COMPARATIVE STUDY ON RISK: CONVENTIONAL INSURANCE VS TAKAFUL IN MALAYSIA

BY

NOORUL AZRIN MD NASIR

A research paper submitted in fulfillment of the requirement for the degree of Master of Science in Islamic Banking and Finance

IIUM Institute of Islamic Banking & Finance
International Islamic University Malaysia

MAY 2014

ABSTRACT

Naturally, both conventional insurance and *Takaful* industries are exposed to risks. This study seeks to compare the compare the risks between conventional insurance and *takaful*. The study focuses primarily on three key risks, namely liquidity risk, operational risk and underwriting risk. The risks were measured using Mann-Whitney U Test and standard financial ratios commonly used for measuring the performance of insurance companies, namely Combined Ratio and Retention Ratio for Operational Risk, Liquidity Ratio and Technical Reserve Ratio for Liquidity Risk, and finally Claims Ratio and Expense Ratio for Underwriting Risk. A sample of six listed *Takaful* Operators and nineteen conventional Insurance operators in Malaysia were used for this study, covering the period from the financial year 2007 until financial year 2012. It is observed that based on Mann-Whitney U Test, conventional insurance operators have significantly higher combined ratio than *Takaful* operators, while the *Takaful* operators have a significantly higher retention ratio than conventional insurance operators. In terms of liquidity, there is no significant difference in Liquidity Ratio and Reserve Coverage between *Takaful* operators and insurance operators throughout the study period. Takaful operators are spending more than conventional insurance firms to run their business, as the expense ratio for *Takaful* operators is significantly higher than conventional insurance firms.

Keywords: *Takaful*, Insurance, Liquidity Risk, Underwriting Risk, Operational Risk

ملخص البحث

طبِيعيٌ أن يتعرض كُلٌّ من التأمين المألوف وكيانات التكافل للأخطار. تبحث هذه الدراسة في مقارنة الأخطار بين التأمين المعهود وكيانات المشاريع التكافلية. تركِّز الدراسة أساسيًّا على ثلاثة أخطار؛ خطر التقدير الاتفاقي، وخطر الإجراء العملي، وخطر التأمين السَّنَدي. وقد قِيسَت هذه الأخطار باستخدام اختبار يُو لِـ مَان وِتْني الموسوم بـ (*Mann-Whitney U Test*) مع النِّسْبات المالية المعيارية المشتهر استخدامها لقياس الأداء العملي في شركات التأمين؛ المسَمَّاة بالنسبة المشتركة مع النسبة المحتفظة لخطر الإجراء العملي، ونسبة التقدير الاتفاقي مع نسبة الاحتياط التقني للخطر الاتفاقي، وأخيرًا نسبة المطالبة مع نسبة النفقة لخطر التأمين السَّنَدي. وقد استعرضت الباحثة نموذجًا للمؤسسات التكافلية الست وجميع مؤسسات التأمين التسع عشرة المألوفة بماليزيا في هذه الدراسة، محيطِةً بالمدة التي تتراوح بين العامين 2007م و2012م. ثم بعد ذلك تمت الملاحظة عبر اختبار مَان وِتْني أن مؤسسات التأمين المألوفة تمتلك قَدْرًا من النسبة المشتركة أعلى مما تناله مؤسسات التكافل، حينما تمتلك هذه المؤسسات التكافلية قَدْرًا من النسبة المحتفظة أعلى مما تناله مؤسسات التأمين المألوفة. وفيما يتعلق بالتقدير الاتفاقي، ليس هناك الفرق الجوهري في نسبة التقدير الاتفاقي والتغطية الاحتياطية بين مؤسسات التكافل ومؤسسات التأمين في ضوء هذه الدراسة. بل إن مؤسسات التكافل تنفق أكثر مما تنفقه حقول التأمين المألوفة في إدارة تجارتها، عِلْمًا أن نسبة نفقات مؤسسات التكافل أعلى مما كان عند هذه الحقول المألوفة.

