companies face severe competition from their conventional rivals, which have been founded for decades, and which have built strong client bases and amassed huge financial surpluses. Abdulrazaq M. Al Wohaib, managing director and chief executive of T'azur Takaful Insurance Co. is cited in (Hagagy,2014) stating "While Islamic finance broadens its global footprint, Kuwait's Takaful sector could shrink in the next five to seven years" and "We are moving opposite to the rest of the world - this has reduced the profit margins of these companies". Gross Takaful contributions in Kuwait have recently grown by an estimated 4.3 percent in 2012 and 4.5 percent in 2011, among the lowest growth rates for Takaful anywhere in the world. As per the Ministry of Commerce statistics, in 2012 the Kuwaiti Takaful companies posted premiums of $167.7 million, about 18.7 % of total insurance premiums. Of the then eleven locally incorporated Takaful companies, many firms in the field have failed to post proportionate profits.

Takaful is a form of cooperative risk sharing using charitable donations and based on the concept of mutuality. The policyholders, or insured, or subscribers pay a premium to a fund as a donation for those who suffer losses. The policyholders are then entitled to receive a surplus from the cooperative insurance fund, just as they will help make up for any deficits. The premium of the donation will differ, based on the risk's degree. However, when a deficit occurs in the policyholders' fund an interest-free loan is requested from the shareholder's fund. That may lead to losses for the shareholders. The risk of deficits in the policyholders' fund is substantially increased by aggressive price undercutting by conventional firms, aiming to drive Takaful firms from the market (Saad Ebrahim Makki, Vice Chairman and CEO of Takaful International Co, a unit of Bahrain's Takaful International, cited in (Hagagy, 2014).

The Takaful field suffers from the lack of a supervisory framework specifically addressing the needs of the Takaful industry. Many of the Takaful sector's problems linked to the need for clearer more supportive regulation (Shrif and Ahmed, 2017). That can result in adverse competitive practices. For example, one criticism of the

Kuwaiti Takaful sector is that some companies concentrate on the investment activities rather than focusing on providing insurance services. Under the current Kuwaiti regulations, setting up what is essentially an investment company as a Takaful company can avoid the stringent regulations of the Kuwaiti central bank. Some such companies were founded with the aim of "capital investment, no more, no less". However, if the government continues with the policy of allowing the market to flood with new Takaful insurance companies without a proper regulatory framework, problems may be stored up for the future. These problems may become visible in the future in the form of deficits in the subscribers' fund, resulting in severe reputational damage, loss of customers, and even posing an existential threat to affected companies.

A further restraint on the development of the Takaful industry is that "the Takaful sector has only limited access to lucrative contracts from the oil sector, as regulations require firms to be listed on the local stock market to bid for such business, a requirement met by only two Takaful firms" Al Wohaib, as cited in (Hagagy, 2014). However, Hussain Ali Al Attal, Chairman and Managing Director of First Takaful Insurance Co. as cited in (Hagagy, 2014) criticized the Kuwaiti regulations towards the Takaful sector, noting that "The lack of local business opportunities is pushing companies such as First Takaful to explore the Saudi Arabian and Turkish markets in order to diversify their sources of income and gain further experience".

3. Methodology

The particular focus of the research was the impact of Sharia law on risk management and concerns the particular risks faced by Takaful insurance companies as opposed to conventional insurance companies. Section 5 presents and discusses the findings from the interviews conducted with risk managers and other officers from the sample companies. The paper concludes with questions for future research and with some provisional recommendations for the development of the Kuwaiti Takaful industry.

3.1 Participants and data collection:

Six in-depth interviews were conducted with senior executives of six large Takaful companies in Kuwait, the research was conducted as part of the first author's MSc Project Risk, Crisis and Resilience Management Dissertation, and complies with the methodological standards and requirements of the Research Ethics Committee of the University of Portsmouth Business School.

Standard letters were sent to 10 Kuwaiti Takaful insurance companies requesting interviews with senior risk managers. Six were returned with approval to conduct the interviews. The interview questions comprised both open and closed questions and

focused on the risks involved in Takaful insurance companies, and how management responds to those risks. The interview minutes were recorded in a diary during the interview. Subsequently, the minutes from the meetings were reviewed and summaries of the main points were made.

3.2 finding and discussion:

The majority of the respondents answered that there are a certain risks involved in their Takaful insurance companies, specifically underwriting risk, investment risk, market risk, business and strategic risk, operational risk, liquidity risk, Retakaful risk, risk of non-compliance with Sharia provisions, risk of deficit in the subscriber's fund, reputational risk and the risk of competition. Also, the respondents discussed their management plan to deal with some of these risks. All types of risk in Takaful require specific risk management strategies and therefore need to be managed on both an individual basis as well as on an integrated basis. The following section describes the risks identified by the interviewees, the frequency and severity of these risks, and how the management sets out to reduce the impact of these risks. Figure 1 illustrates the risks in Kuwaiti Takaful companies.

