

**THE MODERATING EFFECTS OF GOVERNMENT  
SUPPORT AND RELIGIOUS OBLIGATIONS ON THE  
RELATIONSHIP BETWEEN SERVICE QUALITY,  
KNOWLEDGE AND AWARENESS OF ISLAMIC  
BANKING SYSTEM AND THE INTENTION TO  
SUBSCRIBE THE SYSTEM IN LIBYA**

**KHAIRI MOHAMED OMAR**

**DOCTOR OF BUSINESS ADMINISTRATION  
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IN LIBYA**

**By**

**KHAIRI MOHAMED OMAR**

**A Dissertation Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
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## ABSTRACT

This study investigates the moderating effects of both the government support and religious obligations on the relationship of the service quality of CARTER'S model, knowledge and awareness of the Islamic banking system towards the intention to subscribe to the Islamic banking system in the Libyan banking sector. The study looks into the potential causes behind the delay in implementing the full-fledged Islamic banking system in Libya. The study reports the results of the surveys that were conducted among Libyan bank clients/customers. Using the primary data collection method, 384 questionnaires were distributed to the targeted respondents comprising Libyan Islamic banking subscribers and conventional banks from three main states in Libya. Only 226 (58.9 %) questionnaires were returned and analyzed using Structural Equation Modeling (SEM). The study proposed two direct relationships and two moderating effects in the structural model. The findings revealed that government support and religious obligations were significant predictors of behavioral intention to subscribe to the Islamic banking system where the significant influence of the overall service quality dimensions of the CARTER model and knowledge and awareness of Islamic banking in the Libyan context fund existed. The study supported the premises of the CARTER model confirming the importance of government support for any successful strategy implementation planning. These findings, therefore, strongly suggest that the CARTER model should be developed prior to any strategy implementation planning. The findings also indicated that it (CARTER model) is a valid model in predicting customer behavioral intention.

**Keywords:** intention, Islamic banking system, CARTER'S model, religious obligation, Libya.

## ABSTRAK

Kajian ini mengkaji kesan interaksi di antara sokongan kerajaan dan kewajipan agama ke atas hubungan antara kualiti perkhidmatan Model CARTER, pengetahuan dan kesedaran ke atas sistem perbankan Islam terhadap niat untuk memilih perbankan Islam di Libya. Selain itu, kajian ini turut melihat faktor yang berpotensi untuk menjadi penyebab kepada kelewatan pelaksanaan sistem perbankan Islam di Libya. Kajian ini melaporkan keputusan kaji selidik yang diambil daripada pelanggan-pelanggan bank di Libya. Dengan menggunakan data primer, sebanyak 384 borang kaji selidik telah diedarkan kepada responden yang terdiri daripada kalangan pelanggan bank Islam dan konvensional dari tiga negeri utama di Libya. Sebanyak 226 (58.9%) borang kaji selidik yang berjaya diperoleh dan kemudian dianalisis menggunakan Model Persamaan Struktural (SEM). Kajian ini mencadangkan dua kesan langsung dan dua kesan moderator dalam model berkenaan. Analisis kajian mendapati bahawa sokongan kerajaan dan kewajipan agama merupakan peramal yang signifikan terhadap tingkah laku niat pelanggan untuk menyertai sistem perbankan Islam. Tambahan pula, terdapat hubungan di antara keseluruhan dimensi kualiti perkhidmatan Model CARTER dan pengetahuan dan kesedaran ke atas sistem perbankan Islam terhadap niat untuk memilih perbankan Islam warga Libya. Kajian ini menyokong Model CARTER yang mengesahkan kepentingan sokongan kerajaan dalam memastikan perancangan pelaksanaan strategi yang berjaya. Oleh itu, dapatan kajian mencadangkan bahawa Model CARTER perlu dibangunkan sebelum membuat sebarang perancangan pelaksanaan strategi. Dapatan kajian ini juga mendapati bahawa Model CARTER adalah model yang sah dalam meramal niat tingkah laku pelanggan.

**Kata Kunci:** niat, sistem perbankan Islam, model CARTER, kewajipan agama, Libya.

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## LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted
CARTER	Compliance, Assurance, Reliability, Tangibility, Empathy and Responsiveness.
CBL	Central Bank of Libyan
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CR	Composite Reliability
DF	Degree of Freedom Ratio
EFA	Exploratory Factor Analysis
GOFI	Goodness of Fit Index
GS	Government Support
IAIB	International Association of Islamic Banks
IBS	Islamic Banking System
IFI	Islamic Financial Institutions
IFI	Incremental Fit Index
IMF	International Monetary Fund
INT	Intention to Subscribe the Islamic Banking System
KU	Knowledge and Awareness of the Islamic Banking System
LISREL	Linear Structural Relationships
MLE	Maximum Likelihood Estimation
PLS	Profit Loss Sharing
R2	R-squared values
RMSR	Root Mean Square Residual

RO	Religious Obligations
SCFS	Shariah Compliant Finance System
SEM	Structural Equation Modelling
SERVQUAL	Service Quality
SMC	Squared Multiple Correlation
SPSS	Statistical Package for the Social Sciences
SPV	Special Purpose Vehicle
TLI	Tucker-Lewis Index
VE	Variance Extracted
WTO	World Trade Organization

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the Study**

The Islamic Banking System (IBS) is a financial system which is governed by Islamic law (Shariah) principles, where the basic sources of Shariah are the Quran and the Sunna, which are followed by the consensus of the jurists and interpreters (scholars) of Islamic law. The central feature of the IBS is the prohibition in the Quran of the payment and receipt of interest usury (Riba). The strong disapproval of interest by Islam and the vital role of interest in modern commercial banking systems led Muslim thinkers to explore ways and means by which commercial banking could be organized on an interest-free basis.

Basically, unlike conventional finance system, IBS undertakes its operations with no paying either receiving any Riba “Interest”. However, the first developed of IBS was in the 1950s and lead to the establishment of the first generation of the Shariah compliant investment banks in Egypt. While, in the Malaysia case, it appeared to start in the early 1960s with what is called Tabung Haji (saving box to perform the Haji) (Abdullah, 2011; Marketplace, 2015; Nasser & Muhammed, 2013; Wikipedia, 2010). Whereas, Dubai Islamic Bank established in 1974 as the leading private interest free bank; and since then, the idea of the IBS has turned out to be widespread. According to the Banker website, (2010) the amount of the Shariah compliance finance system organization “Institutions/ banks” around the globe goes above 500.

Furthermore, the current global vicissitudes in the global economy, the revolutions in the information technology industry, as well as the globalization, causing in dramatic changes in world trade, placed pressures on businesses in general and banks/financial

institutes specifically and forced them to alter their strategies to respond to these developments. However, lately the World Trade Organization (WTO) has encouraged the countries that take on the agreement to open up their economies to all investors. The WTO organization agreement has widespread implications for the banking industry.

For that reason, under the WTO agreement, the Shariah compliant finance system “banks and financial institutions” found themselves in straight competition with the universally well-established conventional financial system “banks and institutions”, particularly since numerous of these conventional banks have realized that Islamic banking provides chances to tap into new markets. Therefore, it is not surprising, weird to see an amount of conventional banks such as Citibank, Barclays, HSBC, and so on, offering Shariah compliant products and services (Karbhari, Naser, & Shahin, 2004). In fact, the recent unprecedented achievements by the IBS have led the International Monetary Fund (IMF) and the World Bank to recognize Islamic financial products as valid means of financial mediation and have published studies and papers to this effect.

In the case of Libya, for hundreds of years Islam has been the official religion (Lapidus, 2002; Wikipedia, 2013). However, soon after taking office, the revolutionary government expressed a clear desire to exalt Islam and restore it to its proper central place. Several steps have been taken by the government to show itself as a devout Islamic government. During the 1970s, Islam in Libya played a major role in legitimizing spheres of political and social reform, but not in the realm of economics and finance. Moreover, during that time, the Libyan banking sector witnessed significant transformation, characterized for more than three decades by a massive state intervention in the commercial banking sector. This has led the sector to

unacceptable performance and to be less diverse in term of its banking services and products compared to other developing countries.

### **1.2 The Motivation of the Study**

In general, the motivation of this study stems from its originality and purpose which will shed light on the nature of the problems and challenges faced in building a good body of the Islamic finance system within Libyan financial institutions. Furthermore, the current researchers hoped to clear up as well the structures and principles of Islamic banking in order to help in explaining and introducing the Islamic finance industry in the mentioned Libya. However, the researcher believed that academics and researchers might benefit from this research since many aspects of the present Libyan Islamic finance have lack of analysis and discussions, also the study might contribute to the development and reform of the Libyan banking system as well as being used for comparative purposes and future studies. Therefore, the research is intended as a guide for any further attempts to introduce new banking services to the country.

However, it is worth mentioning that; the research analysis is purely academic and does not suggest or imply a certain path for the state and monetary authorities to follow. The research simply describes situations as they are and explains how they could appear in the event of Islamic banking establishing a presence. Moreover, there is indicators that Islamic banking is about to become a major independent presence within Libyan banking.

### **1.3 Problem Statement**

The banking sector always plays an important role in any emerging nation's economy through its intermediation between depositors and investors (Kumati, 2008). The

Libyan economic sector has witnessed an obvious development, especially in the banking industry; this banking industry has experienced a fundamental change which can be due to the governmental interventions, profitability and efficiency which were not among the top priorities (Development African Bank, 2009). According to Kumati (2008), this fundamental change has weakened a several unexpected aspects of the administration, which of course has led to a decline in the performance as well as the inefficiency of the sector.

Consequently, the country has set-up new policies in order to liberalize the banking sector and to improve the sector's performance. Eventually and as a consequence of these movements, private banks have been opened and many laws enacted to encourage foreign investors to take a part in the development of the banking sector. However, almost over decade of implementation of these policies, regulations and the services, and the products of this sector still very limited (Kumati, 2008; Development African Bank, 2009). Notwithstanding, the delayed of opening up different aspects of the banking industry (e.g. Islamic banking) has distracted a considerable section of Libyans who are led by according to the Islamic principles, which has resulted in financial exclusion.

However, Libyan citizens as Muslim whom led by Islamic law and principals have become dissatisfied with the conventional banking services and are looking for a banking system in accordance with Islamic doctrines and moral principles as part of their search for a new Islamic identity. As part of this identity, their saving habits are influenced by what they believe is prohibited interest (Kumati, 2008).

Therefore, as a consequence of financial exclusion, Libyan citizen are losing opportunities to use their savings in productive and profitable ways. They insist

keeping their savings in gold or any other safe place. Therefore, they lose the opportunity to stay in close contact with the banking system. Instead, they can be supportive of the national economy by contributing to the expansion of financial base of the country. Moreover, although the country has adopted an open-economy policy, many investors are still losing the chance to use Islamic banking industry (Kumati, 2008).

The undeniable fact that, throughout the last two decades the Shariah Compliant Finance System (SCFS) has been trying to extend its outreach to the level of conventional banking or more; where it's one of the most important aims for any emerging system (Sol, 2007). This emerged system connotes 10 to 15% per annum global rates; however, the unclear of SCFS framework was the main problem behind its low entry in the financial market (Sol, 2007). However, despite of the consistent growth SCFS a lot of supervisory authorities and finance practitioners still unfamiliar with this kind of system (Sol, 2007).

On the other hand, the choice of certain banking system such as IBS can be in many cases based in part on a religious motivation (Hegazy, 1995). Haron *et al.* (1994) likewise emphasized that, the differences in the patronage of Islamic and conventional bank in their study of Muslims as well as non-Muslims. Where, earlier studies conducted by Erol, El-Bdour (1989) and Erol *et al.* (1990), however, reported that religious motivation found to be not the primary reason for Muslims dealing with Islamic banks.

Gait and Worthington (2008) concluded that, the national government's willingness can play an important role in the growth of IBS worldwide. Yet, however, it cannot be known in particular how these supports can help out for the growth of the IBS (Gait &

Worthington, 2008). Moreover, frequent reference to the lack of understanding of IBS methods, particularly at the commercial level, suggests that this should be examined more carefully. As a matter of fact, understanding the IBS is an essential from a financial stability perspective (Sol, 2007).

However, several studies have shown that there is a significant difference between the two systems (Conventional and the IBS) in terms of profitability (Bakar, 2010; Hanif, 2011; Loghod, 2007), actually, the IBS is less exposed to liquidity risk whereas the conventional financial system used to be depend on external liabilities than the IBS (Loghod, 2007).

In Libya, according to the Central Bank of Libyan (CBL), in the year of 2005 and with almost of 155 branch, 5,934 employees/staff, and 149 agencies operating in all over the state, Al-Jumhouria bank which is the biggest Libyans' operating bank in the country; which 85% owned by the CBL, with biggest market share of almost 44.4 of the credits, 40.5 of the deposits; is the only financial institution started to offer and deal with IBS products, has gone for the first Libyan bank's experiment by opening the door as the first bank to deal with the IBS service in the country (Jumhouria, 2005).

However, according to the latest statistics record released by the Central Bank of Libya (2013), these annual statistics showed that, the number of dealers and subscribers to this kind of system is decreasing after it was quite in its highest stage. Although, the new experiment in this field and as the only conventional bank who involved in IBS services in offered the IBS Financial products (E.g. Mudarabah and Musharaka) through what is called IBS Financial window (Dual-System) the Shariah Compliant Financial institution is still in the growth and infancy stage and the IBS is facing

different challenges in the Libyan society such as socially, economically, fund management and regulations (Humera & Souissi, 2010).

The Chart below Figure 1.1 displays the decline of the number in thousands of IBS dealers and subscribers' according to the Al-Jumhouria bank annual report.

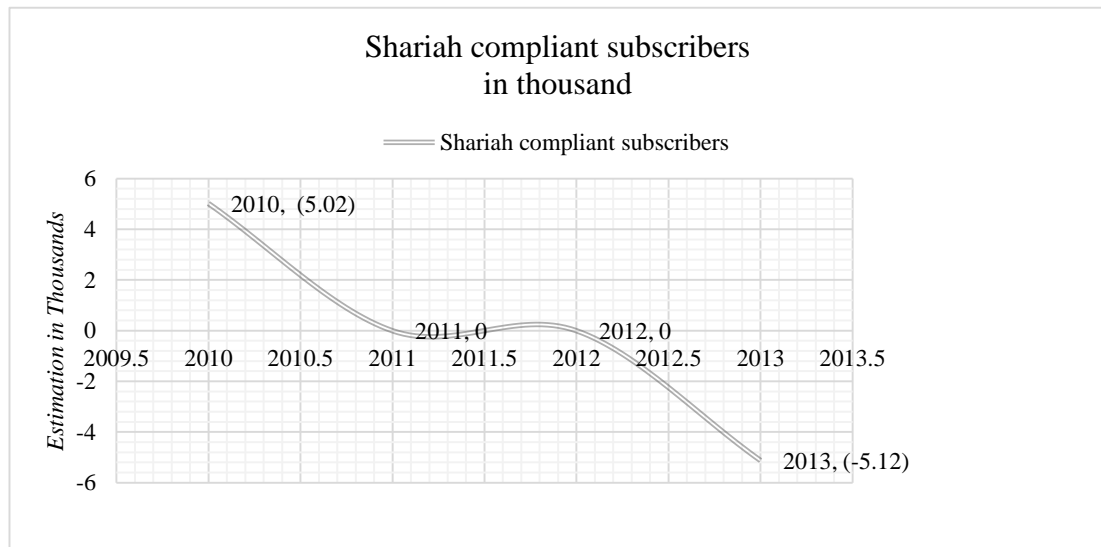


Figure 1.1

*The Subscribers Chart in Al-Jumhouria Bank*

Source: Al Jumhouria bank annual report (2013) and Banks, (2013).

Interestingly, IBS within the Middle East region are less efficient than their counterparts outside the region, which left the door open to study the cause and effect behind that. However, the market power and pure technical inefficiency that has largely resulted in the overall inefficiency of Islamic banks, does not significantly impact on efficiency in the Middle East, they're still ambiguity for that assumption whether the Islamic banking system from outside the Middle East region are relatively new and very much supported by their regulators (Tahir, Bakar, & Haron, 2011; Yudistira, 2004).

Indeed, there are very limited studies confined themselves to the conventional bank's customers' satisfaction and leave unanswered questions about the actual reason behind on-going practices and effective use and adopting of the IBS in the banking sector.

According to Gait *et al.*, (2009), they stated that, there is still need to investigate the relationship between service quality and customers' satisfaction practices in what is called developing countries.