الكلمات المفتاحية: التكافل، التأمين، خطر التقدير الاتفاقي، خطر التأمين السَّنَدي، خطر الإجراء العملي

APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Science in Islamic Banking and Finance.

....

Dr. Sheila Nu Nu Htay
Supervisor

This research paper was submitted to the IIUM Institute of Islamic Banking and Finance (IIBF) and is accepted as a partial fulfillment of the requirements for the degree of Master of Science in Islamic Banking and Finance.

....

Ahamed Kameel B. Mydin Meera
Dean, IIUM Institute of Islamic
Banking and Finance

DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Noorul Azrin Md Nasir

Signature .... Date ...21/4/2014......

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR USE OF UNPUBLISHED RESEARCH

COMPARATIVE STUDY ON RISK:
CONVENTIONAL INSURANCE VS TAKAFUL IN MALAYSIA

Affirmed by Noorul Azrin binti Md Nasir.

.... 21/4/2014
Signature Date

ACKNOWLEDGEMENT

In the name of Allah, the Most gracious, the Most merciful.

Firstly I would like to express my gratitude to Allah SWT, for without His blessing and will, I would not be able to complete this research paper. My most profound gratitude and deepest respect to my supervisor, Dr Sheila Nu Nu Htay for her support, encouragement, valuable experience and constructive comments throughout the duration of this research. Thank you for your endless support and guidance, and for being extremely patient with me in completing this research. I would also like to thank the academic staff from the IIUM Institute of Islamic Banking and Finance (IIiBF) for their valuable insights which had directly or indirectly helped me in completing this research. I would also like to take this opportunity to thank my classmates in IIiBF for their support and encouragement in completing this research, for without them, this research will be less enjoyable for me to go through it alone.

Saving the best for last, I would like to thank my parents, for their support and prayers. Thank you for believing in me and I hope I made you proud with the completion of my Masters degree. To my closest family and friends, you know who you are. Thank you for the encouragement and pushing me forward during the hard time.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In life, one cannot escape from being exposed to risks. Everybody is exposed to risk and disasters such as deaths, accidents and losses. It's only natural that we find the mechanisms to use in order to manage or at least reduce the impact of the risks, since we cannot eliminate the risk 100%. Conventionally, insurance is a risk transfer mechanism in which the risk is transferred from the policy holder (the insured) to the insurance company (the insurer) in consideration of 'insurance premium' paid by the insured. Before the *takaful* industry began to emerge in the Malaysian financial system, Muslims and non Muslims alike depend on conventional insurance operators to mitigate the risks in their life. Insurance is the mechanism that can help to reduce the impact in case of losses that happened from accidents and other event whether expected or unexpected.

Islamic insurance or *takaful* is not a new concept. *Takaful* in business transactions was believed to be established in the early second century of Islamic Era when Muslims Arabs began trading internationally to countries like India and other countries in Asia. In order to protect each other and based on principal of mutual help, the traders contribute to a fund and use the fund to compensate anyone who suffered losses.

The word *takaful* comes from the Arabic word 'kafalah' which means joint guarantee. *Takaful* operations are based on three concept, which are *Takaful*, Mudharabah/Wakalah and Tabarru'. The concept of *takaful* is when a group of participants agree to contribute to a pool of fund in order to jointly guarantee each other against loss. Based on the Mudharabah model, the *takaful* operators acts as the administrator for the fund and manage the fund on behalf of the participants. Mudharabah gives the right to both parties to share the profits, and the loss will be borne by the participants only. Based on wakalah model, the *takaful* operators will be paid service fee for the service they provided to the participants. Under the concept of tabarru' the participants agree to relinquish a certain proportion of the contribution into a fund, to assist other participants who are suffered difficulties.