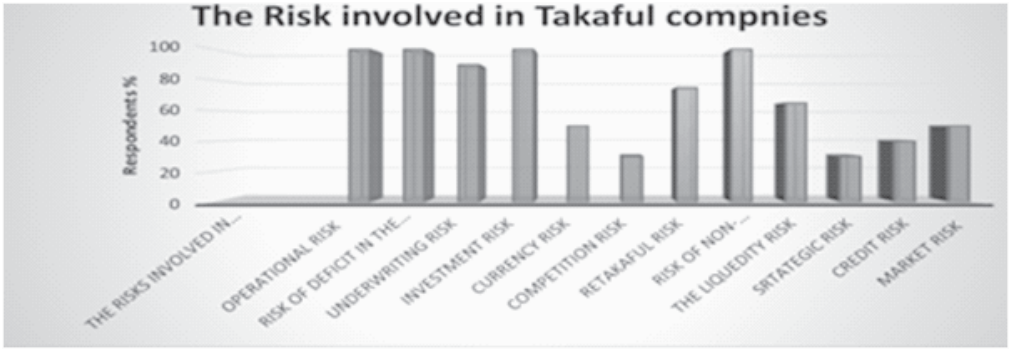

Figure 1: Risks in Kuwaiti Takaful Companies

Figure 1 shows the most significant risks and the severity of these risks as identified by the managers in the study. Risks in Takaful insurance companies can be classified into two categories, general risks and unique risks. The general risks are those risk shared by both Takaful and conventional insurance firms (Section 2), while unique risks are those risks specific to Takaful companies (Section 3). The most important of the general risks identified in the interviews are currency risk, operational risk, liquidity risk and market risk. The unique risks include Sharia non-compliance risk, the risk of the deficit in the subscriber's fund, Retakaful risk and investment risk. The boundary between general and unique risks is not always clear. As noted in the previous discussion, general risks are often magnified when combined with unique risks. For

example, investment risk is common to both Takaful and conventional insurers. However, investment risk is classified here as a unique risk, since it is greatly increased in the context of Takaful. The most severe of the unique risks identified in the study is the risk of the deficit in the subscriber's fund. Some of the general risks and the management of these risks does not differ significantly from conventional insurance. These risks and the overall approach is taken to control these risks are summarised in Table 2. These do not differ much from the general approach taken in conventional insurance.

Table 2: Risk and their management approach

Risk	General management Approach
	Development of rules, procedures and documentation to minimise loss or reduction. Requirements on the insured to comply with appropriate substantive rules and technical requirements on the construction of buildings.
	The launch of a promotional campaign for the new product during the first months of production. Product pricing compatible with product profitability. Weekly sales reports. An appropriate system of incentives. Staff training and marketing before submitting the product to the market.
Risk from information technology (included in operational risk)	Conduct regular maintenance of all equipment. Constant updating of all information technology systems. Adequate procedures for security and password protection (e.g. changing passwords on a regular basis). Conduct training sessions for all IT staff.
Underwriting risk	Setting limits for natural catastrophe exposure accumulation, per event and per county. Pricing and business diversification made using actuarial analysis. Documentation should be clear, comprehensive, and transparent, and issued promptly. Staff training sessions.
(General) investment risk	Analysis of security and credit rating of counterparties. Country and asset class diversification. Continuous monitoring of default risk and concentration risk.
Liquidity risk	The appropriate balance between liquid, low expected return assets and illiquid, high-expected return assets, and the expected amount of claims and expenses. Diversification into several currencies.
The risk of fraud	Competent staff experienced in the preparation of contracts and settlement procedures in the event of claims. Competent fraud detection and investigation. Cooperation with other insurance companies to prevent or reduce the incidence of fraud.

Respondents were asked about how the various the risk management procedures and issues were related in general. Again, the overall response is the same, in general, like that for conventional insurers. Risk management procedures require the existence of independent risk management. Independent risk managers implement procedures to minimise risks, to mitigate the effect of losses, to evaluate the probabilities, amount and timing of possible losses, to reach the most appropriate means of controlling these risks and reduce the costs of dealing with them, to ensure the adequacy of resources in the event of the occurrence of adverse outcomes, and to ensure resources are available to perform all of the firm's obligations.

Figure 3. Risk Management Procedures

While there is significant overlap between risk management in Takaful and conventional insurance, interviewees' responses showed that there is a remarkable divergence between the risks of Takaful companies and those of conventional insurers, as shown in Figure 4.