In general, the relationship between service qualities (CARTER model), customer satisfactions and the behavioral intention to subscribe the Islamic banking System (INT) is inconclusive; in consequence studies provide mixed results with regard to this relationship. A study conducted by Gait *et al.*, (2008), resulted to that, around 72.3% of the Libyan business firms have the tendency to use the Islamic banking System (IBS) productions, regardless of informal practice of the Islamic banking System (IBS) institutions in the country.

However, according to Gait and Worthington (2008), religious factors can play the role of the encouraging elements for industrial and business organizations which is ordered to practice the IBS, also profitability as well as business support and unique services. Therefore, religious obligation (RO) will perhaps have an important part in individual determinations' regarding to their intention to subscribe an Islamic banking system (INT).

Besides to what has been mentioned above, there is a part of the research problem which is the mixed and inconsistency of findings regarding the service quality (CARTER Model) factors influencing customer satisfaction as well as customers' behavior intentions which have found to be a positive significant (Ranjbarian *et al.*, 2010). Whereas others displayed significantly negative, which were revealed by several researchers such as (Karim, 2012; Osman, Ali, Zainuddin, & Rashid, 2009; Ramdhani, Ramdhani, & Kurniati, 2011; Rashid & Hassan, 2009; Amin & Isa, 2008;



Estiri, Hosseini, Yazdani, & Nejad, 2011; Arasli, Katircioglu, & Mehtap-Smadi, 2005; Gan *et al.*, 2011).

Moreover, inconsistent findings were found regarding to service quality (CARTER Model), where some authors indicated a positive significant such as (Marie *et al.*, 2009; Morven *et al.*, 2007; Ramdhani *et al.*, 2011; Mangku Rasywal, 2009; Othman & Owen, 2001), while others reported significant negative relationship (Klein *et al.*, 1998). In addition, the findings regarding the mediating role of behavioral intention of the product showed inconsistencies; while some revealed a positive significant (Kaynak *et al.*, 2000), others stated that intentions found to be a weak predictor of behavior (Marie *et al.*, 2009). Some other authors failed to test purchase intention as a mediating factor (Lee, *et al.*, 2011; Margaret & Thompson, 2000; Klein *et al.*, 1998).

Likewise, it's worthy to address the issue of the lack of studies regarding behavior intention to subscribe the Islamic banking system (Zolait *et al.*, 2009; Morven *et al.*, 2007). Moreover, there are still required for further theoretical and empirical research related to the degree of religious obligations affected on consumers' financial and economic decision making (Gait & Worthington, 2008).

However, trust, uncertainty in many aspects and the attitude in general are seems to be the main challenges' facing of adopting or developing of any new system in most of the organizations and countries facilities. Unfortunately, there have been limited studies related to this assumption, especially in the case of Libya.

This study is about to understand the issues of inconclusive and inconsistency of findings regarding the relationship between SERVQUAL and intention to subscribe Islamic Banking.

In relation to that, and in order to conclude the above arguments of the all mentioned problems, this current research attempts to check with these gaps by trying to answer the following questions;

#### **1.4 Research Questions**

In line with the background of the study and the statement of the problem which has mentioned the preceding section, the study was mainly designed to address the following major questions:

1. To what extent service quality (CARTER model) dimensions effect on the intention to subscribe the Islamic banking system (INT) within the Libyan banking Islamic sector?
2. What are the effects of knowledge and awareness about the Islamic banking system (KU) on the INT within the Libyan banking sector context?
3. Does government support (GS) moderate the relationship between service quality (CARTER model) dimensions' and the INT within the Libyan banking sector context?
4. Does government support (GS) moderate the relationship between the knowledge and awareness of Islamic banking system (KU) and the INT within the Libyan banking sector context?
5. Does religious obligation (RO) moderate the relationship between service quality (CARTER model) dimensions' and INT within the Libyan banking sector context?
6. Does religious obligation (RO) moderate the relationship between the knowledge and awareness of the Islamic banking system (KU) and INT within the Libyan banking sector context?

The findings will be gathered from the views of the bank subscribers/clients who has directly and indirectly involved in this process.

### **1.5 Research Objectives**

Driving from the aforementioned research question formulation, this study was devoted to achieve the following research objectives:

1. To determine the relationship of SERVQUAL (CARTER) Model towards INT within the Libyan banking sector context.
2. To determine the effects of the knowledge and awareness about Islamic banking system (KU) on INT within the Libyan banking sector context.
3. To investigate whether a government support (GS) moderate the relationship between service quality (CARTER model) dimensions' and INT within the Libyan banking sector context.
4. To examine whether a government support (GS) moderates the relationship between the knowledge and awareness about Islamic banking system (KU) and INT within the Libyan banking sector context.
5. To investigate whether a religious obligation (RO) moderate the relationship between service quality (CARTER model) dimensions' and INT within the Libyan banking sector context.
6. To examine whether a religious obligation (RO) moderates the relationship on between the knowledge and awareness of the Islamic banking system and INT within the Libyan banking sector context.

## **1.6 Scope of the Study**

The research objectives and questions in this study were examined based on the data collected from Libyan banking sector industry. Based on that, the study was limited to the mentioned data gathered from several banks' subscribers'/clients' in the state.

However, according to the Central Bank of Libya (CBL), the Libyan banking system consists of the Central Bank of Libya and fourteen (14) commercial and two (2) agricultural bank; which can be classed as: fourteen are public banks, two are private banks, operators within almost 62 branches in all over the country.

Although the current research carried out in the Libyan context, its implication is significant and of potential value to/or for any other context since it investigates the business process and human interaction factors. As a matter of fact, this study has employed the quantitative research design in which the questionnaire survey was the main tool for the data collection. The data were collected through self-administration approach putting in mind the bank branches as the unit of analysis.

However, the study model was developed consistent with the relevant literature and based on several segregations of scholars. Nevertheless, the coming chapters (three and four), address in details the research framework and the hypothesis development process.

## **1.7 The Significance and Contributions of the Study**

The significance of the study comes from its originality and major purpose, where its first of its kind piece of research at this level of academic research in Libyan aspect with the Islamic banking system and banking sector in both sides theoretical and practical level, however, the expectations of this current research is to shed lights on

the nature and structure as well as the principles of IBS to help in explaining the target sector in Libya.

The current research hoped to enable policy and strategic plan makers as well as academic researchers to benefit from its findings, since many aspects of the present Libyan banking sector has not been previously analyzed and discussed. The current research is trying to make a clear path for any further attempt to introduce new banking services to Libya.

The focus of this study is to investigate the factors affecting and facing practice the IBS in Libya. The findings of this study are vital for the local industrial sector, government, the general public and the academia. However, this study is among the first empirical studies on the problems, challenges and difficulties facing practice Shariah compliant financial system in general and the IBS in particular within Libya financial sectors, which used advanced quantitative methods and technique such as Structural Equation Modeling (SEM) for its analysis in Libya. Specific contributions to each sector are discussed below:

### **1.8 Academic Contributions/Theoretical Significance**

The findings hoped to increase of the number of empirical findings on Islamic banking system “products and services” studies in order to suggest that service quality (CARTER model) would enrich the conceptualization of INT and its relationships in the Libyan context.

Moreover, the findings hoped to impact the antecedent of customers’ intentions’ to subscribe the Islamic banking system who would deal with this kind of products and increase the empirical literature in accounting, banking and related disciplines. The

direction of the relationship in this study verifies the theoretical inconsistency that exists in the previous literature.

However, this empirical research is the first of its kind conducted in Libya, as none of the researchers have conducted a research in this direction. Therefore, this research will surely increase the number of Libyan empirical researches in the Shariah Compliant Financial transactions System and Islamic banking products industry.

### **1.9 Contribution to the Industry Sector**

Policy and decision makers should benefit by gaining new insights into adapting the IBS productions factors that are obvious to the Shariah Financial products, consumer and controlling the chain of the IBS and banks in Libya. This is relevant to new Shariah compliant finance system within Libyan banks in attracting consumers to patronize products based on service quality, religious obligation and government support.

In regard to the industry, this study is a guide to attracting a lot of customers and making them switch from conventional bank products to the IBS products. It helps to achieve high performance and development of the IBS industry. In addition, new marketing strategies should be implemented based on the findings in ensuring quality and trust of consumers for the dealing with/of the Islamic banking system productions of Islamic banks and institutions. Also, the findings about the behavioral intention to subscribe to the Islamic banking system and service quality dimensions (CARTER model) would give new impetus for improvement in these areas of Islamic banking industry.

### **1.10 New Contribution to Knowledge**

This empirical study is the first of its kind to be conducted in Libya as none of the researchers have conducted such a study in this direction.

The study focuses on the banks sector customers/clients' whom whether or not have an account or deal with those banks which is based on Shariah compliance financial system either full-fledged or dual-system banking; and the factors which may effect of full-fledged adoption of such system (E.g. Service quality dimensions, behavioral intention to subscribe the system and so on).

The knowledge and awareness on Islamic banking system (KU), government support (GS), religious obligation (RO) together with the behavioral intention to subscribe IBS (INT) is included in the research as new variables to the model of the IBS. However, yet a few previous studies have utilized the implications of IBS services and production in Libya.

Finally, methodologically, using the quantitative approach in the study can enhance the ability to generalize its results (Angell & Townsend, 2011; Clark, Gutmann, & Hanson, 2007; Creswell, 2008; Fieri, 2011; Johnson & Onwuegbuzie, 2009; Zawawi, 2001). Consequently, this research tried to benefit the government as well as the private sector financial corporations' performance field by providing empirical evidence about the relationship between IBS practices, and competitiveness of corporations private and public in adopting of fully-fledged of the IBS within Libyan context.

Thus, the study tried to extend the knowledge about such relationships in Middle Eastern countries generally and in Libya specifically. Furthermore, the quantitative methodology used in this study serves as the basis for comparison with other countries

and as well with those countries which has not yet started dealing with this mentioned system, which in turn, can enhance the construction validity of the previous studies conducted in different countries.

### **1.11 Definition of Key Terms**

The following sections present the operational definition of the key elements that have been used in the research:

#### **1.12 The Intention to Subscribe the Islamic Banking System (IBS)**

Essentially, the literature has shown more than a few definition of the behavior intention of human. For the purpose of this study, the Swan and Trawick (1981) definition is used where they stated that, behavior intention is an individual's planned of future behavior. However, in this study behavior intention to subscribe the Islamic Banking System refers to the level of behavior intention of Libyan citizen to subscribe the Islamic banking system in Libyan banking sector. This depicts what consumers think about whether or not they will subscribe or not subscribe Islamic banking system. It is an individual's readiness and willingness to subscribe to the Shariah compliant financial system. Besides, behavior intention can also be explained as how likely will the individual intentions' of dealing with IBS products' or the inclination of the individual to use or deal with a certain product.

#### **1.13 Service Quality (CARTER'S Six Dimensions)**

In the literature of service quality studies, there are a number of definitions of service quality (see, for instance, Othman & Owen, 2001; Glaveli, Petridou, Liassides, and Spathis, 2006; A. Parasuraman, Valarie A. Zeithaml, 1988; Ramdhani, Ramdhani, & Kurniati, 2011). Service quality refers to meeting the customer expectations and



demands whether it is a service or a product. However, according to Othman and Owen (2001) after adding new dimension to the SERVQUAL five dimensions theory namely compliance. Othman and Owen (2001) defined compliance as the ability to meet the terms Shariah values and functioned by administrating the banking and economic principles and values of Shariah law. In another word, it is the ability to accomplish with Shariah law, and function under the principles of IBS and its roles of economic.

However, since meeting the customer expectations or demands is one constant component of the quality definitions, suitability to meet customer demands is a significant, if not the most important element of the concept of quality. Therefore, for the purpose of this study, the definition provided by Othman and Owen (2001) was considered.

#### **1.14 Knowledge and Awareness of the Islamic Banking System (KU)**

Awareness defined as a having or showing understanding, observation, knowledge or perception about a particular general situation or reality, where knowledge has been defined by Wirtz and Mattila (2003) as “it is the reality or condition of knowing something with familiarity gained through experience or education”. In more details, the awareness of something in particular refers to knowing that something exists, it it reflect the also the interesting in something in specific (Dictionaries, 2013). However, where knowledge is knowing that something in specific exists, or even understanding of a particular situation or a subject at the present time which supposed to be based on certain information or experience (Cambridge, 2013). However, awareness in general implies knowledge gained through one's own perceptions or by means of information”. Therefore, this study used the mentioned definition of knowledge and awareness of the Islamic banking system to study the relationship with behavior intention of

customers in Libyan banking context. Therefore, for the purpose of this study, the definition provided by Wirtz and Mattila (2003) was considered.

### **1.15 Religious Obligation (RO)**

Religious obligation is a very important factor that playing a major role in people behavior and their intentions'. However, Amin *et al.*, (2011) has defined religious obligation as; "the role of religion in affecting individual's choice of activities". In other words, it is these rules and circumstances which believers or people abide and stick with as part of their religion which at times can be an actions or even feelings i.e sympathetic. However, people in many cases are led by the religious obligation which is playing an important role in determining which products going to buy or which bank or services will be join with. Therefore, for the purpose of the present research Amin *et al.*, (2011) definitions' was considered.

### **1.16 Government Support (GS)**

Government support refers to "the supervision of the market as well as monitoring the regulatory barriers that are often invoked in order to justify government intervention in the provision of any new market or industry", which need to be identifying and address by the government support of its impediments to help the industry in order to complements of the risk management business activities with financial instruments can be cost-effective, such as insurance (Mahul & Stutley, 2010). Offering government's support to certain industry is part of the general policy of the government, that might look up for right market and regulatory inefficiencies, these all together are usually portion of broader goals. Triandis (1979) has defined the government support as facilitation of the condition which translates into how available the resources which are needed for the behavior are to be carried out. Although, the central bank of Libyan

has emphasized on usefulness of fully-fledged of the Islamic banking system implementation, this study attempted to look at the these potential roles and regulations which is represented in the government support as it been mentioned. Therefore, for the purpose of the study, the both mentioned definitions' was considered.

### **1.17 Organisation of the Dissertation:**

The first chapter of this study provides an introductory outline of the study. It shows the background, motivation of the research, problem statement, research questions, objectives, the significance, the research contribution in term of its academic contributions as well as the industrial contribution, and knowledge, and scope of the study. The next chapter two, it starts with the introduction representing the outline of the chapter then the Islamic finance system history, foundation of the Islamic finance system and the Islamic banking and its definition. The chapter however, addresses the Islamic banking history as well as its objectives, models, products and features.

The third chapter of the study presents the theoretical framework of the study and also contains the hypotheses development. The chapter contains the identification of the variables of the study through the review of related literature. This chapter states with operation definition of the key variables such as CARTER elements. Furthermore, the chapter discusses the underpinning theories of the study and how they link to the study. Reviewing of the previous studies related to the same concepts presented in the study to identify the shortcomings and gaps, which justify carrying out this study were discussed.

While the fourth chapter explained in details the research methodology adopted by the researcher in carrying out the study. The chapter provides the population, sampling method, questionnaire design, as well as the data analysis procedures and collection

methods, and the design of the study. The data analysis and results provided in chapter five. In conclusion, chapter six which provides the discussion of the findings of study, bringing along to light the research results, limitations, and recommendations for future studies.

## **CHAPTER TWO**

### **OVERVIEW OF ISLAMIC FINANCIAL INDUSTRY**

#### **2.1 Introduction**

This chapter aims to discuss and provides a comprehensive overview of the Islamic Financial system in general and Islamic Banking System (IBS) industry in particular which is pertaining to this study. The chapter starts with an overview of the Islamic financial system and its foundation, models and products, followed by an overview on IBS definition and history and IBS financial products; then overall brief background about Libya and its financial sector, the country economic's, nature of business and the Islamic banking system sector and finally concluded with the chapter summary.

#### **2.2 The History of Islamic Financial System (IFS)**

The subject matter of IFS first appears to be written on paper, it was common to practice the expressions “Islamic banks or banking”. At the present time, it has become more common to talk of Islamic banking system and financial institutions with reflect in part, the shift evident in western markets as well as Islamic ones. As a matter of fact, it turned away from what were conventional banking activities to be financing activities that occur earlier by investment firms as well as non-bank intermediaries.