Both conventional insurance and *takaful* are exposed to risks. Among the common risks faced by both sectors are liquidity risk, market risk, credit risk, operational risk and underwriting risk. While a lot of studies has been done to discuss the risk management of these insurance operators, conventional and Islamic alike, few studies has been done in measuring and comparing the risks face by them quantitatively.

1.2 Comparison between Insurance & *Takaful*

Conventional insurance and *takaful* both have a common objective of reducing financial burden in case of any disasters or accidents. However, they also have differences in terms of concepts, characteristics and operations. Conventional insurance is an exchange contract between the insurer and the insured in which the insurer provides coverage against losses in exchange of a pre-agreed premium. It is the policy holder's responsibility to pay the premium to the insurer and the insurer will be liable to pay insurance benefits as they had promised.

Islamic insurance or *takaful*, on the other hand, is developed based on mutual responsibilities, co-operation and protection of one another based on the concept of tabarru' (Osman, 2003). Tabarru' is an Arabic word which means donation. Under *takaful*, participants make contributions (premium) to the scheme and mutually guarantee each other under the scheme. The *takaful* operators will be the administrator of the scheme and will pay *takaful* benefits from the *takaful* fund. Since *takaful* is the Islamic insurance and must comply with *Shariah* rules, the assets of the *takaful* funds are invested in *Shariah* compliant instruments. (BNM, 2005)

The main purpose of *takaful* is to bring equity to all parties involved, and the objective of the contract is to help the participants through difficulties. Unlike conventional insurance, earning profit from this operation is not the main goal, but rather helping each other based on the concept of brotherhood and mutual co-operation. However, sharing the earned profit is permissible under the concept of mudharabah. (Maysami & Kwon, 1999)

Conceptually, conventional insurance is very different with *takaful*. While *takaful* is based on joint guarantee and mutual help concept, conventional insurance is based on obtaining material gain and compensation of loss in exchange of the premium paid. Unlike conventional insurance, *Takaful* is based on *Shariah* principles, hence it is also regarded as ibadah with consideration based on the mutual help concept. For conventional insurance, which are not based on any religion, the purpose of it is to protect the risk-averse parties from suffering and at the same time obtaining material gain. Due to no restrictions on religion, the fund is also invested in non-halal activities such as gambling and riba'-based investments.

In terms of risk sharing, the conventional insurance operators agree to undertake the risk of the policy holders in exchange for a premium. However, its counterpart, the *takaful* operators do not undertake the risk. The risk is actually distributed to participants of the fund who had agreed to share the risks.

Operationally, conventional insurance involves the elements which are forbidden in *Shariah* principles which are gharar (uncertainty), Maysir (gambling and riba (interest). Gharar in conventional insurance can exist in several areas such uncertainty in the outcome, uncertainty in the results of the exchange and finally uncertainty in the contract period. It also involves the element of gambling in which the policy holders contributes a small amount of money hoping to gain a large sum, and when the insured event do not occur, they will lose the money. As mentioned before, since conventional insurance is not tied to any obligation to conform to religious rules, their insurance funds are invested in riba based financial instruments. The existence of the mentioned elements will cause unjust to one or even both parties in the contract. Therefore, as Islam is known as the religion which protects the well-beings of human, these elements do not exist in *takaful* operations. This will ensure that the transaction will be beneficial for both parties and non of the parties are manipulated or treated unjustly.

1.3 Background of Insurance and *Takaful* in Malaysia

Insurance is a form of risk management primarily used to provide coverage against losses. Other functions on insurance include cost stabilization, reduction of loss, capital investments and also removal of uncertainties. The existence of insurance in Malaysia can be traced back to 18th century due to colonial & growth of trade with Great Britain. Hence, the insurance industry in Malaysia is modeled based on the British system.

In 1963, the Insurance Act 1963 was enacted to govern the insurance sector in Malaysia. The act provides licensing and regulations for insurance business and financial advisory business. In 1996, Insurance Act 1996 was enacted to replace the Insurance Act 1963 to make the law more effective.

