



**UNIVERSITI PUTRA MALAYSIA**

***A CROSS-COUNTRY ANALYSIS ON THE EFFECT OF RELIGIOSITY ON  
TAKAFUL DEMAND***

**ABU SAAD MD MASNUN AL MAHI**

**GSM 2018 26**



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TAKAFUL DEMAND**

By

**ABU SAAD MD MASNUN AL MAHI**

**Thesis submitted to Putra Business School in Fulfillment of the Requirements  
for the Degree of Master of Science**

**June 2018**

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## DEDICATION

To

***My Late Father***

*Who formed the values of my life.*

*He guides me even when he is not beside me – my life-long philosopher.*

***My Mother***

*Who supports me in everything by sacrificing her entirety.*



Abstract of thesis presented to the Senate of Putra Business School in fulfilment of the requirement for the degree of Master of Science

**A CROSS-COUNTRY ANALYSIS ON THE EFFECT OF RELIGIOSITY ON TAKAFUL DEMAND**

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**ABU SAAD MD MASNUN AL MAHI**

**June 2018**

**Chairman : Ahmad Fahmi Sheikh Hassan, PhD**  
**Faculty : Putra Business School**

Islamic Insurance or takaful has emerged as a distinguishable segment of Islamic Financial Products (IFPs). Shariah compliance business operation of takaful companies provide Islamic alternative to those who seek financial protection in any adverse situation at the same time guide their financial activities by Islamic regulation. However, considering the lack of literature explaining the impact of religion on human behavior and its consequence in creating takaful demand, this study examine the potential relationship. To understand the precise effect of religion, a multidimensional variable religiosity is considered. This variable is defined as the combined measure of the effect of religion on human behavior which comprises of religious belief, affection and actions. Furthermore, the effect of each dimension on demand is analyzed separately to gain in depth understanding of the relationship dynamics. Empirically, the study uses data of 15 years from 17 mostly Muslim majority countries. In a cross-country setting and employing the static panel data model, the study finds significant impact of religion in creating takaful demand. The analysis reveals that the stronger the degree of religiosity, the higher will be the demand for takaful. Additionally, the behavioral dimension of religiosity come out as the most significant one among the three dimensions while tested in separate models. Besides, a comparative analysis between Middle East and North Africa (MENA) and non-MENA countries revealed significant differences in demand in the regions exists; though religiosity does not come out as an influential variable in creating such variance. The current research expands the religiosity study allowing for Islamic religiosity which is narrow in the existing research stream. Moreover, a cross-country analysis make the findings more robust and bring novelty in takaful research. Subsequently, the study findings contribute to stakeholders' decision making for better business growth taking into consideration the emotive aspect of the customers. Further, this helps the policy makers to stimulate the development of the takaful sector with prudent business guidelines.

Abstrak tesis yang dikemukakan kepada Senat Putra Business School sebagai memenuhi keperluan untuk ijazah Master Sains