However, since nearly thirty five years before, the time when IBS was not in practiced or relatively unknown, IBS at present has long-drawn-out to and turn out to be a unique and fast growing subsector of the global financial systems and capital markets. According to a survey conducted by Americans' Global Finance website (2013), there are well over 500 Shariah compliant financial organizations working in more than 150 nations comprising most of Muslim and scores of western nations as well as several figures of the Shariah compliant insurance (Takaful) companies which operating in

more than 22 countries, Shariah compliant investment houses, leasing companies, mutual funds and product trading companies (Global Finance, 2013).

On the other hand, recently report revealed that Islamic banking assets shows a growth at an average rate of 17% for the earlier years 2008 – 2012 (Ernst & Young, 2014). Interestingly, there are around 25 has been identified to be as the most rapid growth market countries which they predict will account for half of global GDP by 2020. However, among these countries 25 countries, ten countries have a high Muslim population, with estimated number of 38 millions of customers till the end of 2014 (Ernst & Young, 2014).

Furthermore, it is accepted that the largest Islamic fiscal organizations involved at a multilateral level. Those mentioned statistics has included the number of micro-Islamic monetary bodies for instance “the urban and rural cooperative credit societies, Islamic welfare societies and financial association operating at a homegrown level and dealing with rural units, macro business firms and individual households”(Hassan. & Lewis, 2007; Presley, 1990).

Although, there are number individuals whom are interested in the Islamic finance system and the question of how it works and differs from conventional finance system despite the expansion over the last three decades. As matter of fact, Islamic finance system still remains poorly understood in numerous of Muslim nations and this still to be a anonymous in much to the West (Hassan. & Lewis, 2007). Now, there has been a reasonable number of researches in the area and some of them are substantial, previous publications regarding to this subject in the past four decades (Hassan & Lewis, 2007). Nevertheless, following chart displays the percentages of the documentations types all

over the world in regard to Islamic finance' studies as cited from Scopus website, (2013).

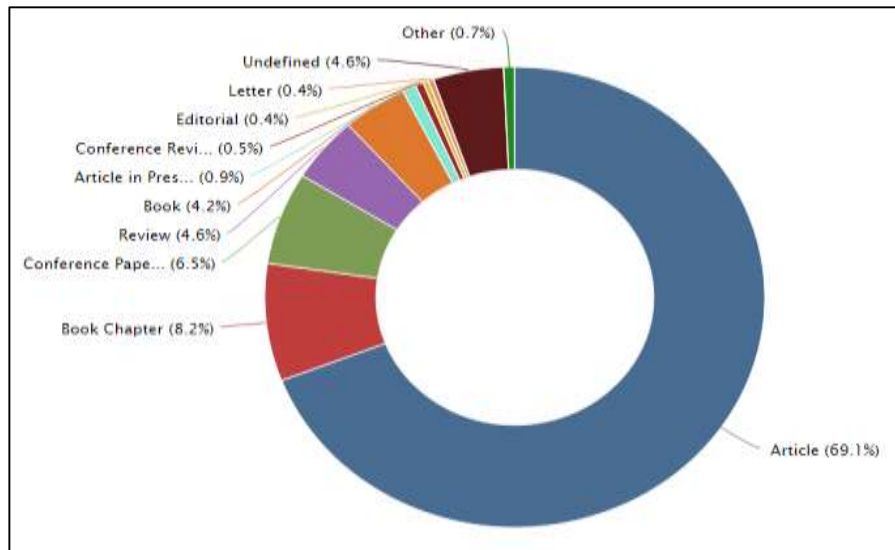


Figure 2.1  
*Islamic Finance' Studies Percentages of the Documentations by Types all over the World.*  
 Source: Analysis by Scopus.com (2015)

The following Figure 2.2 shows a recent comparison of the document counts for up to 15 countries regarding to the Islamic banking studies that has been conducted since 1983 - 2015:

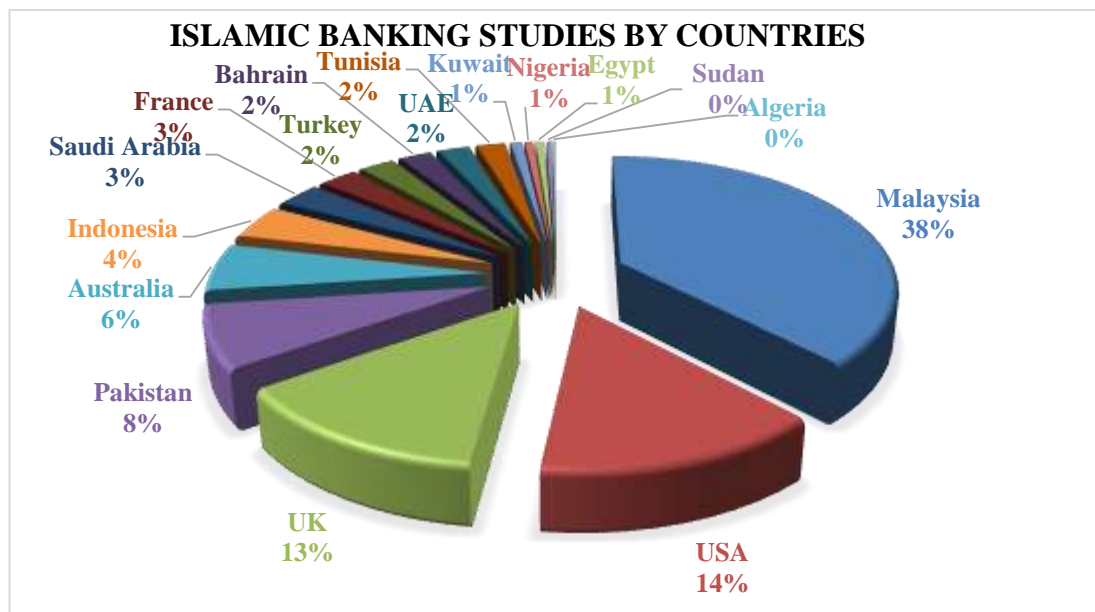


Figure 2.2  
*Recent Number of Documents and Study by Countries*  
 Sources: Analysis by Scopus.com (2015)

Unavoidably, still there are much gaps in the reporting of Islamic finance of system topic (These can be remarkably in terms of management liquidity, handling of good organization of operation, marketing, risk management, stock market, mutual funds, project finance, government support of financing, multilateral institutions and fiscal centers) in several Islamic countries and which is required to narrow down a number of related themes which pursued in wide-spread journals and articles in general for professional scholars regarding to the Islamic finance system area.

However, this study pursues to carry out the research agenda as well as the main concerns on the Shariah compliant finance system in Libya context before a wider audience. For this reason the researcher has reviewed several articles and related material to write a chapter on several parts of the Islamic finance system and trying to report these results regarding the existing status of play along with the related debates intricate in this process. Besides, this study aims to make available of a clear reachable sources of reference material on this existing practice and research in the mentioned country.

### **2.3 Foundations of Islamic Financial System**

The efficiency argument in favour of conventional interest based financial system intermediation has been considerably weakened by her experienced crises in the last few decades (Chapra, 2007). According to Stiglitz (2003), and as stated by Chapra (2007), there is not a particular geographical area or major country which has been spared the effect of these crises.

Hence there is an uneasy feeling that there is something not right with the global financial system as has stated by Stiglitz (2003, p.54). For that matter, this has concluded with a call for comprehensive improvement or even reform of the financial



system to help avoid the eruption of any new financial crises or, at least, minimize their frequency and severity. The needed reform has come to be labeled ‘the new architecture’.

As stated earlier, the Islamic Financial system in general and IBS particular exist to make available a better and variety of religiously suitable financial services to a better community. Over and above, unlike the conventional system or method, a special function of the Islamic financial system and the shariah compliant finance institutions, are anticipated to contribute richly to the accomplishment of the most important socio-economic objectives of Islam (Chapra, 2001, 1985).

However, the components of the economic welfare with complete employment as well as a high growth rate of the economy, socio-economic justice and an equitable income distribution and wealth, price stability and mobilization, and investment of savings for economic development to ensure a just profit-sharing return to all parties involved are considered as the most important components of these economic.

Probably, the religious dimensions must be introduced in the manner of clear goal in the future, which could be in the manner which the possibility to lead to religiously legitimate fiscal deals that has a value far beyond that of the mode of the financial process *per se*. Choudhury (2006), remarks that, “Islamic finance system is pronounced under “Islamization” list of items, but the system has no organised comprehensive vision of an interest free system, nor has it mobilized financial resources to enhance social well being that is supported by islamic economic development or ethics”.

However, Choudhury, (2006); Choudhury and Hoque (2004), stated that “these oversight are shared more essentially by Islamic economic thought as well as the social

thought that has produced no truly Quranic picture and has failed to comprehend the transformation of Islamic finance system within an equitable and participatory structure.

Nevertheless, this conclusion comes into being after social theory that has advanced overtime of Islam through to date. On the other hand, in line with the encouragements of rediscovering of the absolute fact of the unity of Allah “Tawhid” as articulated on the Quran and then the sayings' of prophet Muhammad’ “Sunnah”. Choudhury stated that, the social wellbeing function for Islamic finance system represented in protection of individual rights, social security and resource mobilization in keeping with the Islamic faith (Choudhury, 2006, Choudhury & Hoque 2004).

The Islamic banking system which is based on Islamic tenets is dedicated to the elimination of the payment and receipt of interest in all forms. However, it is this kind of taboo so as to makes Islamic financial system and institutions different in its principle from their conventional counterparts (Choudhury, 2006). As a matter of fact, the essential sources of Islam are Quran and the Sunna (teachings and traditions of Prophet Muhammad, Peace be upon him) as transmitted by the relatives and companions of that time.

Actually, these sources see or clarify interest as an act of corruption and injustice, hence it is totally inconsistent with Islamic ethics of justice and assets or property rights. Essentially, Islamic financial system derives its way on the base of “there is no place for the institution of riba “interest” in the Islamic teachings which has been stated very clearly in the Quran (Iqbal & Mirakhor, 2011).

"الَّذِينَ يَأْكُلُونَ الرِّبَا لَا يَقُومُونَ إِلَّا كَمَا يَقُومُ الَّذِي يَتَخَبَّطُهُ الشَّيْطَانُ مِنَ الْمَسِّ ذَلِكَ بِأَنَّهُمْ قَالُوا إِنَّمَا الْبَيْعُ مِثْلُ الرِّبَا وَاللَّهُ الْبَيْعَ وَحَرَّمَ الرِّبَا فَمَنْ جَاءَهُ مَوْعِظَةٌ مِنْ رَبِّهِ فَانْتَهَى فَلَهُ مَا سَلَفَ وَأَمْرُهُ إِلَى اللَّهِ وَمَنْ عَادَ فَأُولَئِكَ أَصْحَابُ النَّارِ هُمْ فِيهَا خَالِدُونَ"

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*“Those who eat Riba (usury) will not stand (on the Day of Resurrection) except like the standing of a person beaten by Shaitan (Satan) leading him to insanity”. That is because they say: “Trading is only like Riba (usury), “whereas Allah has permitted trading and forbidden Riba (usury). So whosoever receives an admonition from his Lord and stops eating Riba (usury) shall not be punished for the past; his case is for Allah (to judge); but whoever returns [to Riba (usury)], such are the dwellers of the Fire - they will abide therein”.*

*Al-Baqra Verse No:275*

For that matter, there were some scholars whom have set forward economical reasons to make clear why interest is forbidden in Islamic philosophy. According to Anwar Iqbal Qureshi (1946; 1991) and Farooq (2012), believed that it is not necessary to introduce the intellectual arguments in order to support the Quranic injunctions against Riba. Alternatively, it should concentrate however, not about riba“usury”, rather on its definition.

According to Algaoud and Lewis (2007), the distinguishing between riba that relates to loans and riba that involves trade, before going on to consider the divergent positions taken by traditionalists and modernists on the definition of Riba. However, they point out that Islamic critique is based on more than the prohibition on interest, even if we overlook the broader social charter recommended by Choudhury (2006), and others.

Additionally, the prohibition of riba in Islamic teachings, does not stop at the prohibition of Riba “usury” only, but there are other things which are considered to be prohibited as well, such as “Maysir” (game of chance and speculation) and “Gharar” (unreasonable uncertainty). This to say that, the Islamic teachings are seeking to ensure

that financial activities should be performed on the Halal based "permitted" and method, and have to be in line with the requirement to positively impact on the well being of society through the collection of Zakat (almsgiving) supervised by a special supervisory board (Hassan, & Lewis, 2007).

According to Choudhury (2006), the refusal of interest by Islam and rule Shariah bring up the question of how to replace the interest rate method or systems in an Islamic finance system and framework. With the assumption of prohibition of dealing with the interest "usury" either receive/paying which is not allowed at anyhow, according to Islamic perspective, what are the replacement instrument/method of the system or in general how this system going to work?.

As a matter of fact, it is obvious that riba interest in conventional fiscal transaction method of finance is in the common cases are to commence deals not on the basis of Profit and Loss Sharing (PLS) order, or even else similar acceptable means of financing. According to Gafoor (1995) as stated by Hassan, and Lewis, (2007) said the concept of PLS is to be of recent origin:

The earliest references on reorganization of banking on the framework of PLS rather than interest are found by several authors lately decades. They have all come to one conclusion and acknowledged the required for commercial banks and the evil of interest in that enterprise, and have proposed a banking system based on the concept of Mudarabha profit and loss sharing.

However, the prohibition of the interest "usury" matter was envisaged by the Islamic principals since about 1400 years ago when Islamic law "Shariah" stated that there shouldn't be any pre-agreed rates of interest on loans.

According to Uzair (1978), noted that the Islamic philosophy emphasizes agreed ratios of profit sharing as preference against fixed predetermined percentage rates on loans. Instead, Halal transactions should be on the bases of profit and loss sharing (Shahid & Siddiqui, 2001). However, within the context of Islamic Shariah law, partnership and entirely forms of businesses are organized first and foremost for a single objective: PLS arrangements should be between two parties, which have to be clear joint and participation. Hence, PLS is a substitute for interest "Usury" as a method of resource allocation (Choudhury, 2006). Although, there are a large number of different transactions in Islamic financial system, some of these transactions are considered as a major heart of IFS transaction.

These include equity participation (Musharaka), trustee finance (Mudaraba) and "mark-up" methods. Some of these PLS transactions like Musharaka and Mudaraba roughly return to pre-dates the genesis of Islam. Figure 2.3 illustrates the evolution of institutional framework throughout the years start from 1963 end with the estimated year of 2016.

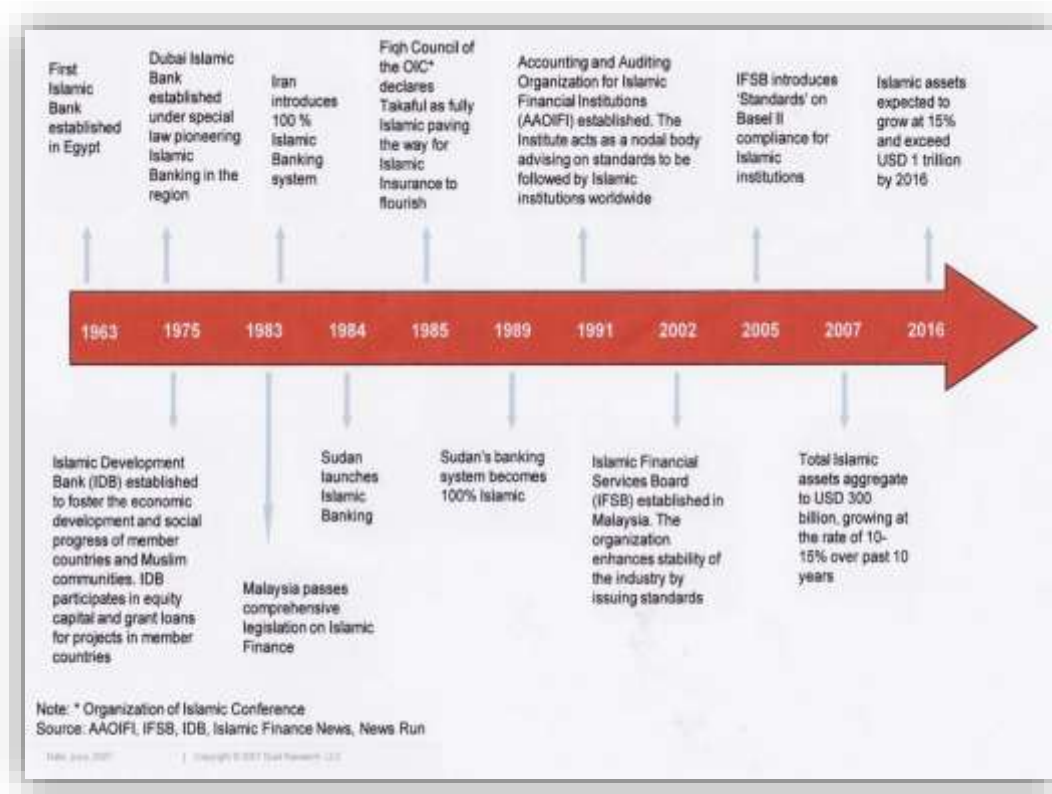


Figure 2.3  
*Evolution of Institutional Framework*  
Source: Borcinova, (2012)

Figure 2.4 illustrates IBS growth and histories throughout the years since 1963 – 2013 as reported by Fortune, (2013).