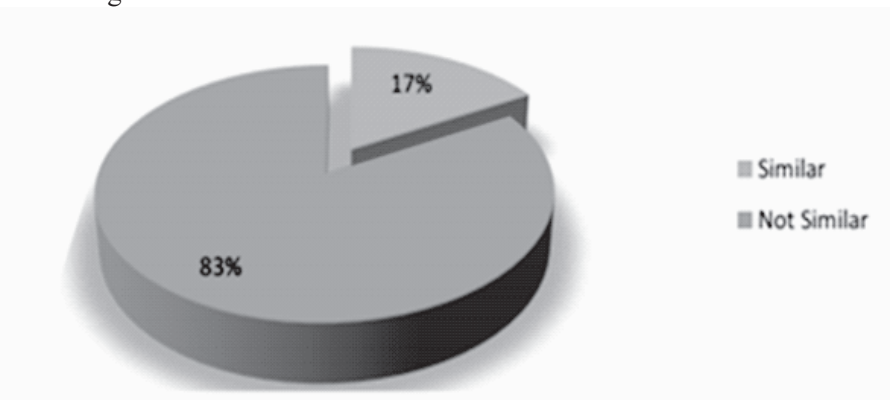

Figure 4. Risk Similarities

Considered next are those risks specific to Takaful companies, which are not faced by conventional insurers. There are some such Takaful specific risks. The respondents identified the risk of the deficit in the subscribers' fund to be the greatest of these risks. That is not only because this risk poses an existential threat to Takaful insurers, but also because it is inextricably linked to other major Takaful specific risks.

When there is a deficit in the subscribers' fund, the shareholders offer from their funds an interest-free loan to the subscribers' fund. This loan must be repaid from the subscribers' fund from the net achieved insurance surplus in the coming years. The idea of covering a deficit in the subscribers' fund by an interest-free loan from the shareholders' fund is an important innovation in Islamic finance. It provides a practical, Shariah compliant solution, which is almost universally accepted by scholars and practitioners in the field. However, while it mitigates the immediate problem, the extension of an interest-free loan impacts severely on other areas of concern.

Firstly, the occurrence of a deficit damages the reputation of the firm and the Takaful insurance industry. The obligation to repay the loan out of future surpluses makes the company's products less attractive to current and prospective customers and limits the growth prospects of the company. The attractiveness of the company to current and prospective investors is reduced, further damaging the growth prospects and stability of the firm.

The respondents identified further issues relating to the subscribers' fund, relating to the distribution of surpluses. Four different methods of distribution were discussed.

1. *In proportion to the subscriptions of the member and for all the policyholders.*

2. *Confining the distribution of the insurance surplus to policyholders who did not obtain compensation during the fiscal period.*

3. *Confining the distribution of the insurance surplus to policyholders who obtained compensation less than their instalments. The right of these people is confined to the difference between the paid subscription and due compensation during the financial period.*

4. *Distributing the insurance surplus among the policyholders and the shareholders. That may take place under the shareholders being partners in managing the insurance portfolio and realising the profits resulting from its investments. However, this confined to the shareholders' right of the profit ratio agreed upon as an investor, or in the agreed upon wage as an agent in managing the insurance portfolio.*

During the discussions, issues were raised that could seriously affect the reputational risk. There is no accurate segregation between the forty individual funds (e.g. the motor subscribers' fund, the medical subscribers' fund, etc.). The aggregation of distributions can lead to inequitable treatment of policyholders. These problems are magnified by the occurrence of deficits in the subscriber's' funds. For example, in the event of the motor fund achieving a deficit and the medical fund achieving a surplus, the motor deficit would be covered from the medical surplus, leading to reduced returns to the medical fund subscribers. These issues concerning the equitable Shariah-compliant treatment of policyholders in different funds is not yet resolved.

Finally, the respondents were asked specifically how risk management in Takaful companies is affected by religion. First, the respondents stated that risk management is a process of taking calculated risks, systematically identifying and measuring risks, prioritising the risks and implementing strategies to reduce these risks, these methods including those of early detection and prevention. Secondly, the respondents stated how the Sharia affects risk management in their institutions and their belief that and they believe that Takaful insurance companies are riskier than conventional insurers. They pointed out the following to support their opinions and to demonstrate how religion affects their risk management. Note that the risks discussed below were all identified as being among the most serious, as indicated in Figure 1.Figure 5 illustrate the respondents thought about the impact of Sharia law on the Takaful insurance.

Figure 5: The impact of Sharia law on the Takaful industry

Investment risk: Limited investment opportunities are complying the Sharia law. This impacts on the maturity matching of assets and expected liabilities, expected investment returns, the risk of inadequate diversification, and on liquidity risk. The requirement to purify returns of non-Sharia compliant income reduces investment returns. Further, there is the risk of investments previously deemed to be Sharia compliant subsequently being classified as non-compliant. All of these investment risks increase the risk of the deficit on the subscribers' funds.