**ANALISIS KESAN KEAGAMAAN TERHADAP PERMINTAAN TAKAFUL  
DALAM KALANGAN NEGARA-NEGARA**

Oleh

**ABU SAAD MD MASNUN AL MAHI**

**Jun 2018**

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Insurans yang berasaskan Muamalat Islam atau takaful telah mula berkembang sebagai satu elemen yang boleh dibezakan dalam Produk Kewangan Islam (IFPs). Sistem yang berlandaskan syariah oleh syarikat takaful telah memberikan alternatif berunsurkan Islam kepada pelanggan yang mencari perlindungan kewangan dalam keadaan yang sukar di samping melakukan aktiviti kewangan berteraskan peraturan Islam. Walau bagaimanapun, terdapat kekurangan maklumat yang menerangkan kesan pegangan agama terhadap tingkah laku manusia dan kesannya dalam mewujudkan permintaan takaful. Justeru itu, kajian ini dijalankan bagi mengenalpasti potensi yang berhubung kait dengan mempertimbangkan pembolehubah berbentuk multi dimensi bagi memahami kesan agama dengan lebih tepat. Pembolehubah ini merujuk kepada gabungan tindakan antara pengaruh agama terhadap perilaku manusia yang terdiri daripada kepercayaan agama, kasih sayang dan juga tindakan. Tambahan lagi, kesan setiap dimensi atas permintaan dianalisis secara berasingan bagi mendapatkan pemahaman yang lebih mendalam mengenai perhubungan dinamik. Secara empirikal, kajian ini menggunakan data sepanjang 15 tahun merangkumi 17 negara yang majoriti penduduknya adalah beragama Islam. Dalam konteks analisis persekitaran merentas desa dan menggunakan model data panel statik, kajian ini menemui impak besar agama dalam mewujudkan permintaan takaful. Analisis ini mendedahkan bahawa semakin tinggi tahap keagamaan, semakin tinggi permintaan takaful. Di samping itu, kajian juga menunjukkan dimensi tingkah laku berdasarkan religiositi adalah yang paling signifikan di antara ketiga-tiga dimensi yang diuji dalam model berasingan. Selain itu, analisis perbandingan antara negara-negara Timur Tengah dan Afrika Utara (MENA) dan negara-negara bukan MENA menunjukkan perbezaan yang ketara dalam permintaan takaful di rantau ini; walaupun faktor keagamaan tidak menyumbang kepada pembolehubah berpengaruh dalam mewujudkan kelainan seperti itu. Kajian semasa telah memperluaskan kajian keagamaan Islam yang terhad dalam aliran penyelidikan sedia ada. Di samping itu,

analisis merentasi negara membuat penemuan yang lebih kuat dan membawa kebaruan dalam penyelidikan takaful. Selanjutnya, Penemuan kajian dapat menyumbang kepada keputusan pihak berkepentingan ke arah pertumbuhan perniagaan yang lebih baik dengan mengambil kira aspek emosi pelanggan. Selanjutnya, dapatan kajian juga membantu para pembuat dasar untuk merangsang pembangunan sektor takaful dengan garis panduan perniagaan yang berhemat.



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I certify that a Thesis Examination Committee has met on 11 June 2018 to conduct the final examination of Abu Saad Md Masnun Al Mahi on his thesis entitled “A Cross-Country Analysis on the Effect of Religiosity on Takaful Demand” in accordance with the Universities and University College Act 1971 and the Constitution of the Universiti Putra Malaysia [P. U. (A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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## TABLE OF CONTENTS

	<b>Page</b>
<b>ABSTRACT</b>	i
<b>ABSTRAK</b>	ii
<b>ACKNOWLEDGEMENTS</b>	iv
<b>APPROVAL</b>	v
<b>DECLARATION</b>	vii
<b>LIST OF TABLES</b>	xi
<b>LIST OF FIGURES</b>	xii
<b>LIST OF ABBREVIATIONS</b>	xiii
<b>CHAPTER</b>	
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Background of the Study	1
1.2 Problem Statement	4
1.3 Research Objectives	6
1.4 Research Questions	6
1.5 Significance of the Study	7
1.6 Thesis Outline and Structure	8
<b>2 LITERATURE REVIEW</b>	<b>10</b>
2.1 Introduction	10
2.2 Theoretical Framework	10
2.2.1 The Theory of Planned Behavior (TPB)	10
2.2.2 Behavioral Finance	12
2.3 Overview of Conventional and Islamic Insurance	14
2.3.1 Conventional Insurance	14
2.3.2 Takaful (Islamic Insurance)	15
2.3.2a Wakalah Model	16
2.3.2b Mudharabah Model	18
2.3.2.c The Mixed Model	19
2.4 Conceptualizing and Measuring Religiosity	20
2.5 Religion and Religiosity in Business Research	22
2.5.1 Religiosity, Finance and Financial Decision Making	22
2.5.2 Religion, Religiosity and Demand Studies	24
2.6 Religiosity in Takaful and Hypotheses Specifications	27
2.7 Conceptual Framework	28