Figure 2.4  
*The Islamic Financial System History*  
Source: Fortune, (2013)

However, as it shows in the below Figure 2.5 the Islamic finance system has a strong footprint in the South-Eastern Asian regions, where Middle East countries comes in a second area:

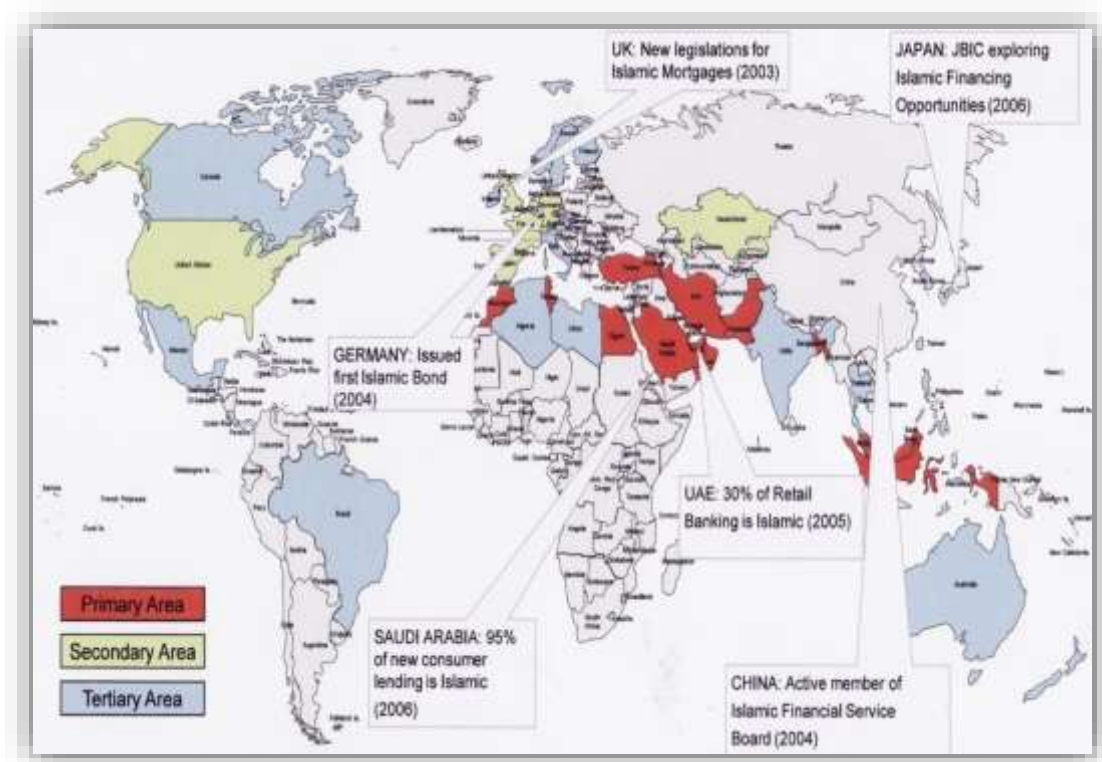


Figure 2.5  
*The Islamic Banking System Growth in the World Wide*

## 2.4 Islamic Banking System (IBS)

This section, review of the Islamic banking system by providing a snapshot of its history and the definition, the pros and cons, objectives, products of the Islamic finance system over the conventional system.

### 2.4.1 Definition of Islamic Banking

There are several definitions that have been set to define and explain the nature of the IBS. However, all of these definitions agreed on the main objective of the IBS which explains the real function and definition of the IBS. In general, the IBS is banking activity which is depends on the values and philosophies of Shariah and its practical

application through the development of Islamic economics (Khan, 2014). In actual fact, according to the Muslims' legislation (The Quran), it is prohibited for Muslims to deal with interest (Riba) at any level or business transaction, therefore Muslims people will not be able to deal with these banks that conducts business depends or deals with interest (Riba), (conventional banks). Therefore and to solve this matter, the Islamic financial system have introduced an alternatives and better way of financial service which have been developed by the Islamic financial institutions as a range of halal (non-interest base) financing instruments that in line with Shariah ruling (Zurbruegg, 2007).

#### **2.4.2 Islamic Banking System (IBS) History**

The history of IBS cannot be denied, since almost a thousand's four hundred years back; the Islamic financial system was established his first roots in the city of Medina. Dealt with many of the research the financial situation in the State of the Prophet, "peace be upon him" to find out whether the emergence of money has in the House that era. In addition to having many conversations confirm that the Prophet, "peace be upon him" lived a life of poverty and asceticism, there is an Islamic sources confirm that the house there is no money, but in the era of Caliph Omar Abn Al-Khattab (Alhlapa, 2013). The Islamic finance system is a viable model and competitive financial intermediation in both Muslim countries as well as Non Muslim countries across the globe. It has spread increasingly and significantly across segments of global financial market over time and has offered a widespread variety of fiscal services as well as the financial products.

These services and products have begun with relatively small level ago its beginning as a new vision of Islamic financial and banking system in the mid-1970s, but rapidly expanded and developed in the few previous decades. It is in fact one of the fastest



growing industry, for it has recorded annual growth rates of double-digit for almost 30 years (Al-omar & Iqbal, 2011; Macmillan, 2006; Molyneux, 2005). The general council of banks and Islamic financial institutions stated that, approximately more than 283 fiscal organizations are functioning consistent with Sharia law principles “full-fledged of Islamic financial system” in 38 countries by managing 250 of the billion US dollars in the world. However, these statistics are excluded the dual-window Islamic banking and conventional operations that works along with conventional banks “dual-system”, it is estimated by the (CIBAFI) of managing approximately 200,000,000,00 billion U.S. dollars (Oseni, 2013). Figure 2.6 shows the Islamic banking Products through time by region.

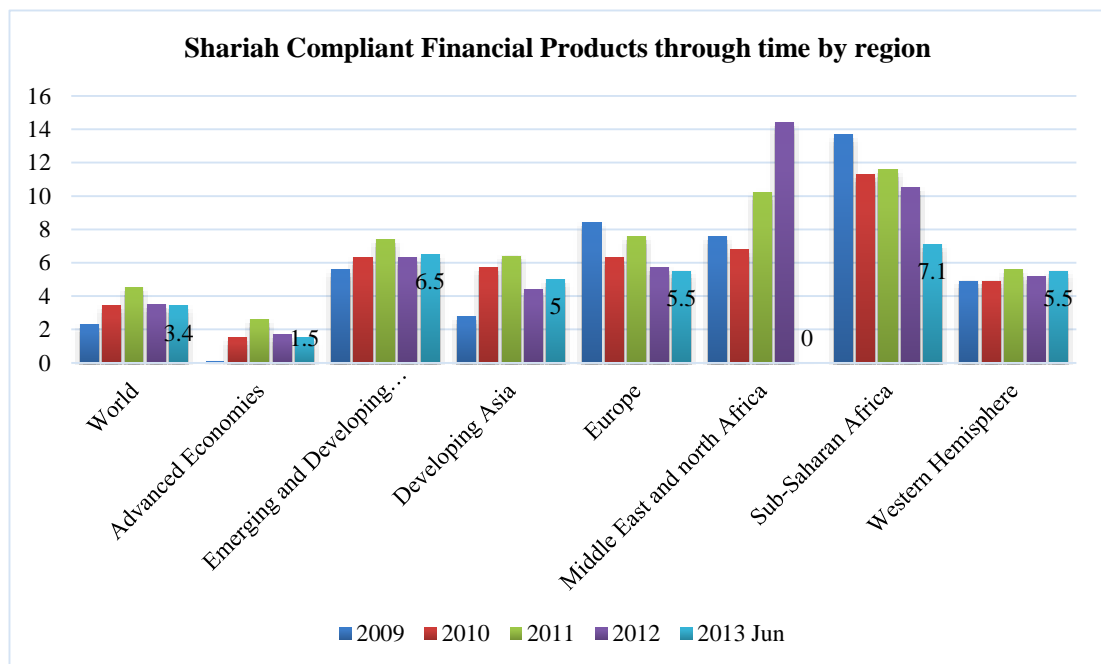


Figure 2.6  
Islamic Banking Products through Time by Region 2009 - 2013

However, the Islamic finance system prevalent is based on the prohibition of interest “riba”, it’s not the only uniqueness, but there are some other salient features which constitute the structure of the framework of the Islamic finance system and Islamic banking in particular. That prohibition of interest and other features are the essentials of the Islamic finance system which are, however, the rules and injunctions of Islamic

Shariah and they constitute a wider system and a comprehensive way of life based on the Islamic ideology.

It is understood that, the concept of Islamic finance system might be relatively new in terms of practicing; this concept was realized in practical terms and before that no such interest free banking system was prevalent in 30 the capital markets of the world, where in almost four decades ago was not well known. However, interestingly the concept of the illegitimate of dealing with interest is not a new phenomenon as it goes back to several centuries in Islamic world history. According to Banker website (2010), managing liquidity has been one of the challenges faced by the Islamic finance industry. Throughout the past five years, a number of proposals have been advanced to address the problem of a lack of instruments available to Shariah compliant institutions to manage liquidity effectively (The Banker Website, 2010).

At the end of 2010, the government of Pakistan has introduced an Islamic interbank money market called (Interbank Musharakah and Interbank Wakalah) and a Shariah compliant Islamic interbank offer rate, to enable Islamic banks to lend excess funds to each other. In October 2010, the IFSB signed a memorandum of participation to establish the International Islamic Liquidity Management Corporation to facilitate more comprehensive liquidity management among institutions operating internationally. Nevertheless, the 8.85% asset growth of Islamic finance in 2010 appears to be very weak. However, contrasted against the global banking industry, this modest growth is respectable (Bankerwebsite, 2010).

Several key challenges such as SME financing and increasing the diversity of the Shariah compliant product portfolio are on the horizon for “2010” as Islamic finance follows the recovery of global markets. Building the brands of Shariah compliant

finance and ethical banking will demand that institutions reposition their product portfolios with their target market segments to include both Muslim and non-Muslim customers. Anyway there are many lessons can be learned from the global financial crisis for both conventional and Islamic financial institutions and systems, one of which is that today's customer/investor perception is reality in terms of a bank's future performance (TheBankerwebsite, 2010).

#### 2.4.2.1 Why IBS not the Conventional Financial System

The below Table 2.1, summarize the pros and cons of the IBS as well as the conventional:

Table 2.1

*Pros and Cons of the Both System*

Features	Islamic IBS	Conventional
Guarantee of the capital value of:	Yes	Yes
Demand deposits	No	Yes
Investment deposits		
Rate of Return on deposits	Uncertain, not guarantee for investment deposits. Demand deposits are never remunerated	Certain and guarantee
Mechanism to regulate the final return on deposits	Depending on bank performance/profit from investment	Irrespective of bank performance/profit from investment
Profit/loss PLS principal applies	Yes	No
Use of; Islamic mode of finance: PLS and non-PLS modes	Yes	Non-applicable
Use of discretion by banks with regard to collateral	Generally not allowed to reduce credit risk in PLS modes. By way of exception, may be allowed to lessen the moral hazard in PLS modes. Allowed in non-PLS modes.	Yes, always

Source: Sundararajan and Errico (2002)

However, the following section explained in details the main objectives of Islamic Banking System.

### 2.4.3 The Objectives of Islamic Banking System

For a better understanding of the IBS in its entirety, there would be needed to understand fully its philosophy as well as objectives. As a matter of fact, it is laying on the Islamic law based, where its structure is Sharia law compliant oriented, this system, therefore, the IBS philosophy is expected to be led by the Shariah compliant business structure and consistent with the Islamic philosophy and precepts. According to Haron (1996; 2004), there are two reasons or philosophies behind the establishment of any Islamic finance system or organization.

- ✓ *First*, “either will use the philosophies of the Islamic banking system by the management or policy-makers on the banks during the drafting of the goals and policies of companies or”.
- ✓ *Second*, “these philosophies are as indicators of whether a particular Islamic bank adhering to the truly Shariah law principles and Islamic precepts.

Fundamentally, it can be understood that, the philosophy of Islamic banking systems in the context of its entirety objectives that stated in its economic system which is compatible with Islamic law. Several of recognized economists and researchers such as (Chapra, 2001, 2009a, 2008b; Khan, 1991; Presley, 1990; Soros, 2005; Khurshid Ahmed, 2000; Shahid & Siddiqui, 2001; Naqvi, 2003) they emphasized that; IBS is as subsidiary organ of the full-scale Islamic economic system that struggle and propagates for a just, fair and neutral society as intended regarding to the overall Shariah objectives.

Accordingly, those several prohibitions such as (Interest on money lending” usury”, gambling, excessive risks, and so on.) advocates to provide an equal opportunity to oversee the interests and benefits of all parties involved in market transactions and

promoting social harmony (Ahmad, Rahim, & Rahman, 2012; Chapra, 2007, 2009; Naqvi, 2003; Shahid & Siddiqui, 2001), and these can be found easily/clearly in the main source of the system - the Quran:

“ يَا أَيُّهَا الَّذِينَ آمَنُوا لَا تَأْكُلُوا أَمْوَالِكُمْ بَيْنَكُمْ بِالْبَاطِلِ إِلَّا أَنْ تَكُونَ تِجَارَةً عَنْ تَرَاضٍ مِنْكُمْ وَلَا تَقْتُلُوا  
 أَنْفُسَكُمْ إِنَّ اللَّهَ كَانَ بِكُمْ رَحِيمًا  
 النساء (29)

*“O ye believes, do not eat up your property among yourselves unjustly except it be a trade compromise, and do not kill yourselves, Allah is Merciful to you”*

*Alnisaa verse “29”*

“ وَلَا تَأْكُلُوا أَمْوَالِكُمْ بَيْنَكُمْ بِالْبَاطِلِ وَتُدْنُوا بِهَا إِلَى الْحُكَّامِ لِتَأْكُلُوا فَرِيقًا مِنْ أَمْوَالِ النَّاسِ بِالْإِثْمِ وَأَنْتُمْ  
 تَعْلَمُونَ  
 البقره (188)

*“Do not eat up your property among yourselves unjustly and you make it to the referees to eat a team of people's money guilt and you know”*

*Albaqra verse “188”*

Additionally, since the IBS is as a system that based on Shariah law which emphasis on the good moral framework, it is distinguishing itself by the enforcement and practices of ethical norms and public obligations towards the society (Finance *et al.*, 2008; Ahmed, 2000; Warde, 2000).

Hence, the IBS is is not just about prohapting of deal with riba (usury) matching and ensuring the techniques and legal requirements of financial products to be compliant with Islamic law, but this Islamic method of finance and system goes further to look at issues of contributing to the accomplishment of the socio-economic objectives and the creation of a just and egalitarian society (Amin & Isa, 2008; Dusuki, 2008; El-galfy & Khiyar, 2012; Gayatri, Hume, & Mort, 2011; Hassan. & Lewis, 2007; Rashid, 2009; Shahid & Siddiqui, 2001).

In the way of conducting business, Shariah Compliant banks seek to bring about a lasting balance between earning and spending in order to achieve betterment for the whole community (El-galfy & Khiyar, 2012).