The insurance industry was brought under the supervision of the Malaysian central bank, Bank Negara Malaysia (BNM) in 1988. This widens BNM scope for action in managing the regulatory framework. The central bank implemented close supervision of solvency and market conduct and strengthened regulatory framework in 1990s. Such actions were aimed to enhance the professional standards in the industry and consumer confidence.

In Malaysia, the development of *takaful* industry begins in 1980s due to increasing needs and consciousness of Muslims in Malaysia for *Shariah*-compliant financial instruments, which includes the alternative to conventional insurance. The increasing consciousness was believed to be triggered by decision made by the National Fatwa Council of Malaysia in its 16th Conference of the Fatwa Committee of the National Council for Islamic Religious Affairs Malaysia (JAKIM). The council released a statement that life insurance contract is a void contract because of the existence of elements that do not conform to Islamic principles such as riba, gharar and maysir. (Jabatan Kemajuan Islam Malaysia, 1979)

In 1984, the *Takaful* Act was enacted and the first *takaful* operator, Syarikat *Takaful* Malaysia was incorporated in Malaysia in November 1984. The act was enacted to govern the conduct of *takaful* business and requires the *takaful* operators to be registered. It also requires the establishment of *Shariah* Committee to ensure that the business activities of these *takaful* operators conform to *Shariah* principles.

Takaful is one of the core components of Islamic Financial System in Malaysia, along with Islamic banking and Islamic Capital Market. The government effort in developing of these core components provided a conducive environment for the *takaful* industry to prosper and providing a competitive edge for the industry to keep pace with the conventional insurance.

Since then, the *takaful* industry in Malaysia has experienced rapid growth and transformation. In 2001, the Financial Sector Master Plan (FSMP) was introduced. Islamic banking and *takaful* industry benefited from this master plan as among the objectives of this master plan is to enhance the capacity of *takaful* operators and strengthening the legal, *Shariah* and regulatory framework. Malaysian *Takaful* Association (MTA) was established in 2002 in order to further enhance the development of *takaful* industry. The mission of MTA is to provide leadership on issues in the industry and to influence decision made by government and regulators to benefit the industry itself. Currently, the *takaful* industry has a broad range of products, distribution channels and investment channels.

1.4 *Shariah* View in Risk Management

Risk is often seen as a threat and that it must be avoided or even mitigated through other mechanisms. One of the examples of the mechanisms is insurance. Conventionally, risk can be transferred to another party, who is willing to take risk. Avoiding risks at the expense of the others are deemed acceptable and is currently being practiced throughout the world.

Muslims believe in qada' and qadr, and everything happens by the will of Allah SWT. However, the religion also encourages the believers to take precautionary measures to reduce the impact of any risks. Nevertheless, in doing so, Muslims are not allowed to oppress to the other party, as what is happening in some conventional insurance contracts. Anas ibn Malik reported:

One day Prophet Muhammad (peace be upon him) noticed a Bedouin leaving his camel without tying it. He asked the Bedouin, "Why don't you tie down your camel?" The Bedouin replied, "I put my trust in Allah." The Prophet then said, "Tie your camel first, then put your trust in Allah". (al-Tirmidhi)

This hadith taught us that we should put our best effort to protect ourselves from unwanted incidents and then only we could leave the results to Allah SWT. While we must put our trust in Allah SWT, we must also do our parts and be prepared before we leave everything to His will. There is also a verse in the Quran which states "Verily never will Allah change the condition of a people until they change it themselves (with their own souls)..." (Quran 13:11). While it is true that only Allah knows one's future and fate, Muslims should strive to achieve the best in the current world and also the hereafter.

The concept of risk management is also applicable to *maqasid al-Shariah* or the objectives of *Shariah* principles. These principles are classified into three parts, namely *daruriyyat* (the essentials or necessities), *hajiyyat* (the complementary benefits) and finally the *tahsiniyyat* or the embellishment. *Daruyiyyat* refers to the essentials that the human beings depend on to and without these necessities, they cannot function and will give a negative impact to the society as a whole.