Underwriting risk: An accepted insurance risk may be subsequently recognised as non-Sharia compliant, requiring the company to terminate the insurance contract or donate the premium to charity. Sharia obedience is a continuous procedure, and the underwriter must comply with Sharia law at all times. The possibility of failing to comply with the Sharia in underwriting activities was identified by the respondents as a severe risk, potentially leading to high losses.

Operational risk (staff training): The Takaful market is witnessing increases in the number of Takaful suppliers. However, new Takaful companies cannot remain and compete in the market unless recruited with fully Takaful qualified staff. There is a serious shortage of Takaful professionals and insurance Sharia advisors. The Takaful industry is in serious need of adequately qualified and experienced academic, professionals, and Sharia scholars. Again, it is noted that these operational risks feed through to, and exacerbate the risk of the deficit in the subscribers' fund.

4. CONCLUSION, RECOMMENDATIONS AND QUESTIONS FOR FUTURE RESEARCH

This paper aimed to gain a comprehensive outlook on the impact of Sharia law on risk management in Takaful insurance companies. Many risks are common to both Takaful and conventional insurers, including liquidity risk, investment risk, underwriting risk, operational and currency risk. Thus, risk management in Takaful insurance has much in common with the risk management of conventional insurance companies. However, Takaful insurers face additional risks beyond those faced by conventional insurance companies. That is because Takaful insurance is constrained by Islamic Sharia law. These Takaful-specific risks are exacerbated in the current legal, regulatory and institutional framework of the Kuwaiti Takaful market. Interviews were conducted with senior managers of six of the major Takaful insurers in Kuwait. The Takaful-specific risks identified include the following:

- The lack of awareness of customers and potential customers of the differences between Takaful and conventional insurance and on the rights and obligations of customers and Takaful insurers
- The need for more personnel adequately qualified and experienced in Takaful insurance
- The current uncertainty over which practices conform to the Sharia and which do not, this uncertainty arising because of the currently still-developing Sharia, regulatory and legal framework within which Takaful operates
- In particular, the lack of segregation between different subscribers' funds is a practice that appears to violate the Sharia restriction of avoiding Gharar
- Competition from much larger, long-established and financially strong conventional insurers

- The lack of sufficient Sharia compliant investments available for Takaful insurers
- The lack of a sufficiently large and developed Retakaful market
- The risk of the deficit in the subscribers' fund.

Of the Takaful-specific risks, the risk of a deficit in the subscribers' fund was identified during the interviews as the most severe.

- Deficit risk poses an existential threat to Takaful insurers.
- Deficit risk is central in that virtually all of the conventional and Takaful-specific risks combine together to increase the risk of a deficit in the subscribers' fund.
- Thus, the probability of a deficit in the subscribers' fund can be regarded as a key measure of the performance of the overall risk management of the Takaful firm.

Most of the above risks are increased in the context of the Kuwaiti market. In particular, the currently low legal and regulatory entry requirements in the Kuwaiti Takaful market increase the competition risks for those Takaful firms that do maintain high prudential standards in their pricing and underwriting practices.

To a great extent, many of the problems identified above will be addressed naturally as the Takaful market continues to grow, mature and consolidate. Indeed, the high and sustained rates of growth of the Takaful industry show that the core ethical, social and economic case for Sharia-compliant financial services remains undiminished. This strong growth indicates as well the success of the ongoing contributions made by governments, regulators, scholars, practitioners and researchers. The paper concludes with two directions in which this development can be further promoted.

The first of these is a recommendation for developing the legal, regulatory and institutional structures of the Kuwaiti Islamic financial services market, to exploit the immense opportunities for expanding and diversifying the Kuwaiti economy and in contributing to the global development of Islamic finance.

The second concerns the role academic researchers may play in addressing the challenges of risk management in Takaful insurance. In this paper, the risk of the deficit in the subscribers' fund has been identified as one of the most severe Takaful-specific risks facing the Takaful industry. While practitioners are aware of the severity of deficit risk, it has so far not been much discussed in the academic literature. Researchers in academic finance can contribute to the solution of managing deficit risk by applying the techniques of mathematical finance, already well developed in the analysis of risk in conventional finance to the management of deficit risk. In conventional insurance and conventional finance generally, mathematical models have been developed extensively to identify, measure, predict and control a great variety of

financial risks. The same applied techniques will prove to be a great benefit when applied to deficit risk. The outcome of this research will be a multi-factor model, or models, which can be used to estimate the probability, timing and magnitude of deficits in the subscribers' fund. Such models will include many factors. As discussed in the paper, deficits are caused by the combination of many factors, including the fee structure, investment returns and underwriting policy. These and other factors are expected to be significant in the statistical analysis of the model's performance.

The availability of well-motivated and empirically tested deficit prediction models will have many applications to risk management in Takaful insurance and will be of interest to researchers, scholars, regulators, managers, investors, customers and other stakeholders in the Takaful industry.

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