Al-Omar and Abdel-Haq (1996), and as stated by Al-Omar and Iqbal, (2011), they stated that, the duty of Islamic finance institutions/organization in respect of the society in where they operating is through the provision of a clear expression which have to be consistent with the outlined statement in that has been sated by the international association of Islamic banks:

*“The Islamic finance system involves a social implication which is necessarily connected with the Islamic order itself, and represents a special characteristic that distinguishes Islamic banks from other banks based on other philosophies. In exercising all its banking or development activities, the Islamic bank takes into prime consideration the social implications that may be brought about any decision or action taken by the bank. Profitability, despite its importance and priority is not therefore the sole criterion or the prime element in evaluating the performance of Islamic banks, since they have to match both between the material and the social objectives that would serve the interests of the community as a whole and help achieve their role in the sphere of social mutual guarantee. Social goals are understood to form an inseparable element of the Islamic banking system that cannot be dispensed with or neglected.” (p. 27)*

The above statement is a representation fact of the IBS in regard to the social responsibilities and commitments. Undoubtedly, IFS in general and IBS specifically operates in line with the Shariah based principles and philosophy that deviates too much from the traditional one, which are aligned and identical with the capitalist ideology of maximizing profitability.

The principle of Islam In terms of justice, fairness and brotherhood bring to the light well-being of all humans as the main objective of Islamic law. Health care, including both physical and spiritual satisfaction of individual personality is embedded in everything that happiness in in both realms “this world and the Hereafter”. For that reason, money or financial maximization is not a sufficient goal of a Muslim ummah

(Muslim nation), rather, it have accompanied efforts at ensuring spiritual wellness in the inner core of human consciousness, justice, fairness, good manner and ethics at all levels of human endeavours (Hassan, & Lewis, 2007).

Consequently, whilst the traditional companies and institutions are mostly profit maximization oriented as its main goal and priority, IFS incorporates both profit and social obligation as her objectives (Ahmed, 2000). Thus, it is only when daily endeavours are in this trend that it conforms with the objectives of Shariah. Nevertheless, although what has stated above, it is misunderstanding to believe that Islamic finance system instructions or banks in specific; are welfare oriented organizations or charitable institutions that duly have a worries for the distinguished in terms of financial dealings in the society (Ackermann & Jacobs, 2008; Zainal, 2009).

Likewise, it is totally unacceptable for at level of the IBS's management to tighten on the money or financial maximization policies and deemphasized or neglect the most important element of IFS which is the social responsibilities (Haron, 2004). As matter of fact, the Shariah law struggles for setup a better balance between profit as a goal and social objectives. It is considered unfair if Islamic financial institutions' cannot provide sufficient returns to depositors and shareholders who have entrusted their money.

In addition, the Shariah compliant financial organizations are prohibits financial institutions compliant with Islamic law to take advantages over the customers needs or achieving an excessive earnings at the expense of its customer or any other customer. It is also wrong to undermine and neglect their social responsibility to their various partners (Chapra, 2001; Dusuki, 2008). Table 2.2 displays the Fundamental

differences summarized between the Islamic Financial System (IFS) and conventional financial system.

Table 2.2

*Fundamental Differences Summarized between IFS and Conventional Financial System*

<b>Islamic Finance System</b>	<b>Conventional finance system</b>
The functions and operating modes of Islamic banks are based on the principles of Islamic Shariah.	The functions and operating modes of conventional banks are based on fully man made principles.
In contrast, it promotes risk sharing among provider of capital (investor) and the user of funds (entrepreneur).	The investor is assured of a predetermined rate of interest.
It also aims at maximizing profit, but subject to Shariah restrictions.	It aims at maximizing profit without any restriction.
In the modern Islamic banking system, it has become one of the service oriented functions of the Islamic banks to be a Zakat Collection Centre and they also pay out their Zakat.	It does not deal with Zakat.
Participation in partnership business is the fundamental function of the Islamic banks. So we have to understand our customer's business very well.	Lending money and getting it back with compounding interest is the fundamental function of the conventional banks.
The Islamic banks have no provision to charge any extra money from the defaulters. Only a small amount of compensation and these proceeds is given to charity. Rebates are given for early settlement at the Bank's discretion.	It can charge additional money (penalty and compounded interest) in case of the defaulters.
It gives due importance to the public interest. Its ultimate aim is to ensure growth with equity.	Very often it results in the bank's own interest becoming prominent. It makes no effort to ensure growth with equity.
For the Islamic banks, it must be based on a Shariah approved underlying transaction.	For interest-based commercial banks, borrowing from the money market is relatively easier.
Since it shares profits and loss, the Islamic banks pay greater attention to developing project appraisal and evaluations.	Since income from the advances is fixed, it gives little importance to developing expertise in project appraisal and evaluations.
The Islamic banks, on the other hand, give greater emphasis on the viability of the projects.	The conventional banks give greater emphasis on credit-worthiness of the clients.
The status of Islamic bank in relation to its clients is that of partners,	The status of a conventional bank, in relation to its clients, is that of creditor and debtors.
Islamic bank can only guarantee deposits for deposit accounts, which is based on the principle of al-Wadiah, thus the depositors are guaranteed repayment of their funds, however if the account is based on the	A conventional bank has to guarantee all its deposits.

Source: Finance *et al.*, (2008)

#### **2.4.4 The Islamic Banking System IBS Models**

Generally speaking, in the Shariah compliant system there are commonly two nonconformist views explaining the objectives of Islamic banking. First outlook which according to Chapra's model and reported in the literature by several authors such as



Lewis and Algaud, (2001); Chapra, (2001); Echchabi, (2012); Finance *et al.*, (2008); Hassan and Lewis, (2007); Ismail, (2010); Siddiqi, (2006) look at the Islamic finance system and its institutions as being based on socioeconomic purpose.

However, numerous proponents of this view such as Sadr, (1982); Ziauddin Ahmad, (1984); Ahmad, (2000); Haron, (1995, 2000); Siddiqui, (2001); Rosly & Bakar, (2003); Haron & Hisham, (2003); Naqvi, (2003); Siddiqi, (2006, 1983). The system should be compatible with the provisions of Islamic law not just exclusively for profit, instead of other steps to promote Islamic standards or ethics and values as well as the protection of the individual's necessities and the entire society.

This model puts maximal emphasis on the social well-being and religious obligations and responsibilities on the Islamic finance system. This is in order to achieve the Islamic economic objectives, that including the equitable distribution of income and wealth, social fairness and justice as well as the promotion of the economic growth and development.

However, the Chapra's model is supposed to conform by means of the philosophy as well as the teachings of Shariah ethics and overall Islamic views. Therefore, Shariah compliant institutions and organizations must endorse and emphasis on the programs and activities of social welfare and make further contributions in the direction of the needy and the poor, and of course without undermining the commercial viability.

Without any debates, the most important objective of the Islamic financial institutions is not profit making, but the endorsement of start adopting the appropriate theory and then adapted to be in line with our work social objectives of social and economic development and poverty alleviation (Zuhayli, 1985).

The Shariah compliant financial institutions are an effort to put together the social development and economic in its total structure is coordinator on the basis of Islamic instruction, however, the system avoids untruthful transactions, which are capable of, or would have a negative economic impact on the social (Al-Zuhayli, 2003; Hossain, 2009).

Conversely, Ismail's (2002), views Shariah compliant banks as a normal commercial entity which has the sole responsibility for the accomplishment of projects but compatible with Islamic law. Furthermore, Lewis, (2007), believed that, the primary responsibility of the bank should be directed towards shareholders and depositors, whereas the other things such as "social welfare goals" are should be fulfilled by the government or other bodies. In the way of achieving the Islamic philosophy gale, it is an necessary for those Shariah compliant banks to pay Zakah (donation or tax) which is a part of the society, and that would be as a social contribution in order to meet Shariah obligation. However, the improper use of the depositors and shareholders' funds in other social activities (which are not in demand) could puts unintentionally the continuation of IBS profession and its business in the wrong path.

This view in one way or another comparable to the classic views of the West understanding (the concept of Friedman of the company's responsibility) in particular. This view claims that the community must be served by the individual whom seeking self interest (the invisible hand of Adam Smith). Therefore, maximization of the profit or capitalism in general is a legit goal for a commercial enterprise and organizations, in as much as it operates within the umbrella of the laws (Dusuki, 2008).

However, it's clear that there is no much difference between these models, borne of contention is just the degree of emphasis. They equally fundamentally fight for the aim

of IBS have to be more on a social basis responsibility, whereas, Chapra's model exert large emphasis on the direct social obligation, Ismail's view on the other hand, is more towards attainment of social objectives indirect by the institution being continuously profitable, applicable, viable as well as sustainability.

By means of these opinions on the Islamic finance institutions, the disagreement in this regard putting in the assumption the a possible result and consequence of the difference is that, these two methods are likely to be vary between IBS in the traditional alternative systems one (Lewis & Algaoud, 2001). Lewis and Algoud (2001) stated that, although of the legitimate range of financing operations and practices is common to the schools of thought, and applies to the financial institutions that compliant with Islamic law, different activities could be preferred over others, it is relying on the goals. However, Ismail model is most likely more convenient in multi-religious and culture countries such as Malaysia, whereas the Chapra model probably is a possible in a country where there is a substantial majority of people their faith is Islam, those believed in the ethics of the system (Satakunasegaran, 2003).

Thus, trend of studied should be with these distinctions in mind (Dusuki, 2008). However, there are several types of Shariah compliant financial institutions; Shariah compliant development institutions, Shariah compliant commercial institutions, Shariah compliant holding institutions, Shariah compliant operations institutions, Shariah compliant deposit accounts institutions and Shariah compliant services institutions.

#### **2.4.5 Islamic Banking System Products**

In fact, there is no such thing can be named after particular religion or philosophy, the bank is bank whether governs by Islamic law "Shariah" or any other kind of rules or

regulations. However, Shariah compliant finance system methods' does not applicable only in the Muslim countries; it can be applied anywhere else. This sort of system has been implemented in several non-Muslim countries. The development and the history of the industry are demonstrated in following Figure 2.7.

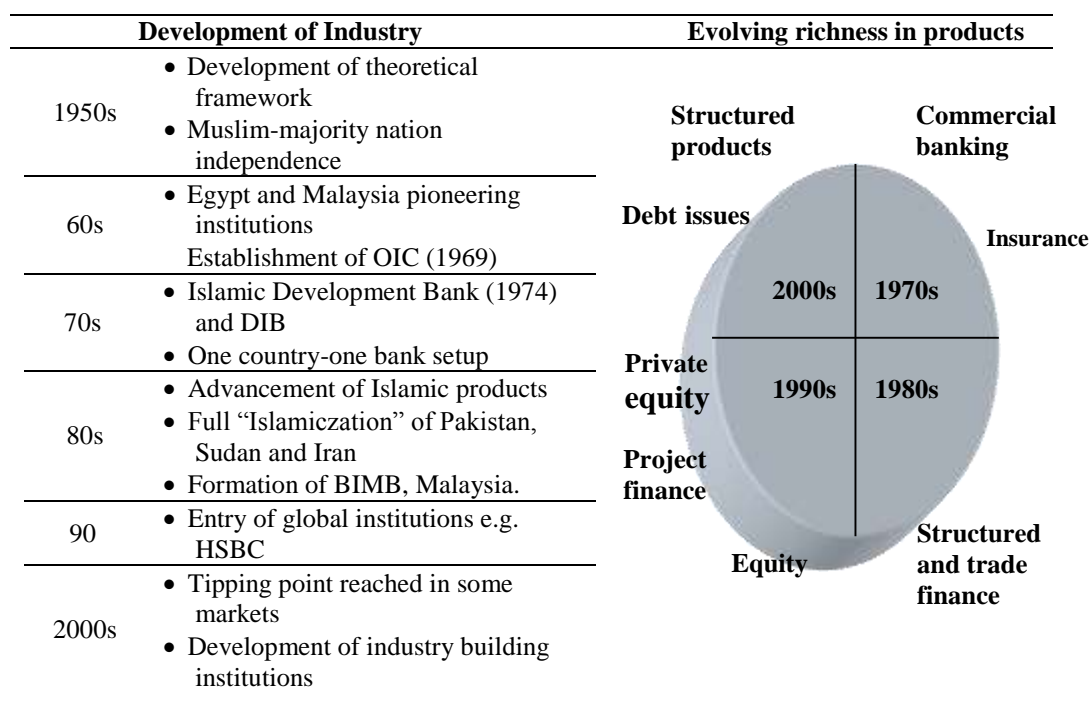


Figure 2.7

*History of the Industry Development*

Sources: Stages of Evolution in Islamic Finance, Islamic Financial Services Industry.

According to Zeti (2006) models' clarification clearly be evidence of the realism that Islamic banking system has been widely recognized as a good practicable and competitive intermediate body of finance in the world-wide market by its introduction of the variety range of financial services and products (Darwis Abd Rasak, 2008). The practicability, sustainability and competitiveness of IBS have been mainly because of several of congealing aspects which are fundamental and external in nature. Actually, what makes this system different with others is that, the IBS emphasis on the rejection of traditional financial instruments (e.g. Riba) interest or "Usury". These unacceptable financial tools according to Islamic law "Shariah " and its precepts.

Alternatively, IBS is following the precepts of the Islamic Sharia that based of profit/loss sharing concept in dealing and investment projects and thus spread the risk in better and equitable way (Darwis Abd Rasak, 2008). However, the below Figure 2.8 illustrates the evolution of Islamic financial stages through the century 1970s – 2000s.

	Institutions	Products	Area
2000s	Commercial Islamic Banks	Commercial Islamic banking products	Gulf/Middle East
	Takaful	Takaful	Asia Pacific
	Islamic investment companies	Mutual funds/unit trust	Europe/Americas
	Islamic investment banks	Islamic Bonds	Global/Offshore Market
	Asset management companies	Syariah – compliant stocks	
	e-commerce	Islamic stock broking	
	Broker/bankers		
1990s			
	Commercial Islamic Banks	Commercial Islamic banking products	Gulf/Middle East
	Takaful	Takaful	Asia Pacific
	Islamic investment companies	Mutual funds/unit trust	
	Broker/bankers	Islamic Bonds	
		Syariah – compliant stocks	
1980s		Islamic stock broking	
	Commercial Islamic Banks	Commercial Islamic banking products	Gulf/Middle East
	Takaful	Takaful	Asia Pacific
	Islamic investment companies		
1970s	Commercial Islamic Banks	Commercial Islamic banking products	Gulf/Middle East

Figure 2.8  
*Islamic Financial Services: Stages of Evolution in Islamic Finance*  
 Source: Aseambankers (2006)

However, there are several production types’ introduced by the Islamic finance system:

#### 2.4.5.1 Islamic Banking Financial Investment and Product (Mudaraba)

One of the Shariah compliant financial products is Mudaraba (مضاربة); it is an investment in stocks, property, or other enterprises in the hope of gain, putting in considerations the risk of loss. However, it’s a contract whereby one side the investor

or the owner contributes money and the other side work, being the manager or Mudarib “the entrepreneurial partner in a Mudaraba partnership who provides the expertise and management”(finance dictionary, 2009). The Rabbu Alamal “owner” should afford the entire losses, where the speculator earns share of the profit.

However, the Muodarba “speculation” is an impression which stands on providing capital to someone in order to conduct a particular work. It could be understood as being comparable to the function of an asset director or employed manager of a firm. It is somehow comparable to the function of an asset/employed manager of an organization. This concept is permissible by the consensus of the scholars, it is not only on the Shariah source base.

Profit and loss sharing, bearing mode is to share the incomes which are being provided by the manager the capital provider, with the other party who undertake the work, although the losses are borne only by the capital provider, before sharing the losses, in case there were a loss, it has to be recovered at first. Where the wages still under negotiation if they would like to negotiate (Wiki, 2011). The surplus is shared between the participants with a Takaful operator. The sharing of such profit (surplus) may be in a ratio 5 to 5 or 6 to 4 etc.

Commonly, these risk-sharing arrangements allow Takaful operator to participate in the underwriting results of operations and the performance of the favorable returns on invested premiums. Below figure 2.9 illustrates the Mudaraba procedures which is between the providers’ and the costumer.