<b>3</b>	<b>DATA AND METHODOLOGY</b>	<b>30</b>
3.1	Introduction	30
3.2	Research Design	30
3.3	Research Method	31
3.4	Population of the Study	31
3.5	Sampling and Sample Selection	32
3.6	Data and Data Sources	33
3.7	Description of Variables	34
	3.7.1 Independent Variables	34
	3.7.2 Dependent Variable	36
	3.7.3 Control Variables	37
3.8	Regression Model	38
	3.8.1 Panel Data Model	38
	3.8.2 Model Specifications	42
<b>4</b>	<b>RESULTS AND DISCUSSION</b>	<b>44</b>
4.1	Introduction	44
4.2	Summary Statistics	44
4.3	Baseline Regression Results	46
	4.3.1 Religiosity and Takaful Demand	47
	4.3.2 Dimensions of Religiosity and Takaful Demand	52
4.4	Baseline Regression Results with Interaction Variables	55
4.5	A Comparison between MENA and Non-MENA Countries	60
<b>5</b>	<b>SUMMARY AND CONCLUSION</b>	<b>62</b>
5.1	Introduction	62
5.2	Major Findings of the Study	62
5.3	Research Implications	63
	5.3.1 Theoretical Implications	63
	5.3.2 Business and Policy Implications	64
5.4	Limitations of the Research	65
5.5	Future Study Recommendations	65
	<b>REFERENCES</b>	<b>67</b>
	<b>APPENDIX</b>	<b>76</b>
	<b>BIODATA OF STUDENT</b>	<b>77</b>
	<b>LIST OF PUBLICATIONS</b>	<b>78</b>

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
2.1 Approaches of Conceptualizing Religiosity over Time	21
2.2 Research Hypotheses and their Expected Outcomes	28
4.1 Descriptive Statistics	44
4.2 Correlation Matrix	46
4.3 Effect of Religiosity on Takaful Demand (Pooled OLS)	47
4.4 Effect of Religiosity on Takaful Demand	49
4.5 Effect of Cognitive Dimension of Religiosity on Takaful Demand	52
4.6 Effect of Affective Dimension of Religiosity on Takaful Demand	53
4.7 Effect of Behavioral Dimension of Religiosity on Takaful Demand	54
4.8 Effect of Religiosity on Takaful Demand (With Interaction Variable)	56
4.9 Effect of Cognitive Dimension of Religiosity on Takaful Demand (With Interaction Variable)	57
4.10 Effect of Affective Dimension of Religiosity on Takaful Demand (With Interaction Variable)	58
4.11 Effect of Behavioral Dimension of Religiosity on Takaful Demand (With Interaction Variable)	59
4.12 Effect of Religiosity on Takaful Demand in MENA and Non-MENA Countries	61

## LIST OF FIGURES

Figure	Page
1.1 Global Gross Takaful Contribution (2007-2015F)	1
1.2 Takaful Premium (Contribution) Growth Rate by Region	2
2.1 Theory of Planned Behavior (Ajzen, 1991)	11
2.2 Wakalah Model: Fee-Based Agency Contract	17
2.3 Mudarabah Model: Agency Contract	19
2.4 Effect of Religiosity on Takaful demand	29
3.1 Study variables and their expected signs	37



