

## **A COMPARATIVE STUDY OF THE EFFICIENCY OF TAKAFUL AND CONVENTIONAL INSURANCE IN PAKISTAN**

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### **Abstract**

*In the developed world, it is mandatory for everyone, to have a cover for unexpected losses. On the other hand, in developing countries, the need of such an instrument is much greater, as vulnerability to risk is high as there are very less opportunities available to recover from big losses. Therefore, in developing countries which are generally characterized for having low income levels, and lacking access to good health care, education, sanitation, and social security systems, it is of dire importance to have such a system of risk transfer. Insurance companies offer many services for the wellbeing of individuals and businesses like repaying loss to property, life or business etc. In simple words, insurance company encourages the individuals and entrepreneurs to go for high return activities which certainly possess a big risk. In the absence of such a service, most of the investors hesitate to undertake such business activities. Islamic insurance also known as Takaful, is an alternative model to conventional insurance; which is forbidden in Islam, it having some elements which are against Islamic law such as riba (usury), gharar (ambiguity), and maisir (gambling). In contrast to conventional insurance, Takaful is established on the base of mutual assistance, responsibility, mutual protection and assurance, incorporated into the concept of tabarru (donation). In its traditional form, concept of insurance had been in practice since before the time of Prophet Mohammad (PBUH) and had developed until the nineteenth century. Making the insurance according to Islamic principles started after 1979 CE. It was a Sudanese company which started practical operation of Takaful as Islamic insurance, alternative to conventional insurance.*

**Key words:** Takaful, Traditional insurance.

### **Introduction**

Like any economic activity, insurance industry plays a very fundamental and vital role in the development of socio-economic sectors of an economy by creating risk free environment. It does minimize the risk of economic activities, as well as, channelize the financial resources. A productive and efficient insurance sector also contributes to economic development of a country by changing savings into investment projects through financial intermediation (financial sector assessment: 2005).

The main purpose of insurance is to act as a risk transfer mechanism to protect against losses and provide peace of mind (Sabbir, 2002). The insurance, like any other business service, provides a service by persuading a large number of individuals to pool their own risk to a group, to minimize overall risk (Ali, 2000).

In the developed world, it is mandatory for everyone, to have a cover for unexpected losses. On the other hand, in developing countries, the need of such an instrument is much greater, as vulnerability to risk is high as there are very less opportunities available to recover from big losses. Therefore, in developing countries which are generally characterized for having low income levels, and lacking access to good health care, education, sanitation, and social security systems, it is of dire importance to have such a system of risk transfer.

Insurance companies offer many services for the wellbeing of individuals and businesses like repaying loss to property, life or business etc. In simple words, insurance company encourages the individuals and entrepreneurs to go for high return activities which certainly possess a big risk. In the absence of such a service, most of the investors hesitate to undertake such business activities.

Islamic insurance also known as Takaful, is an alternative model to conventional insurance; which is forbidden in Islam, it having some elements which are against Islamic law such as riba (usury), gharar (ambiguity), and maisir (gambling). In contrast to conventional insurance, Takaful is established on the base of mutual assistance, responsibility, mutual protection and assurance, incorporated into the concept of tabarru (donation) (Adawiya and Scott, 2008).

In its traditional form, concept of insurance had been in practice since before the time of Prophet Mohammad (pbuh) and had developed until the nineteenth century (Billah, 1998). Making the insurance according to Islamic principles started after 1979 CE. It was a Sudanese company which started practical operation of Takaful as Islamic insurance, alternative to conventional insurance. (Renat, 2007). Shiyarikat Takaful Malaysia berhad (STMB) was the first company starting operation in Malaysia in 1985, which was followed by enactment of the Takaful Act 1984 (Mukhtar, 2008).