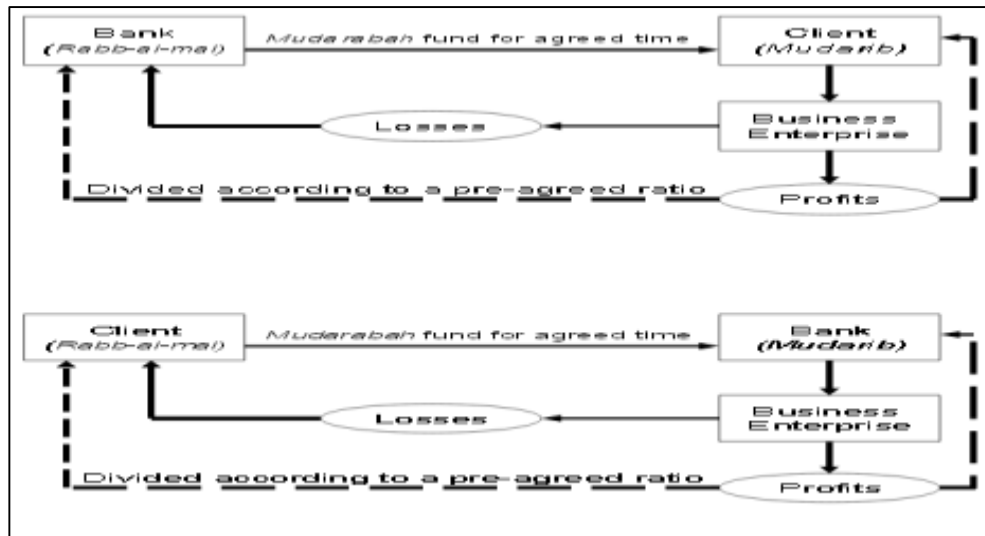


Figure 2.9  
Mudaraba Framework

#### 2.4.5.2 Takaful (Islamic Insurance)

The word (Takaful) “التكافل” concept comes from the Arabic root word ‘Yakful يكفل’ “guarantee each other” it’s referring to the good way of been united, it’s a cooperative method of life. The objective of Takaful is a cooperation and mutual help among the members of a defined group, it's built of reimbursement in case of loss, paid to people and companies concerned about hazards, compensated out of a fund to which they agree to donate small regular contributions managed on behalf by a Takaful Operator (Ajmal Bhatti, 2011).

*“Help (Ta awan التعاون) one another in furthering virtue (Birr) and Allah consciousness (Taqwa) and do not help one another in furthering evil and enmity”. Al Maidah: verse 2 (5:2)*

Takaful is a form of mutual help (Taawun) in furthering good/virtue by helping others who are in need in hardship “tie the camel first, then submit (Tawakkal) to the will of Allah”. Takaful provides a strategy of risk mitigation reduction by virtue of collective risk taking that distributes risks and losses to large numbers of participants. This mitigates the otherwise very damaging losses, if borne individually. Figure 2.10 displays the distributions of the Islamic insurance “Takaful” worldwide.

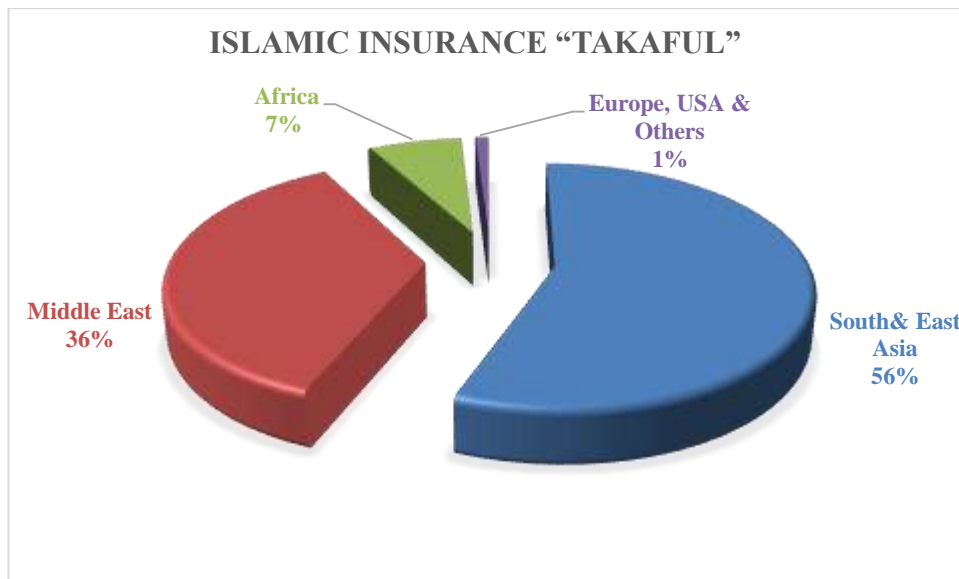


Figure 2.10  
*Islamic Insurance "Takaful" all over the World*  
 Source: (Fisher & Taylor, 2011)

However, Takaful is an Islamic Insurance where members make a payment into a pooling system in order to guarantee each other against loss or damage. Takaful branded insurance is based on Shariah law, and explains how it is the responsibility of individuals to cooperate and protect each other. It is defined as an Islamic insurance concept which is grounded in Islamic Muamalat observing the set of laws and regulations of Islamic law (Shariah).

This concept has been experienced in various forms since 622 century (Fisher & Taylor, 2011). Muslim jurists concede that the basis of shared responsibility laid the foundation of mutual insurance.

Takaful insurance companies were introduced as an alternative to conventional insurance companies products, this new product is goes against the interest "usury" which non in Islamic law as (riba) as well as the prohibition of gambling (Maisir), and uncertainty (Gharar) principles, which are forbidden in Shariah (Fisher & Taylor, 2011).



However, there are magnificent different between the Takful insurance and the conventional one which can be summarized in the following Table 2.3:

Table 2.3  
*The Main Differences between the Both Systems*

<b>Conventional Insurers</b>	<b>Takaful Operators</b>
Man-made laws and regulations and then set by the state	Quran and Hadith are the main source of the system
Profit motive: maximizing returns to shareholders	Community well-being, optimizing operations for affordable risk protection
Profits and/or bonus units to be returned to policyholders as determined post ante by managers and board of insurers	Takaful contract specifies in advance how and when profits/surplus and/or bonus units will be distributed
Initial by shareholders	Initial by rabb al-mal (agent) or paid in by means of premiums from participants
Subject to local, state and federal taxes	Subject to local, state and federal taxes (if any) plus obligated to arrange annual tithe (Zakat) donations to charity
Separation of policyholder and insurer with differing interests	Coincidence of interests between policyholder and operator as appointed by participants
Transfer of losses among insurance pools and from policyholders to shareholders	Losses retained within classes of business written and the sole obligation of the participants
Right of insurable interest is vested in the nominee absolutely in life insurance	Right of insurable interest is determined by the Islamic principles of fara'id (inheritance)
Insured may elect cost or replacement cost valuation and claim accordingly whether or not they chose to rebuild the property	Insured may not "profit" from insurance and entitled to compensation only for repair or rebuild or replacement
Agents and brokers are typically independent from insurer and paid a fee from the premium charged to policyholders that is not disclosed	Agents are employees of the Takaful and any sales commission should be disclosed
Benefits paid from the general insurance account owned by the insurer	Benefits paid from contributions (al tabarru) made by the participants as mutual indemnification
Investment of premiums conducted by insurer with no involvement by policyholders	Under the principle of Mudaraba, Takaful contract specifies how premiums will be invested and how results are shared. Under Wakala, there is a similar practice, plus participant can direct his investments into a range of unitized funds
The insurer invests premiums consistent with a profit motive with no moral guidelines; hence coexistence of riband Maysir	Takaful invests premiums in accordance with Islamic values and Shariah guidelines
Dissolution: reserves and excess/surplus belong to the shareholders	Dissolution: reserves and excess/surplus must be returned to participants, although consensus opinion prefers donation to charity

Sources: Fisher and Taylor, (2011)

### 2.4.5.3 Bia Al Salam

Bai Salam, also known as (Salam), سلم it means a contract in which advance payment is made for goods to be delivered later on with the reference to Shariah. The seller

undertakes to supply some specific goods to the buyer at a future date in exchange rate pre-paid in full at the time of the contract.

It is essential that the quality of the item to be purchased is determined completely without leaving any ambiguity leads to disagreement. Objects from this sale are the goods cannot be gold, silver, coins, or based on these metals. Except for that, Bai Salam covers almost everything that is capable of being described is certainly the quantity, quality, and workmanship. (wikipedia, 2014).

Also, it is known as (Salam) which defined as “an Islamic finance technique used to provide working capital to parties on terms compliant with Shariah”. In the transaction of Bai Al Salem, a lender buys the assets of the party seeking funding, and pay the purchase price of the asset in the early and agrees to take over the asset at a later date.

Usually, the lender receives a discount (often calculated by reference to criteria such as LIBOR) on the purchase price of an asset in the account to pay the advance. As a result, the seller receives the funds necessary for the manufacturing assets or meet other funding requirements.

The lender can access the transaction of Bai Al Salem parallel with the third party or the seller to sell assets or wait until delivery to sell this item. In both cases, usually sold assets at a higher price.

#### **2.4.5.3.1 Primary Features and Terms of Bia Al Salam**

Bia Al Salam transaction is a valid deal in the case that the purchaser may pay the commodity or goods price to the seller fully in the transaction time "time of selling".

It is vital so that the purchaser can prove that he is not going into debt with other "second party" just in order to eliminate debt with the seller "first party", and it is

forbidden under the Islamic Shariha law. The idea of Bia Al Salam is unlike other Islamic contracts and transactions in usual cases, either in quality, size or weight of the exact specifications, where it is not possible in general.

Bia Al Salam can not be affected by a particular commodity or a product of a particular field or farm. For instance, if the seller undertakes to supply wheat of a particular field, or the fruit of a certain tree, the transaction of Salam will not be valid, because there is a possibility that the crop given this area or the fruit of that tree is destroyed before delivery, and, in view of this possibility, it remains uncertain delivery.

The same rule applies to the supply of a commodity that is uncertain.

1. It is necessary that the quality of the commodity (intended to be purchased through Salam) is fully specified leaving no ambiguity which may lead to a dispute. All the possible details in this respect must be expressly mentioned.
2. It is also necessary that the quantity of the commodity is agreed upon in unequivocal terms. If the commodity is quantified in weights according to the usage of its traders, its weight must be determined, and if it is quantified through measures, its exact measure should be known. What is normally weighed, cannot be quantified in measures and vice versa.
3. The exact date and place of delivery must be specified in the contract.
4. Salam cannot be effected in respect of things which must be delivered at the spot. For example, if gold is purchased in exchange of silver, it is necessary, according to Shariah that, the delivery of both be simultaneous. Here, Salam cannot work. Similarly, if wheat is bartered for barley, the simultaneous delivery of both is

necessary for the validity of sale. Therefore the contract of Salam in this case is not allowed.

Notwithstanding, the Salam contract is the most preferred financing structure, it is carries a higher order of Shariah compliance terms (wikipedia, 2010). However, there are particular conditions for a transaction to qualify as Bai al Salam:

1. The lender will have to pay the entire purchase price.
2. The assets must be described in particular and specificity.
3. it is very important to be clear in terms of the asset quantity to be described and describe with particularity.
4. Assets delivery must be specific in terms of date.
5. Assets can not be unique (e.g.. Precious stones)

However, even though there are some comparable aspects of a forward contract, there are two fundamental differences in transactions Bay Salem:

1. Dissimilar out the traditional forward contract, which is delivered from each payment and goods at a future date, the full payment have to be in advance.
2. The purchase price of an asset takes into account the risk to the lender or buyer, which have been fully paid, but may not receive the assets.

In contrast, the traditional forward transactions take into consideration the benefits and disadvantages for both parties to postpone the payment and delivery as it demonstrated in the following Table 2.4.

Table 2.4  
*Shariah Compliant Finance Modes of System Table*

<b>Type</b>	<b>Description</b>	<b>Comments</b>
<b>PLS modes</b>	Profit - loss sharing modes	At the core of Islamic banking
<b>Mudaraba</b>	Trustee finance contract	Conditions need to be met:

	<p>The bank provides the entire capital needed for financing a project, the entrepreneur offers labors and expertise, and profit/loss will be shared at a specific fixed ratio.</p> <p>Mudarba is usually employed in investment project with short gestation periods and in trade and commerce.</p>	<p>The bank should not reduce risk requesting collateral for this purpose: it bears entirely and exclusively the financial risk. Collateral may be requested to help reduce moral hazard, e.g. to prevent the entrepreneur from vanishing.</p> <p>The rate of the profit has to be determined strictly as a percentage and not as a lump sum.</p> <p>The entrepreneur has the absolute freedom to manage the business.</p>
<b>Musharaka</b>	<p>Equity participation contract</p> <p>The bank is not the sole provider of funds to finance a project. Partners are contributing to the joint capital of an investment contributions' project.</p> <p>This kind of contract Is usually employed to finance long term investment projects.</p>	<p>The banks can exercise the voting rights corresponding to their share of the firm's equity capital. Their representative can sit on the firm's board of directors.</p> <p>All parties invest in varying proportions and have the right to practice and participate in the management of the enterprise</p>
<b>Muzarah</b>	<p>Traditional counterpart of the Mudaraba contract in farming.</p> <p>The harvest is shared between the bank entrepreneurs. The bank may provide funds or land</p>	
<b>Musaqat</b>	<p>The traditional counterpart of the Musharaka contract in orchard keeping.</p> <p>The harvest is shared among the partnerships with their respective.</p>	
<b>Direct investment</b>	<p>The same concept as in conventional banking. A bank cannot invest in the production of goods and service which</p>	
<b>Non-PLS Modes</b>	<b>Non-PLS Sharing Modes</b>	<b><i>They are used in cases where PLS models cannot be implemented, for example, in cases of small-scale borrowers or for consumption loans.</i></b>
<b>Qurd Hasan</b>	<p><b>Al-Beneficence loans</b></p> <p>These are zero- return loans that the Quran exhorts Muslims to make to "those who need them" banks are allowed to charge the borrowers a service fee to cover the administrative expenses of handling the lone, provided that the fee is not related to amount maturity of the loan.</p>	
<b>Bai'Mua'jjal</b>	<p>Deferred payment sales</p> <p>The seller can sell a particular product on the basis of a deferred payment in installment or in a lump sum payment. The price of the product is agreed upon between the buyers and the seller at the time of the sales and cannot include any charge for deferring payment</p>	<p>Contrary to contracts based on the PLS principle, modes such as markup leasing and lease purchase have a predetermined and fixed rate of return and are associated with collateral.</p> <p>However, banks may require the client to offer collateral.</p>

Table 2.4 (Continued)

<b>Bai'Salam</b>	<p>Purchase with deferred delivery. Buyers pay the seller the full negotiated price future date. This mode only applies to products whose quality and quantity can be fully specified at the time the contract is made. Usually, it applies to agricultural or manufactured products.</p>	<p>These instruments can be considered to be more closely associated with risk aversion and they do not substantially differ from those used in a conventional system, other than in their terminology and in some legal technicalities.</p> <p>They are considered to conform to the Islamic principal because the rate of return is meant to be tied to each transaction, rather than to Muslim scholars' dimensions.</p> <p>Some Muslim scholars advocate a stricter utilization of such modes.</p>
<b>Ijara</b>	<ul style="list-style-type: none"> <li>- Leasing</li> <li>- Lease purchase</li> <li>- Parties lease a particular product for a specific sum and a specific period of time.</li> </ul>	
<b>Murabaha</b>	<ul style="list-style-type: none"> <li>- Mark-up</li> <li>- The seller informs the buyers of his cost of acquiring or producing a specified product, and then the profit margin (or markup) is negotiated between the buyers and seller. The total cost is usually paid in instalments.</li> </ul>	
<b>Jo'alah</b>	<p>Service charge</p> <p>Party undertakes to pay another party a specified amount of money as a fee for rendering a specified service in accordance with the terms of the contract stipulated between applying to transactions such as consultations' and professional service fund placement, and trust services.</p>	

Source: Kazarian, (1996); Sundarajan and Errico, (2002); Kazarian, (1993); Iqbal and Mirakhor, (1987)

The following Figure 2.11 illustrates the Islamic modes of finance fretwork:

Nevertheless, there are several and important different points as well as features in

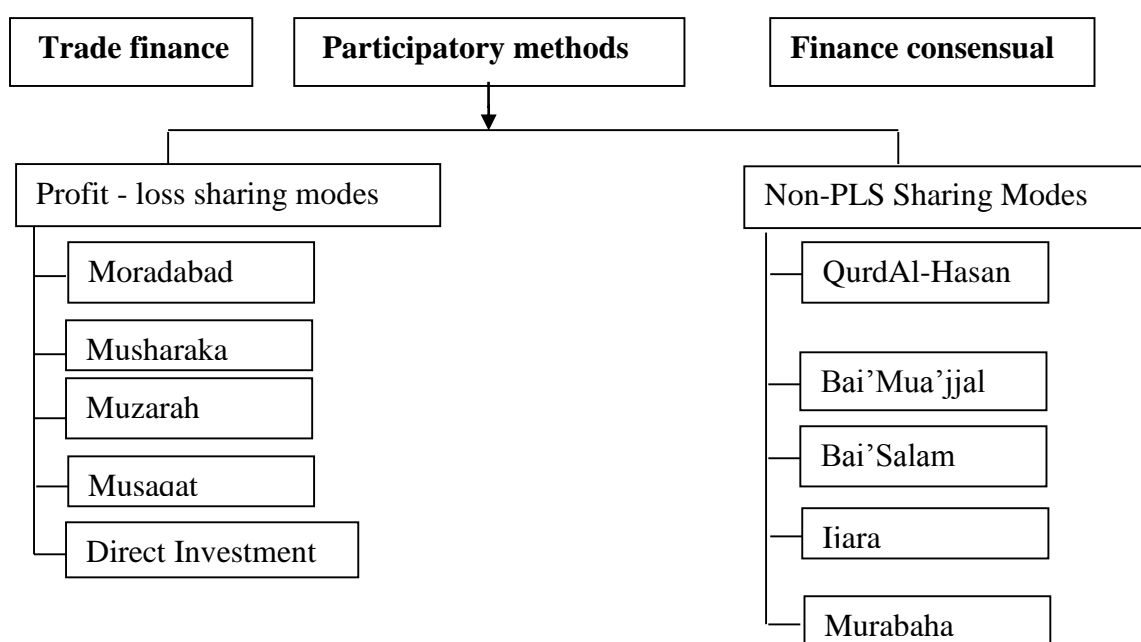


Figure 2.11

*Islamic Modes of Finance Fretwork*

Source: Kazarian, (1996); Sundarajan and Errico, (2002); Kazarian, (1993); Iqbal and Mirakhor, (1987)

many aspects among both systems the IBS and conventional financial system which demonstrated in following Table 2.5.