## LIST OF ABBREVIATIONS

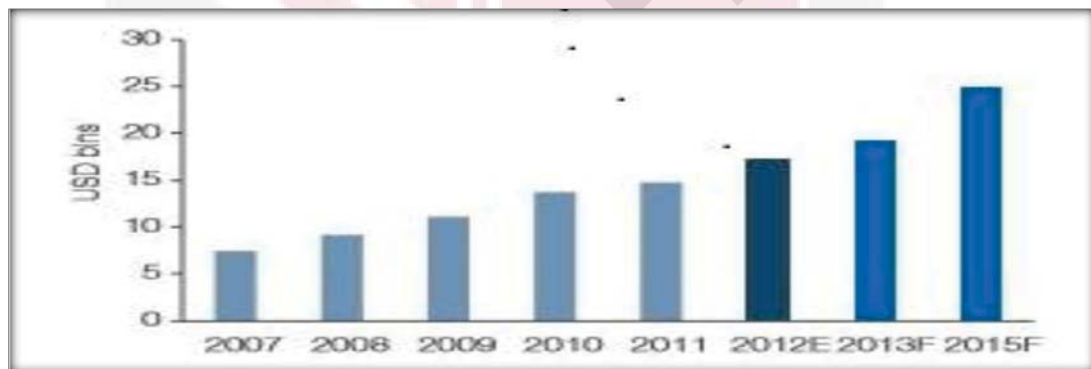
GDP	Gross Domestic Products
USD	United States Dollar
KFHR	Kuwait Finance House Research
CAGR	Compound annual growth rate
IFPs	Islamic Financial Products
TPB	Theory of Planned Behavior
CPI	Customer Price Index
FD	Financial Development
WVS	The World Value Survey
FEM	Fixed Effects Model
REM	Random Effects Model
MENA	Middle East and North Africa
VIF	Variance Inflation Factor
WRS	Wilcoxon Rank Sum

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the Study

Islamic finance is established as one of the emerging and fast growing segments of the global financial system in recent years. Takaful business is characterized as an essential part in the Islamic financial framework with a capacity to assemble long-term store of funds and in offering risk shield (Aris, 2004). Currently, 1.7 billion Muslim population around the world which stretches from Indonesia in the east to Turkey in the west with the Arabian Gulf states at their center and growing at a faster pace than the global population<sup>1</sup>. By spreading out fast, 56 mostly-Muslim majority countries of the world represent more than USD 6.7 trillion current GDP in 2013<sup>2</sup>. In alignment with the growth of Muslim population and development of Islamic Financial Products (IFPs), takaful has been developed as one of the inseparable portions of Islamic finance globally.



**Figure 1.1 : Global Gross Takaful Contribution (2007-2015F)**  
(Source: World Islamic Insurance Directory, Ernst & Young, KFHR)

Figure 1 shows the gross takaful contribution worldwide. A steady growth is noticeable and the total contribution figure had reached over USD 20 billion mark within near a decade (from 2007 to 2015F); however, the market remains unsaturated with huge growth potential for many (Cheikh, 2013).

After the introduction of takaful in Middle Eastern and South East Asian countries, the monopoly of conventional insurance companies in the market had ended. Over the last decade, takaful products have witnessed a significant growth in these regions. As

<sup>1</sup> State of Global Economy 2015 – 2016 Report by Thomson Reuters.

<sup>2</sup> State of Global Islamic Economy Report 2014-15 by Thomson Reuters.

illustrated in Figure 2 below, the growth rate of takaful contribution (e.g. premium) is the highest in Middle East. Even so the rate is mostly confined to Saudi Arabia (more than 20%) as the entire region is dominated by Muslim population. Again from the figure, the growth in premium is observed in two Muslim majority countries from South East Asia – Malaysia and Indonesia. Though Malaysia is dominating (growth rate between 5-10%) in this region, the growth rate is still lower compared to the Middle East region.