Due to the importance of insurance in the development of economics of a country and the attribute of being an independent financial institution, it is of dire importance to make a study on the topic when there is dual insurance systems; conventional and Islamic insurance (Takaful), working side by side. Before the formation of insurance rules in 2005, Pakistani insurance sector had only conventional insurance firms. Since then, Takaful industry entered the ground and now, Five Takaful firms (Three general and two family Takaful firms) are in operations. Since 2006, Takaful industry showed a healthy growth in its gross and net premium and asset structure. Some of the firms are listed below

- Takaful Pakistan Ltd.
- Pak Qatar General Takaful Ltd.
- Pak Qatar Family Takaful Ltd.
- PakKuwait Takaful Ltd.
- Dawood Family Takaful Ltd

When it comes to efficiency, it is very important factor for Takaful firms as they are facing intense and head to head competition from the well-established conventional insurers. There are new customers in the market, who were not previously willing to purchase any insurance policy because of its incompliance with Shari'ah. But now, due to the introduction of Takaful, which is in accordance with Islamic law, there are many new customers willing to go

for Islamic insurance. So it is more than possible for Islamic insurers to increase their customer base and increase its market penetration, making a fruitful business share in the market.

Takaful firms have made a significant growth in recent years, and are showing a positive growth rate. This is the core reason which motivates us to make an efficiency and productivity analysis of conventional insurance and Takaful. The sole purpose of our study is to measure the performance of conventional insurance and Takaful industry and their relationship in terms of efficiency and productivity. The comparison of Cost efficiency and total factor productivity are the main areas of interest for our study. With the results and findings of this study, it is expected that the insurers, regulators, and shari'ah boards will try to design innovative Shari'ah compliant products which will in return, instigate Takaful demand and will result in the growth of the industry as a whole.

Moreover, the efficiency measurements will help us understand and evaluate the performance and competitiveness of the industry, how the industry responds to these challenges and which one of the players, is expected to survive and grow in the future. The efficiency measurement evaluates the level of competitiveness from both of the parties i.e. output vs. input, expense vs. return. This study will help us understand the present trends as well as help us understand the future of insurance industry as a whole.

### **Objective of the study**

The aim of this comparative study is to estimate or analysis the Islamic insurance known as takaful and conventional insurance efficiency in our select research area Pakistan. The purpose of the study to look at the efficiency of both sided Islamic insurance (takaful) and conventional insurance which one is more competent and efficient to reduce the risk and much helpful for policy holders, economic development and for future investment

- The aim of the study to analysis which one is much efficient in Pakistan takaful insurance or conventional insurance
- To identify the technological difference between conventional insurance and takaful

### **Literature Review**

#### **Concept of Efficiency**

The concept of efficiency is rooted in microeconomic concepts, namely consumer theory and producer's theory. The former deals with the maximization of utility or satisfaction from the individual perspective, while the latter strives to maximize profit or minimize cost from the producer's perspective (Ascarya and Yumanita, 2006). The current study has its focus on the efficiency from the perspective of producer. Efficiency, as one of the performance parameters, theoretically represents the overall performance of DMUs (Decision making units). The efficiency tends to define that maximum output must be delivered from existing input or specific production with smallest input (Prasetyo, 2007). Output can be in the form of income or production when the inputs are expenses or raw material to generate output.

According to famous Coelli, et.al (2005), the efficiency can either be measured by input/cost oriented approach or the output oriented approach. According to input oriented approach, certain amount of input might be less proportionally to manufacture equal amount of production. It focuses on cost minimization by reducing the manufacturing costs. The output oriented approach give importance to the profit maximization, certain proportion of output might be increased keeping the inputs at the same level.

## **Previous Studies on the Efficiency of Insurance**

The competence measurement of financial division is one of the mainly fast rising literatures in the business market. Many studies have been particularly conducted to measure the efficiency of insurance sector by using the parametric and the non-parametric approaches. Stochastic Frontier Approach (SFE), the Distribution Free Approach (DFA) and the Thick Frontier Approach (TFA) are among the mainly famous approaches under parametric approach. Meanwhile, the most popular non-parametric approaches are the Data Envelopment Approach (DEA) and Free Disposable Hull (FDH) (Cummin, et.al., 1999; Cummins and Zi, 1998). Eling and Lunhan (2009) ninety six (96) studies is don on the efficiency estimation for the insurance industry. The results of the study concluded that DEA was the most often used method to measure the frontier efficiency study in insurance. Out of ninety five (95) studies DEA was used in fifty five (55) studies.