Table 2.5

*Different between IBS and Conventional Financial System*

Features	Islamic banking System	Conventional
<b>Guarantee of the capital value of : demand deposits</b>	Yes	Yes
<b>Investment deposits</b>	No	Yes
<b>Rate of Return on deposits</b>	Uncertain, not guarantee for investment deposits. Demand deposits are never remunerated	Certain and guarantee
<b>Mechanism to regulate the final return on deposits</b>	Depending on bank performance/profit from investment	Irrespective of bank performance/profit from investment
<b>Profit/loss PLS principal applies</b>	Yes	No
<b>Use of ;Islamic mode of finance: PLS and non-PLS modes</b>	Yes	Non-applicable
<b>Use of discretion by banks with regard to collateral</b>	Generally not allowed to reduce credit risk in PLS modes. By way of exception, may be allowed to lessen the moral hazard in PLS modes. Allowed in non-PLS modes.	Yes, always

Source: Sundarajan and Errico, (2002)

#### **2.4.6 Islamic Banking System Bonds or Securitization (Sukuk)**

One of the most powerful Shariah compliant financial products is “the Shariah compliant bonds/Islamic Modern Sukuk”, the word Sukuk is the plural words of **صك** Sakk; which is an Arabic term or name; the better description is that Shariah compliant investment certificates.

This distinction is crucial as far as what is important, and stressed that throughout this pioneering work tool simply should not be considered a substitute for traditional securities usury. The goal is not only to engineering financial products that mimic the fixed rate bonds and bills and notes floating rate of interest as understood in the West, but also to develop innovative types of assets that are compatible with Islamic law “Shari'a”. However, it is not permissible in Islamic law (Shariah) dealing with fixed income and interest bearing bonds.

Thus, instruments and securities that comply with Islamic law (Sharia) and the principles of investment, which prevent charge or paying the riba "usury". Financial assets that comply with Islamic law can be classified according to the possibility of being trafficked, but prohibit to be traded in the secondary market. Basic concepts are:

1. Rights and duties have to be stated clearly and transparent manner;
2. The revenue of the securities has to be relevant to the intent and objectives for which that funds are used, and not include interest.
3. It must be backed securities true underlying financial assets, not just being merely derivative paper.

With Islamic fixed income securities are emerging already a large class of assets, and for Muslim investor are likely to be as conventional bonds to investors in general. Besides, for non-Muslims investors those already have traditional securities



investment, the purchase or acquisition of these new instruments is entering a new asset class in their portfolios, bringing more diversity than welcome and may reduce the risk.

Attention is given a lot to the sovereign Sukuk issued by several countries such as Malaysia and Bahrain before the instruments and the Kingdom of Saudi Arabia, Qatar, Saudi Arabia and others. These new instruments have attracted international attention and widespread of all of bankers and investors from Islamic finance and conventional systems.

Scope for converting the existing traditional government debt instruments to enjoy the tremendous acceptance of Sharia Sukuk is clearly as is the possibility of new debt issuance conditions are likely to be cheaper and less risky than those that apply to conventional bonds. So far, there have been relatively few Sukuk companies. These new Islamic financial instruments might become a vital financial tool for companies in all parts of the Islamic world as well as in the West.

As it should be asset-backed instruments, and housing and real estate represent a fertile field for such Islamic security issues. Those contemplating the launch of instruments or invest in such tools and of course will be concerned with legal issues and taxes. The following Table 2.6 shows the Country-wise breakdown of total global Sukuk issuance:

Table 2.6  
*Country-Wise Breakdown of Total Global Sukuk Issuance by Volume*

<b>Country</b>	<b>Number of</b>	<b>Volume</b>	<b>% of Total</b>
<b>Malaysia</b>	1592	115393.8	58.51%
<b>UAE</b>	41	32201	16.33%
<b>Saudi Arabia</b>	22	15351.88	7.78%
<b>Sudan</b>	22	13057.71	6.62%
<b>Bahrain</b>	125	6291.69	3.19%
<b>Indonesia</b>	70	4658.5	2.36%

Table 2.6 (Continued)

<b>Pakistan</b>	35	3447.207	1.75%
<b>Qatar</b>	6	2500.79	1.27%
<b>Kuwait</b>	9	1575	0.80%
<b>Brunei Darussalam</b>	21	1175.91	0.60%
<b>USA</b>	3	767	0.39%
<b>UK</b>	2	271	0.14%
<b>Singapore</b>	5	191.96	0.10%
<b>Germany</b>	1	123	0.06%
<b>Turkey</b>	1	100	0.05%
<b>Japan</b>	1	100	0.05%
<b>Gambia</b>	7	2.086	0.00%
<b>Grand Total</b>	1963	197208.496	100.00%

Source: IIFM: The International Islamic Financial Market's Organization and (Garg, 2012)

As displays in Table 2.6 and below figure 2.13 Malaysia ranked to be the first country Sukuk issuer with a market share of 58.51%, where UAE in the second with 16.33% of the market share, where non-Muslim country such as the USA have portion of 0.39% as reported by the International Islamic Financial Market's Organization.

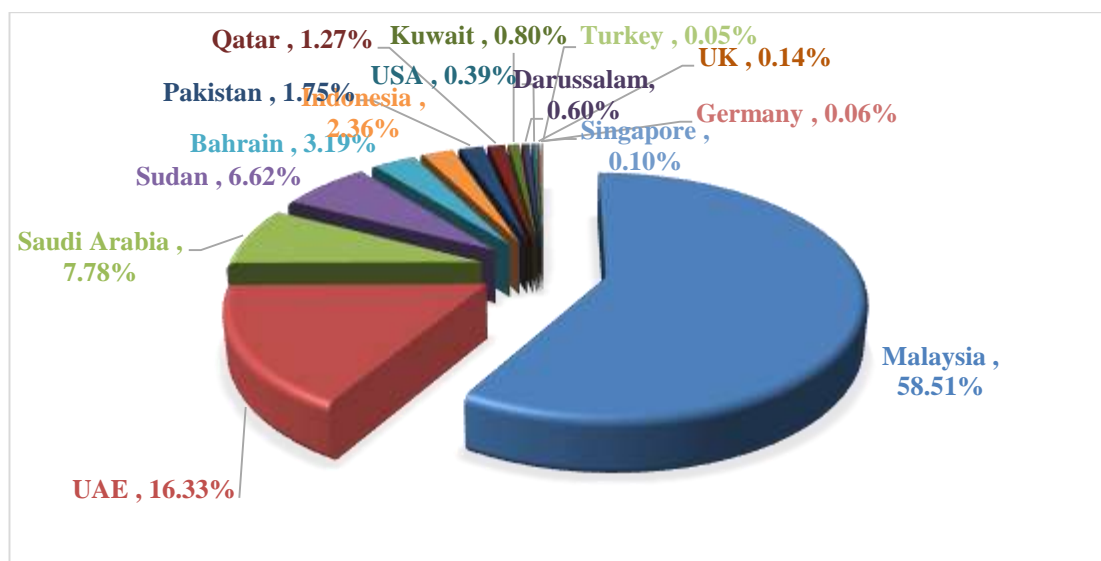


Figure 2.12

Country-Wise Breakdown of Total Global Sukuk Issuance by Volume

Source: IIFM: The International Islamic Financial Market's Organization and (Garg, 2012)

#### **2.4.6.1 Why Have Shariah Compliant Bonds?**

It is important to understand the reason of the introduction of Shariah compliant Bonds. In actual fact, Muslims are guided by Shariah law where it is one of their rules to not deal with Riba "interest". Therefore, any kind of activities involved with Riba is prohibited. As a result, any financial institutions or even individuals who deal according that yield riba "interest" is not acceptable and forbidden according to the Muslims' faith "Shariah law".

The ambiguity of the nature of the business of these conventional bond issuers in many cases is a subject of serious concern to the Muslim's investors, where these organizations' could involve in a forbidden activities "Haram" for instance the manufacturing of alcoholics and the highly leveraged associated with bank debt, which might lead many companies to refinance through issuing bonds so on.

In actual fact, one of the main objectives of the traders of the bond is to make capital gains as fixed-interest bond prices rise when variable market interest rates fall. Hence, these bonds are usually about take an advantage of the developments and trading of its interest rate on paper which is usually unconnected according with its value. The main risk to the traditional bond holders are the payments by default, but usually these risks are evaluated only on the basis of the credit rating, which is usually with the rating agency rather than the buyer's risk assessment bonds.

Thus, the bond is considered as just a piece of paper with third parties estimate the risk and the buyer, at best, just making the risk/benefit calculation without any reference to the work being funded.

According to Wilson (2004) one of the unique features that legitimizing the IFS could be the necessity of including trade finance in the production of real assets. Wilson (2004) adds that:

*“Merely funding the purchase of financial securities would involve second order financing akin to lending for derivatives, the subsequent gearing being speculative and increasing uncertainty, or Gharar. Hence, with Murabaha, commodities are purchased on behalf of a client and resold to the client, the temporary ownership of the commodity justifying the financier's mark-up. Istisna involves the financing of manufacturing capacity through pre-production payments, but these relate to construction or equipment purchases where real capacity can be identified”.*

Likewise, the Ijarah contract consists of the leasing of real assets, by means of the use of the assets which is justifying the payment of rental to the owner. Indeed, the key principle of the IFS is the participatory, therefore, the purchasers of Islamic bonds have the absolute right to understand and be fully knowledgeable regarding how these bonds business works.

It is worthy to mention that, Islamic Sukuk must be guaranteed, pledge and earmarked which is one of its features and clear in terms of its used general purposes, which is can be through the issuer or sovereign authorities.

Therefore, the need of Islamic bond came into the picture, to avoid the ambiguity could happen in many cases. The Sukuk Emergence history is shown in Figure 2.13.

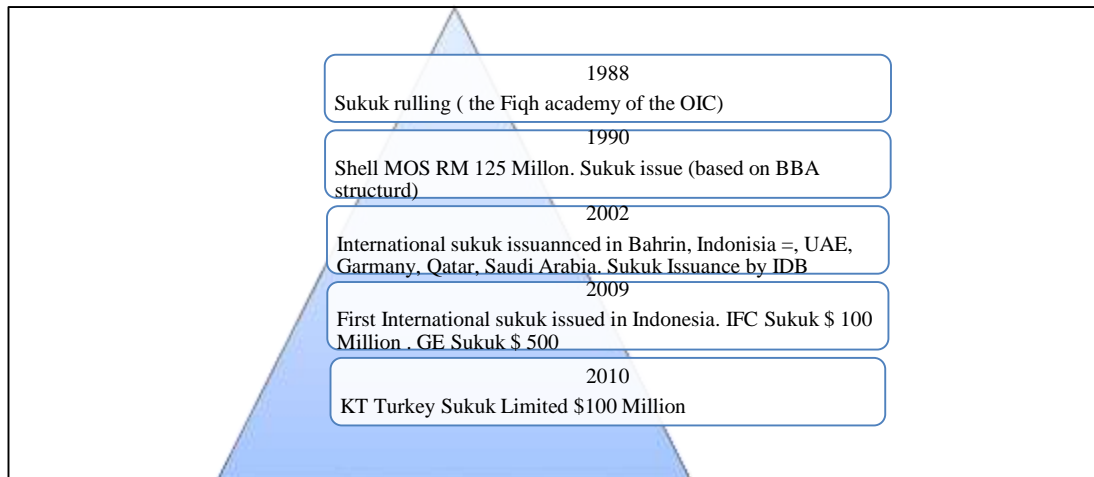


Figure 2.13  
*Sukuke Emergence*

#### **2.4.6.2 Types of Sukuk**

The Islamic Sukuk “bonds” have different types which are usually subject upon the category of IFS manners of financing and trades that used in its structuring. However, among these bonds, Ijarah, Shirkah, Salam and Istisna are the most pronounced, vital and common used. According to the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), there are several types of Islamic bonds, following are more common Sukuk (Brugnoni, 2008):

- ✓ *“Mudaraba Sukuk*
- ✓ *Musharaka Sukuk*
- ✓ *Ijara Sukuk*
- ✓ *Murabaha Sukuk*
- ✓ *Salam Sukuk*
- ✓ *Istisna Sukuk*
- ✓ *Hybrid Sukuk*
- ✓ *Al Musaqaa Sukuk Ijarah*
- ✓ *Thumma Bai' Sukuk*
- ✓ *Wakalah Sukuk”*

#### **2.4.6.2.1 Salam Securities**

The Salam securities are refers to the transaction of which the seller undertakes to supply a particular product or goods to the buyer at a future date in exchange for advanced price, fully paid on the spot. Therefore, the price should be in cash, with deferred delivery of goods purchased.

However, the agriculturalists could be a good example for this kind of securities, in the case of they used these securities, since they cannot borrow in basis of interest they instant receiving early payment in order to meet immediate obligations until they get yields. The vital part of users of Salam security is that, the early payment is usually lower of the amount must pay, if the buyer postpones his purchase and bought a spot of the same goods in one or in more than two months.

Though, the Salam securities is explains or representative of a forward contract, the contract will be illegal and prohibited if there are any unclear and anonymous conditions according to the Shariah law. However, to fulfill the terms and conditions of such security there certain steps have to be followed.

Nevertheless, the buyer has to make full initial payment in the first place which in order to avoid any ambiguities' of transactions between the seller and buyer. A second important condition for this contract is that, the goods or product must be measured in very good manner, and accurately, where these goods or product would be only be standardized. As a matter of fact, the first used of Salam securities was in the earlier and initial transaction of grains for instance (wheat, barley and rice, etc..), however, it could include the use for any prices under the agreement between them if buyer are agreeing for the payment.

However, according to one of Islamic School of jurisprudence “Maliki” they specified that this kind of sanctuaries “Salam securities” which is to linking foodstuffs is essentially non-negotiable instrument for traded, by means of could be taken as only speculating on necessities (Wilson, 2004).

However, although the contract is not acceptable to re-deal the product covered by a Salam securities unless by receiving it first, on the other hand, it is allowable for the for the recipient from selling the goods by or with some else contract with equivalent to the first contract (Adam & Thomas, 2004). In actual fact, the purpose of such a parallel Salam securities contract is to guarantee the investor or financier, typically a bank, is not left with a product or goods which it has law capability in dealing or trading with such transaction. Nevertheless, the Salam securities and certificates may perhaps also view as a way to avoid such dilemma which could face those banks who deals with such securities.

#### **2.4.6.2.2 Tiarah Bonds**

According to the Ijarah securities contract, once the payment of the property under procedure made, the ownership of this particular property transformation has to be made to the new owner, which of course enable him for the full use of it as one of his/her own property. This contract is leasing, contract between two parties or individuals (Mujir and Mustajir) the lessor and lessee.