**Figure 1.2 : Takaful Premium (Contribution) Growth Rate by Region**  
(Source: Finance Forward World Takaful Report, 2016)

As demonstrated in Figure 2 above, there are still much potentials for takaful growth in other countries. If expanded further, the takaful market will be a major contributor of the global financial market. Until now, the takaful market is highly concerted in the GCC and South East Asia with Saudi Arabia and Malaysia dominating these markets<sup>3</sup>. Moreover, like other Islamic financial segments, i.e. Islamic banking, the takaful industry has not been able to accelerate at the same stride. The growth and financial performance of most takaful operators have not grown in tandem with the Sukuk (Islamic bonds) and Islamic banking markets. In addition, the assets of the life and general insurance funds mounted to a double-digit growth of 14 per cent whereas the takaful industry still lags behind to its conventional counterparts in terms of total insurance market penetration and share (Yazid, Arifin, Hussin, & Daud, 2012). Still untapped takaful markets exist in the Muslim majority countries (Ahmad, Masood, & Khan, 2010). During the period of 2013 - 2016, the global takaful market was estimated to grow by 14% annually<sup>4</sup>, however, the global takaful industry had recorded a growth in contributions of 12% by the year 2016<sup>5</sup>. Due to the sluggish rise of contribution and penetration, many do not have takaful protection yet (Rahman,

<sup>3</sup> Finance Forward World Takaful Report, 2016.

<sup>4</sup> Ernst & Young Global Takaful Insight, 2014.

<sup>5</sup> Middle East Insurance Review, 2017.

Yusof, & Bakar, 2008; Yazid et al., 2012) and this needs further analysis that may help to recover demand.

In connection with the culture within any society, certain values exist that help to guide how people behave. Culture is typically thought as a stimulus to economic outcomes by influencing individual attributes, for instance, trustworthiness, thrift, eagerness to work hard, and openness to outsiders (Barro & McCleary, 2003). Religion being a part of culture has significant incitement on one's values, habits and attitudes (Belzen, 1999). If Islam is taken as a case in point, many of such guidelines transmit to the treatment of money and wealth, moral conduct in commercial exchange. Religious commitment and religious centrism can play a major role in the formation of Muslims attitudes towards a religiously-compliant product or service (Siala, 2013). As (Wilson & Liu, 2011) argue, Muslim consumers look for high association in Islamic products due to their faith and have a preference to forgo their monetary satisfaction when it encounters with any of the demands of the Islamic law. The essential factor for the use of Islamic bank services is religion than profitability (Metawa & Almosawi, 1998). Similarly, Al-Sultan (1999) stresses that devotion to Islam is key stimulus for dealing with Islamic banks. In the same line of argument, Yap (2011) claims that the Islamic banking concept encompasses all of these themes to offer a framework in which religiosity and economic self-interest congregate.

Similarly, takaful also conforms to the Shariah principles which business models are comparable to Islamic banking. Nevertheless, there are large segments of the Muslim population who purchase the conventional insurance for risk protection instead of takaful. Arguably, there exists other potential factor(s) that induce people in choosing conventional insurance, but a Muslim is supposed to lead his/her life according to Islamic law in all the phases of life. Hence, the influence of religion on Muslims' behavior is not symmetric in nature. Secular Muslims as well as very pious Muslims can show the same degree of Islamic belief but may differ concerning other aspects of Muslim religiosity (El-Menouar, 2014). Considering this fact, the current study is interested to investigate the role of 'religiosity' instead of religion. As defined by Bergan & McConatha (2001) religiosity is a number of dimensions allied with religious beliefs and involvement; which clearly discern religion from religiosity and points to the prominence of studying religiosity in particular. Moreover, the underlying concern of takaful is to provide risk protection facilities to Muslims in a Shariah acquiescent manner. Though takaful markets are spreading throughout the world, there is still a lack of pace as shown in the statistics and literatures. So, what is the role of religion (specifically Islam) to influence people to take part in takaful products purchase? – this question needs to be answered. The incorporation of Shariah principles in the business operations that makes the takaful business distinct from the conventional equivalent. Hence, for the undeniable association with the Muslim faith and feats, a rigorous study based uniquely on the association between the religiosity and takaful demand is crucial. Such study is expected to contribute in enriching current domain of takaful literature.