These necessities must be fulfilled whether individually, by government or other authorities before fulfilling the other two objectives of *maqasid al-Shariah*. The five fundamentals of necessities are protection of *al-Din* (religion), protection of *al-Nafs* (life), protection of *Nasl & al-'Ird* (human being & family), protection of *al-'Aql* (intellect) and protection of *al-Mal* (property). The concept of *takaful* which is sharing the misfortunes of participants are directly related to fulfillment of these fundamentals.

While the scholars do not unanimously agree that protecting oneself through insurance, conventional or not, is permissible, they also could not find a common reason that protecting oneself against disaster is non-permissible. Therefore, *takaful*, which is the alternative to the conventional insurance can be accepted as a mechanism to protect oneself, society or businesses.

1.5 Risk Management in *Takaful*

Risk management is the process of identification, assessment, and prioritization of risks, followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate event (Hubbard, 2009). Naturally, risks will always exist even with our best efforts to safeguard ourselves by taking precautionary measures.

Why is it important for us to manage the risk? For Muslims, the fulfillment of the first component of *maqasid al-Shariah* which is *daruriyyat* is vital to ensure the continuity of human beings existence and the ability to function individually and within the society as a whole. Managing risk involves identifying the risks, qualifying and evaluation of the risks, managing the risks through risk control, by reduction or avoidance, although as a Muslim, one cannot avoid the risk completely, and finally minimizing the impact of risk. Inefficient risk management, especially in risk identification, analysis and control and also poor integration between risk management and other key processes will result in ineffective risk management.

In *takaful* industry, risk management is the process to identify potential losses of an operator and selecting the most appropriate techniques for treating potential losses. Bank Negara Malaysia (BNM) requires the *takaful* operators to observe the Guidelines on Directorship for *Takaful* Operators in order to ensure the effectiveness of overall management. The guidelines govern the appointment of directors and chief executives and the setting up of board committees, including risk management committee. According to the guidelines, one of the primary objectives of the board committee is to establish risk management committee. The main objective of the risk management committee is to oversee the senior management's activities in managing the key risk areas of the insurer and to ensure that an appropriate risk management process is in place and functioning effectively (Bank Negara Malaysia, 2011). If the risks are managed effectively, the operators may be able to achieve their corporate objectives and eventually create value for their policyholders.

Takaful operators adopted several important techniques of risk management such as self assessment risk, asset liability management (ALM), solvency capital and re*takaful*. Key risk indicators (KRI) warn the business on possibility of risk and any losses and business continuity management. (Aris, Tapsir, & Talib, 2012)

Recently, it is the trend for the *takaful* operators to adopt the Enterprise Risk Management (ERM). The *takaful* and conventional insurance operators, through their own Board of Directors implemented the ERM framework to ensure ongoing process of identifying, evaluating, monitoring and managing the significant risk exposures surrounding its business operations. The implementation of ERM in their organisation formalised the essential connection between the business operations and its overall risk management program (Shimpi & Lowe, 2006). ERM include not only management of risks associated with accidental losses, but also other risks such as financial, strategic, operational risks.

1.6 Problem Statement

By nature, *Takaful* is more risky than conventional insurance due to the fact that conventional insurance operators are able to invest their fund in fixed income securities, while *takaful* operators are not allowed to do so. Investing in fixed income securities will minimize a lot of risks that will be faced by the operators. Since the elements of Riba and fixed income are not allowed in Islamic transactions, *Takaful* operators cannot invest in the same securities. For many years, there have been a lot of studies done to compare conventional insurance with *Takaful* in terms of operations and concepts. Due to the limited number of research done on comparing the risks of *Takaful* and conventional insurance, this research paper will attempt to compare the risks between conventional insurance and *takaful*. We will focus primarily on three key risks, namely liquidity risk, operational risk and underwriting risk as it may involve a potential threat to stability of these institutions and financial market itself.