There are many studies measuring the efficiency of the insurance industry at a country and continent level. The study about the performance and efficiency of insurance industry in the US was made by Cummins et al. (1999), and Meador, et al. (2000). Fukayama (1997) analyzed the efficiency of the insurance industry in Japan, Italy and Spain. The result indicated that the growth of total factor productivity TFP in the Japanese life insurance industry was higher than that in the US life insurance companies (Fukuyama 1997). On the other hand, Runio-Misas and Cummins (2004) concluded that the cost efficiency of insurance companies in Spain was lower than that in U.S. Mansur and Radam (2000) used non-parametric Malmquist index approach to study the productivity and efficiency of 12 insurance companies in Malaysia over the period 1987-1997. The study found that both technical efficiency and technical progress contributed to the overall growth of productivity of the industry.

Barros et al. (2008) conducted studies to examine the technical efficiency of insurance firms in Nigeria. He used DEA approach and found that the efficiency level of most Nigerian firms declined during the course of 11 years, from 1994 to 2005. This decline was caused by inadequacies in the management, scale and technology.

Adu, et al. (2011) conducted study to measure the efficiency of insurance companies in Ghana during the period of 2006-2008. The results of DEA showed that the average score of efficiency in for life insurance was much higher than non-life insurance companies. Likewise, Cabanda and Abidin (2011) examined the relative efficiency of twenty three non insurance companies in Indonesia during the period 2005-2007. He also employed DEA and the results indicated that the size of a company is in direct proportion with the efficiency i.e. the larger company operates more efficiently then smaller firms. These studies indicated that both efficiency and productivity had improved with new products and technological changes.

Although, most of the studies were made to investigate the performance of insurance sector in either USA or other developed counties, however, in recent years, we find work on Asian market of insurance companies as well. Most of these works are centered upon conventional insurance but few studies focused on the efficiency of Takaful firms. Kader et al (2011) examined the cost efficiency of Takaful firms based at seventeen Islamic countries. The study suggests that average cost efficiency scores of Takaful firms can be compared to conventional insurers as having positive growth and profitability rate. The study further suggests that skilled and experienced Board of Directors can contribute positively to the efficiency of a company by allocating optimum resources.

Bacha, Ismail and Othman (2011) made a detailed study of the cost efficiency and investment performance of the Takaful industry and the conventional insurance industry over the

period of 2004- 2009. They used DEA to make inquiry about the performance of 18 firms. 7 of which were Takaful companies and 11 conventional insurance companies. The results of the study showed that the Takaful had lower score of efficiency (i.e. 64 percent) as compared to conventional insurance (i.e.87 percent). Secondly, the study suggests that Takaful companies should reduce management expenses and bring improvement by investing in healthy projects.

Meanwhile, Saad (2012) investigated the efficiency of conventional insurance companies and general Takaful over the period of 2007 to 2009. The study analyzed the data of 28 conventional and Takaful companies using DEA and found that the main sources of efficiency changes were both pure efficiency and scale efficiency. The study also suggests that conventional insurance firms are performing better as compared to Takaful firms. Secondly the Takaful insurers must grow the size of the company to optimal level which can result in the improvement of the efficiency score.

We find a growing literature on the topic of measuring efficiency of conventional insurance sector as well as on Takaful firms around the world; we do not find much work done on this topic, in Pakistan. Though, we find some works done in past on comparative analysis of efficiency of Islamic banks and conventional banks ( Khizer et al, 2011; Akhtar et al, 2011; Shah et al, 2012) but we find none on the topic of comparative study of efficiency of Takaful and conventional insurance. It will be informative and interesting to investigate and analyze the relationship between the productivity and efficiency of two oppositely moving ideas in the form of Islamic insurance (Takaful) and conventional insurance, having different attitude toward the risk protection.

### **Developed Hypothesis for Future Studies**

H<sub>1</sub>: Takaful insurance is much efficient than conventional insurance

H<sub>2</sub>: There are no technological difference between conventional insurance and takaful

### **Conclusion**

Insurance companies offer many services for the wellbeing of individuals and businesses like repaying loss to property, life or business etc. In simple words, insurance company encourages the individuals and entrepreneurs to go for high return activities which certainly possess a big risk. In the absence of such a service, most of the investors hesitate to undertake such business activities.

Takaful and conventional insurance use the same set up and technologies and there is no need to deploy latest technology or hire new human resource for takaful. But takful is more important as compared to conventional insurance.

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