## 1.2 Problem Statement

The amount of literature related to Islamic banking and other financial products is growing but there is a dearth of literature that is related to takaful studies. Different studies have attempted to identify the takaful demand or consumption determinants considering macroeconomic, demographic, social, cultural perspective. However, researchers paid more attention to identify macroeconomic effect on demand rather than studying cultural influence where the Muslim consumer behavior is largely a cultural construct (Wilson & Liu, 2011). Religion is a part of culture and expected to have a significant role in determining the consumption of financial product like takaful. Religious motives are the leading drivers for Muslims to choose products and services that adhere to Islamic notions and principles (Hong & Lee, 2014). However, there is a paucity of studies that had analyzed in depth the very role of religion from the takaful perspective. So, how religious persuasions affect consumers in their financial decision necessitates further theoretical and empirical research.

Takaful was first introduced in 1979 in Sudan and encouraged by the growing necessities of the Muslim consumers for insurance protection which conforms to the Islamic law. Takaful being an emerging IFP spreading out day by day throughout the world but the degree of increasing demand is dissimilar for different countries. There might be a number of reasons for which such development varies in pace, i.e. duration of takaful business inception in the respective country, the difference in demographic character, regulatory issues, market competition and so on. Nevertheless, till today the number of research to clarify the link between financial decisions making criteria and religion regarding IFP are not clear although religious principles are coherent determining factors behind the decision making. Additionally, considering religion at individual level the concept of religiosity gains more relevance as religiosity is defined as a person's level of devotion to a particular religion (Fam, Waller, & Erdogan, 2004). Whether a person should have insurance protection or not is typically an individual decision. In making such decision religion plays a vital role to influence choice. Such effect of religion is religiosity which is echoed through individual attitudes and behaviors (Sood & Nasu, 1995). Individuals with higher religiosity are less likely to make impulsive purchase decisions and have a higher concern for price and quality than individuals with less religiosity (Mokhlis, 2006). Therefore, religiosity, rather than religion, plays an overriding and significant role in attitude formation and is allied to questions around why people consume (Razzaque & Chaudhry, 2013). Particularly, Muslims' religiosity has an influential part in shaping their consumption behavior (Rehman & Shabbir, 2010; Soesilowati, 2010).

Yet, (Newaz, Fam, & Sharma, 2016) while studying the effect of religiosity in purchase intention of different IFPs did not find any direct significant relationship between religiosity and purchase intention of takaful products. One possible reason might be the measurement of religiosity itself. The study measured religiosity only based on one's intention which merely covers the cognitive aspect of religiosity; whereas the current research considers a multi-dimensional variable. Correspondingly, the influence of religiosity entirely from takaful demand point of



view has not been studied in prior literatures. It is worth noting that religiosity has been studied mostly in sociology, psychology and marketing studies using three distinctive dimensions of religiosity: cognitive (knowing), affective (feeling), and behavioral (doing) (Cornwall, Albrecht, Cunningham, & Pitcher, 1986; (Parboteeah, Hoegl, & Cullen, 2008). Cognitive dimension is more on a person's awareness about religion, that is, whether he/ she sees the world with religious conviction or not. Then again affective dimension is the emotional aspect of religion and comprehends outlooks toward religious beings, matters as well as institutions. To end with, the behavioral dimension is more to understand the religious activities of individuals. How religious feelings and cognitions transpire through the activities of a person is the matter of concern of this particular dimension.

Over time, how the spiritual and religious customs impact decision-making behavior has been ignored in the financial literature. The conventional theory of finance stresses importance on the fundamental variables like stock prices, profitability, and market volatility that affect financial decisions making. Behavioral finance considers the influence of psychology and emotion on investment choices; religion plays a decisive role in such aspect by influencing individuals' emotions and behavioral preferences.