1.7 Research Objectives

This study is important especially because of the dual financial system being practiced in Malaysia, where the insurance and *takaful* operators are operating parallel to each other. This study seeks to investigate the performance of insurance and *takaful* operators and also to compare the financial risk between conventional and Islamic insurance (*takaful*) based on financial ratio analysis. The key risks that are faced by these operators were selected and will be used as the variables for this research are liquidity risk, operational risk, underwriting risk.

1.8 Research Questions

1. How did the conventional insurance industry and *takaful* industry perform based on financial ratio analysis during the period of 2007 -2012.
2. Which of the conventional insurance and *takaful* operators are more risky based on the ratio analysis of each key financial risks.

1.9 Significance of the Study

The study of efficiency of *takaful* companies is important for Malaysia as the country is practicing a dual financial system where the *takaful* operators and the conventional insurance are operating in parallel to each other. Hence, this study will be beneficial the following parties since this study investigates which of these two industries are more risky based on the financial data obtained from the annual reports.

Insurance and *takaful* operators/practitioners

For the conventional insurance and *takaful* operators, the findings from this study may be used to improve their risk management framework and overall performance. Identifying and understanding risks provide the foundation of sound risk management. These findings should assist the *takaful* companies in improving their efficiency, in order to gain a competitive edge over their conventional counterparts.

Client & potential client

The findings of this research will also reflect the performance of each operators' risk management Committee and whether their risk management framework is effective. This study will benefit the clients or potential clients because based on the future findings later, the clients or potential clients are able to distinguish the operators which have a sound risk management framework and those who do not implement a good risk management framework. Hopefully this will help them make decisions in choosing the most suitable insurance or *takaful* operators. This study may also help them increase their awareness and understanding of these sectors.

Regulators

Conduct of business, capital requirements and liquidity requirements are some of the regulatory tools involved in insurance and *takaful* industry. Regulators have the power to implement or even influence relevant parties to change policies based on the status of performance of both industries in each sector. Perhaps this study will provide some insights of the performance risk management currently being practiced in insurance and *takaful* sectors.

1.10 Paper Organization

This paper is organized as follows. The first chapter covers the background of the studies, problem statement, research objective, research questions, and significance of the research. The second chapter discusses about the previous researches that have been done related to performance of *Takaful* and conventional insurance sector and literature review on articles related to risk management and measurement in both of the industries. Chapter three describes the methodology and data that are being used in order to get the results and limitation of the studies. Chapter four discussed the findings and analysis of the study and finally, the last chapter concludes the research paper and include suggestions and thoughts on the findings.

CHAPTER TWO

LITERATURE REVIEW

2.1 Previous Studies

Hussain & Pasha (2011) compared conventional insurance with *Takaful* in terms of concept and operations. Based on the study, they discovered that while there is a debate on whether the conventional insurance is in line with *Shariah* law, it is a widely accepted view that conventional insurance is different with *takaful* both operationally and conceptually. Matsawali et. Al (2012) conducted a study on *takaful* and conventional insurance preferences in the case of Brunei and attempted to examine public understanding and preference of the two industries. The result shows that despite the lack of understanding of *takaful* by the majority of the respondents they still prefer *takaful* as compared to conventional insurance. IFSB & IAIS (2006) in its report also compared the characteristics of proprietary and mutual conventional insurance and *Takaful*. The differences between these two sectors had caused regulatory implications such as restrictions on interest-praying bonds and limitations on the use of derivatives.

Saad (2012) investigates the efficiency of general *takaful* and conventional insurance in Malaysia from 2007 until 2009 using Data Envelopment Analysis. The study found that *takaful* companies operating efficiency is below the conventional insurance companies. During the period of the study, both sectors experienced deterioration of Total Factor Productivity (TFP). The research findings show that there is positive growth in the industry but also the technical component shows substantial