Even the religiosity related studies have not tried to show the effect of religion on takaful in a cross country set up. Some recent studies report religiosity effect on earning management (Kanagaretnam, Lobo, & Wang, 2015), cost of debt (Chen, Huang, Lobo, & Wang, 2016) in the business research arena. So the analysis of religiosity in takaful perspective is important to understand the influence of religion on individual in financial decision making i.e. purchasing or not purchasing takaful. Simultaneously, for the adherence of takaful operation with religion (Shariah law) like other IFPs.

As takaful business is spreading across the globe, a comparative study in the cross country setting is expected to provide greater insights of this industry. Alike most of the studies related to Islamic finance takaful studies have confined generally in a single country set-up so far. As argued by (Gait & Worthington, 2008), most of the Islamic finance studies is in a single national setting and further international analyses are needed. In addition, studies on the effect(s) of religiosity in different areas of research mostly concentrate on Christianity at large and/or their study focus mainly on the Western countries. However, the Muslims' religious belief, its way of leading life, social and economic activities are distinct in comparison to other religions. Because Islam is a religion which is not limited to worshipping God rather needs to comply with the dutiful guidance in every aspect of life. Muslims have the obligation of not only following the norms of what is commonly available in the market (i.e. buying conventional insurance scheme) but they must make attempts to protect their religious duties, consequently, maintain their *akhirat* as well as their worldly living (Kamil & Nor, 2014).

At the same time, religiosity varies within the Muslim market thus Muslims' behavior and decisions making varies to different extents as well (Essoo & Dibb, 2004; Mokhlis, 2009). When it comes to the question of such effect of religion on a product like takaful where the main differentiating point is 'Shariah compliance' from its conventional counterpart, the study of individuals' religious piety and its influence gain greater research importance. Hence, Muslims' religiosity needs to be understood in a discrete and comparative manner to have a clear understanding of how it drives people's behavior, thus the intention to buy takaful products that could drive its demand, which is currently lacking.

### **1.3 Research Objectives**

This research aims to analyze how religiosity affect individuals' motivation to purchase takaful. As defined in literatures and used in earlier studies, this research is going to study the effect of different dimensions (which are cognitive, affective and behavioral) separately besides measuring the effect as a whole. In particular, the current study intends to explore how such dimensions play a role across the countries where takaful has its operation. The specific objectives of this study are as follows:

1. to investigate the effect of religiosity in creating takaful demand across the countries; and
2. to examine the effects of different dimensions of religiosity on takaful demand across the countries.

### **1.4 Research Questions**

To achieve the above objectives, the following research questions have been formulated:

1. what is the effect of religiosity on takaful demand in different countries?
2. is there a dimension of religiosity that has a greater impact on creating demand for takaful across the countries?

## 1.5 Significance of the Study

This study is expected to make the following contributions:

First, religiosity should be considered as a key country-level factor for being an essential source of social norms and values. Religiosity considers the individual aspect of religion and a country's population is the collection of all individuals. Hence, collectively religiosity being a country level factor affects a country's consumption level for takaful products thus stimulates its growth along with other factors like GDP, population, financial sector development, inflation and so on. The current study attempts to highlight how a country's religiosity can play a distinct and significant role in determining the people's participative behavior in takaful.

Second, most of the earlier literature had studied the demand perspective of takaful based on a specific country context. This study is keen to examine the influence of religiosity in particular across the countries to gain a wide-ranging insight; using an international sample to study takaful growth bears significance to national and global economies. Takaful companies are distinct from industrial firms, hence it is imperative to comprehend the role of religiosity specifically on takaful consumptions. This study expects to contribute in fulfilling the existing gap in the literature by taking into account specifically the individuals' religious behavior as explaining variables to clarify its specific influence on takaful demand across the countries.

Third, religiosity had been used in different disciplines to understand the structure of society, social construct as well as the role in shaping an individual behavior and attitudes in society. In most cases, the measured religion is Christianity and is mainly focused on Western societies. As Muslims' values, cultures and undertakings are different from others and are shaped by distinct religious faith accompanied by the requirement to accomplish those in every aspect of life; thus, only a multi-dimensional impact analysis of religion is expected to contribute to the existing knowledge by understanding Muslim religiosity. Specifically, from IFPs perspective where takaful is the ideal instrument to analyze. Moreover, the idea of analyzing the effect of each particular element of religiosity specified in the study is to understand which part has the greater impact in such financial decision making. Is it merely the religious cognition (cognitive dimension) or individuals' affection for the religion (affective dimension) or the observing of religious rituals part (behavioral dimension) in life or the collective influence? Therefore, the current study is expected to add a deeper understanding of the effect of religiosity in financial decision making and the choosing of takaful in particular.

Finally, as most of the potential takaful markets exist in Muslim majority countries, an analysis focusing on Islamic religiosity is expected to help the market players. Insightful understanding of the ambience of Muslims' need of takaful as an alternative risk management instrument to conventional insurance could drive business.



Additionally, the intended cross-country set up of the analysis is projected to comprehend dissimilarities of such religiosity effect in different countries and thus bears a greater managerial implication for the decision making to stimulate the demand of their products. Consistently, a country level analysis is expected to reveal the true impact of religiosity on takaful growth. The unique feature of takaful is the criterion that all investments and assets under management are invested in line with the principles of Islam and thus have to be wholly compliant with Shariah (Iqbal & Mirakhor, 2011). For that reason, people's religious values are a major criterion in selecting takaful over other alternatives. Thus, if the association of religiosity with takaful demand appears high but the existing takaful penetration and density found to be low, this study may help policy makers to re-assess the existing legal environment (i.e. Shariah framework) that could promote growth of that corresponding country.

## **1.6 Thesis Outline and Structure**

In accomplishing the study objectives established in Section 1.3, the thesis will be organized into a construction including five chapters. The organization of the chapters are as follows:

Chapter 1 is the introduction chapter. This chapter positions the general idea of the research by discussing the study background and the underlying problem of the research. Subsequently, the objectives and related research questions are specified. This chapter ends by postulating the potential contributions of the study.

Chapter 2, which is the theoretical framework and literature review chapter, starts with introducing the supportive theories of the research. In expanding the understanding of insurance, it presents a brief discussion on the development and operation of insurance. It also highlights the core concept and reviews the relevant contracts of the Islamic insurance or takaful, briefly setting out the general working mechanism of takaful to provide an idea of the connection between the theory of takaful and its real-world practice. Besides conferring the theoretical aspects, this chapter also discusses the religiosity studies in different disciplines emphasize primarily on business literatures which deals with the issue of religiosity. With an extensive review of literature on religion and religiosity in the context of consumer behavior, risk behavior, intention participation and demand study from economics, finance and other fields of research, this study tries to show the need of religiosity in takaful demand having identified the literature of religiosity and how it is operationalized in this study. Chapter 2 ends by specifying the research hypothesis which is to be tested as well as to clarify the conceptual framework of the current research.

Chapter 3 is the research methodology section. It outlines the research methodology adopted in this study. It also elucidates the research design, strategy, and methodology used in the study. The chapter details the research progressions in providing an understanding the course of answering the research questions to accomplish the study

objectives. It also defines the operational variables and specifies the econometric model used in the current research.

Chapter 4 reports descriptive statistics of the data as well as the panel estimation results by using the defined methods explained in Chapter 3. This chapter comprehensively discusses the results of the analyses of the study along with the implications of the findings. In addition, it confers the econometric issues that are encountered during the analyses and the solutions to validate the findings. The chapter ends with the comparative analysis regarding religiosity and takaful demand issues between MENA and non-MENA religions.

Finally, Chapter 5 offers the final understanding and comments resulting from this research by addressing the research findings and objectives framed from the problem statement and the results of the experiential models. Besides that, this chapter highlights the theoretical, practical and policy implications that are perceived from this research. Furthermore, it states the limitations of the study and provides further research direction to enrich the knowledge in this particular area of research.

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