However, it is understood as the Shariah law aims to protect the involved parties where the Islamic law imposes strict forward terms and conditions which is included the removal of uncertainty and ambiguities which can happen in many cases due to several factors. The reality is that, these restrictions that Sharia law used to impose are not introduced usually in that leasing contract according to the conventional methods.

Moreover, the case of clarity and ambiguity in the contract can be in many forms, for instance, when the contractor has an obligation contract to maintain a specific property, that being leased, this property could be kept with the lessor as his property as if the tenant was responsible and liable. In fact, in this case more elements of uncertainty with regard to the cost to the tenant as maintenance payments can be considered as an additional element of the lease.

Where access to leased assets accidentally damaged or reduce the useful value, as in the case of agricultural land leased during periods of prolonged drought, then it can cancel the lease contract by the tenant, in modern practice, however, the leased assets are usually insurance against such possibilities. However, in the case of a tenant negligence in the use of assets, leading to a reduction or complete destruction of its value, they may be liable for damages to the owner. In actual fact, the leasing contract has many items that are corresponding with the traditional leasing arrangements.

In case of late payments, the landlord can not impose the penalty, and the gains out of this it would represent an extra both burdens on the tenant and the owner of the gain that would be comparable to usury. The tenant may be obliged to donate the amount to charity for the recognition that there was a delay in the payment of rent. If no payment is made, then use of the leased asset will return to the landlord, the tenant may still be responsible for the lease payments provided for in the original contract.

As an Ijarah contract is for a prearranged period, and as the rent provides a regular periodic say, monthly, quarterly or annual income, it is evidently well suited to be covered by the issue of securities that have many characteristics of bonds. As Ijarah bonds are securities representing the ownership of well-defined assets subject to a lease



contract, they may be traded in a secondary market at the main price determined by market forces.

There can be various issuers of Ijarah securities, including those which is issued by the central bank, ministries of finance, municipalities, and authorities responsible for religious endowments, investment banks and public or private companies. Such bonds have in usual cases maturity periods of five (5) and or more although, at present there are some issues or cases running for more than 10 years.

It is vital to note that Ajarah certificates represent a proportionate ownership claim on the leased asset, and thus are in the position of securities and obligations of ownership that just terminate since they become securities matured. Different from shareholders in the shares of joint-stock company, which is forever property rights, the leasing certificate holders are certified for a specific period. Furthermore, the holders of Leasing certificates only benefit periodically “monthly lease payments quarterly or yearly” because they cannot take advantage of capital gains, which are usually the main driver of equity investments.

Conversely, investment in the lease certificates less vulnerable to the risk of the ordinary shares, where it is a steady stream of income, the amount is regular or in somehow consistent, while any profits accruing to investors in the stock may be subject to considerable variation.

#### **2.4.6.2.3 Istisna Bonds**

Financing of the project can be done by the contractors of Istisna, where the Islamic bank offers money to pay for supplies and labor costs. Once the time project is completed, these advances have to be paid by the revenue derived from the project revenue. The Istisna contract is that kind of contracts which deals with industrialization

as commodity which has to be generated and costs incurred early before they are traded. However, according to Salous (2002) there are several factors and condition have to be considered before issuing such contract as follows:

- 1- Information to be made clear in regard to the subject under contract (type and amount of the required descriptions) which have to meet the desired specifications of this particular subject in specific and adequately in order to prevent any ambiguity on delivery. Furthermore, defines and terms have to be clear.
- 2- This particular subject has to be manufactured, which enter the industrial process, not legumes and cereals, and so on.
- 3- The materials used in the manufacture of the particular subject under contract have to be made by the lessor (raw material should be from the lessor) otherwise if the raw material owned by the leasing this would not be an Istisna contract.
- 4- Clear statement of price, type and number in order to prevent ambiguity as well.
- 5- The place a statement sales, delivery has to be stated clearly.
- 6- Payment has to be immediate otherwise detail and clarification needs to be clear.

However, it is worthy to mention that, the purchase price of the properties may possibly less than the late price by means of this represents a trading matter. Therefore, clear agreement between financier and the lessor or supplier of properties/services in order to transmission the debt contract is required (Salous, 2002).

#### **2.4.6.3 Potential for Mudaraba and Musharaka Bonds**

The aggressive growing in nowadays global financial market, which is in usual cases make the poor struggling more and become poorer, where the rich getting more money and expands their wealth. The Mudaraba and Musharaka bonds are good alternatives to those conventional bonds; where as stated earlier, the strict constraints and conditions of dealing of these kind of bonds are unallowable to have at anyhow an

ambiguity or gambling and so on. These conditions, therefore will surely ensure the balance of the society, where it can help in reducing the uncertainty of business transaction an so on.

However, there are magnificent chances of the expansion and introducing Mudaraba and Musharaka bonds in the now world financial market. In actual fact the return variable rate rather than fixed is one of the Islamic financial system introduced solutions', where it is prohibited according to the Shariah law to deal with an variable rate of returns as for the certificate of the instance in the case of Salam, Ijarah and Istisna. The Mudarabah bonds have shown most successful performance in the case of investment deposits, according to the Islamic bank where this return (profits) has to be calculated per year grounded on the financial institution's profits.

However, the evidences of good performance of these Islamic bonds cannot denied. In trying to compare the performance of Islamic bonds and the conventional bond a studies conducted by Saad, Majid, Kassim, Hamid, and Yusof, (2010) and Segaf, (2009) have reported that in terms of performance in normal market days there are no significantly change as well as from per crisis period to crisis period, however, the study revealed during the crisis the risk of the conventional bonds is increased. This to confirm that these bonds based on Shariah law are more stable and shows less affected by the crisis.

Therefore, these fact, proofs that, Islamic bonds has has promising future where as it stated has shown good potential of performing and still have a long way to go in today's financial market.

#### **2.4.6.4 Overall Differences between Conventional Bond and Islamic “Sukuk”**

In its simplest form, the bonds are contractual debt responsibility whereby the issuer is contractually committed to pay to the bond-holders in a clear and particular date both interest and principal. On the other hand, under Islamic Sukuk structure, the Sukuk holders each hold an undivided beneficial ownership in the underlying assets.

Accordingly, the Sukuk holders are entitled to share in the revenues which generated by the Sukuk assets and being allowed to share in the proceeds of the realization of the Sukuk assets.

#### **2.4.6.5 Overall Similarities between Conventional Bond and Sukuk**

1. Marketing ability: Islamic Sukuk are liquefaction instruments are real assets, which are liquid, either can be easily transported or traded in financial markets
2. Rate-ability: the Islamic Sukuk could be easily rated.
3. Enhance-ability: The variety different Sukuk structures, may perhaps allow to credit enhancements
4. Versatility: The variety of Sukuk structures allow for: structuring across legal and fiscal domains, fixed and variable income options etc.

The issuance of Sukuk is similar to the issuance of conventional bonds as stated above. In Figure 2.15 the setting up of the Special Purpose Vehicle (SPV) is to represent the issuer and putting the Sukuk into circulation.

A detailed feasibility study (stating clear objectives to be achieved from the proposed Shariah-compliant business) and setting up of general framework and organizational structure to support the issuance process was done prior to meeting the arranger to underwrite the Sukuk issuance.

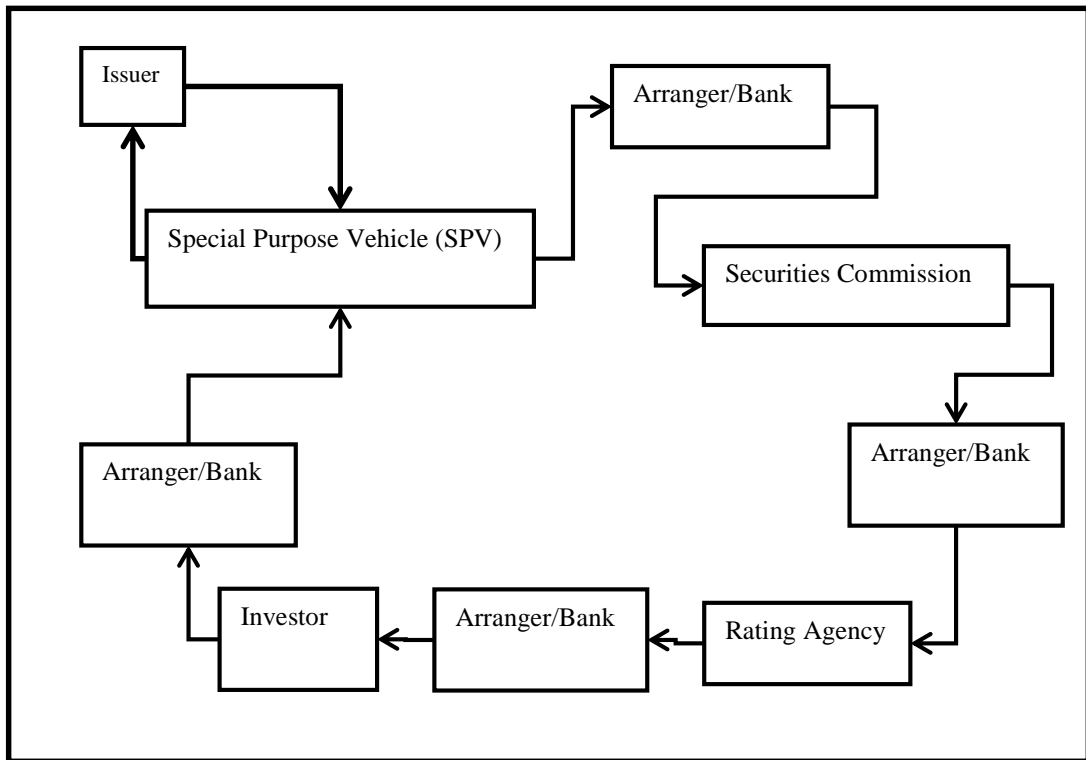


Figure 2.14  
*Sukuk Structure.*  
 Source: Shahida (2013)

## 2.5 Overview of Shariah Financial Industry in Libya

Libya is a country located in the North Africa, one of the Arab countries neighboring by Egypt from the East, Tunisia, and Algeria from the west, the Mediterranean Sea in the north and Sudan, Niger, and Chad in the south.

According to World Bank, (2015) and World Development Indicators, (2015) the latest total population of the country in 2013 was (6,201,521.00 million), with an average annual growth rate of (2.3 %), disinclined 2.5 million non-Libyan citizens and the capital city is Tripoli and the majority of Libyan is Muslims.

Table 2.7 and Figure 2.15 shows the growth of the Libyan population throughout the years 2005-2013.

Table 2.7

*Libyan Total Population 2005-2013*

2005	2006	2007	2008	2009	2010	2011	2012	2013*
5,594,4	5,686,4	5,782,1	5,876,8	5,964,3	6,040,6	6,103,2	6,154,6	6,201,5
50.00	75.00	08.00	05.00	25.00	12.00	33.00	23.00	21.00

Source: World Development Indicators

\*Estimate

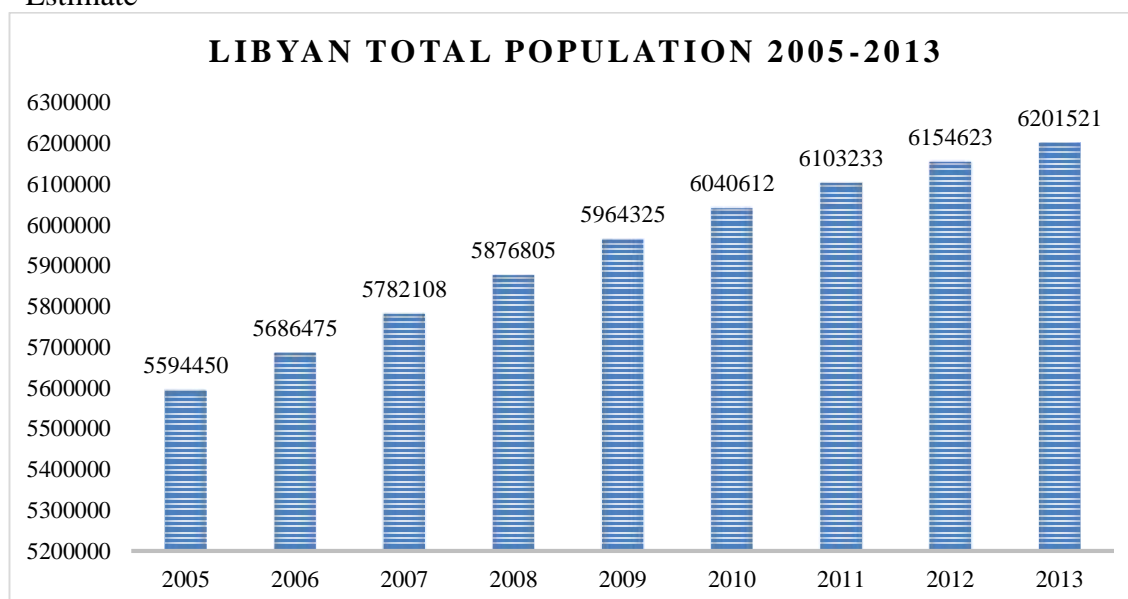


Figure 2.15

*Libya Total Population 2005-2013*

Source: World Development Indicators

### 2.5.1 The Libyan Economy

This section tries to give a brief historical account of the Libyan economy since independence up to date. According to Ahmad and Gao (2004) on attaining independence, the Libyan economy was primarily based on agriculture, which was divided more or less evenly between field (including tree) crops and livestock products. Furthermore, Annual Statistical Bulletin, (2006) and Database, (2006), reported that, Libya recorded the highest human development index in Africa and in GDP, fourth highest in the continent by 2009, after the Seychelles, Equatorial Guinea and Gabon. This is as a result of large oil reserves and low population.

However, agriculture provided raw materials for a considerable segment of the country's industrial sector, exports, and trade; employs more than 70 percent of the country's labour force; and contributes about 30 percent of the GDP (Ahmad & Gao, 2004). Illiteracy was widespread, the level of skill labor has been low and technical and management expertise were at a premium.

The inadequate skilled labour Libyans in the labour force remained a problem in the 1980s; despite large sums of money spent on training, Libyan government still relied on foreign workers (Ahmad *et al.*, 2004). The discovery of petroleum, however, changed the Libyan economy into dual economy, in which petroleum and non-petroleum sectors operated side by side. The petroleum financing and decisions all came from outside the country.

After 1972 the government began an ambitious plan of modernizing the economy, modeled on Algeria's experience. The major part of the plan was focused on building industrial capacity with emphasis on petroleum related industry. The industrialization program met with limited success, as several categories of imports began declining in the late 1970s. The decline in GDP placed great strain on government spending, reduced the level of imported goods available in Libyan markets and increased Libya's debt repayment problems. The decline in oil revenues also caused the Libyan government to revise its somewhat haphazard way of making economic policy decisions, because it no longer possessed the financial resources to achieve its many goals (Ahmad *et al.*, 2004).

Oil export revenues, that accounts for over 95% of Libya's hard currency earnings (and also 75% of government receipts) declined as a result of the fall in oil prices during 1998. Nevertheless, with the rise in the oil prices since 1999, the Libyan oil

export revenues have improved to \$13.4 billion in 2003 and a forecast \$12.9 billion in 2004 and declined to \$5.9 billion in 1998. In 2002 the financial situation in Libya was pointedly in surplus (about 16% of GDP in 2002). This is due in part to high oil export revenues, where the country has seen strong economic growth in 2003, with GDP of an estimated 2.7% increased, -3.8%, after it was (0.2%) -1.5% growth in 2002 (Ahmad *et al.*, 2004).

Libya is now estimated to have proven oil reserves of around 36 billion barrels. Libya has an "excellent" potential and high possibility in terms of oil discovery. Where, vast areas of the country remain "highly unexplored" according to Wood Mackenzie Consultants (BBC, 2008).

Regardless of the years of oil production, only 25% of overall Libya's area is expected covered by agreements with several oil companies. This delaying of under-explored areas might be due largely to sanctions as well as stringent and tough financial terms which imposed by the previous Libyan government on foreign oil companies. However, this is set to change following the lifting of the sanctions after Libya agreed to pay compensation for the Pan AM victims (BBC, 2008).

Typically, a maximum of (70% - 80%) of Libya's crude oil is sold to European countries. Where, in 2013, about 75% of Libya's crude exports were sent to Europe; the leading single recipients were Italy, Germany, and France. The United States restarted oil imports from Libya in 2004, after sanctions were lifted. The United States imported 43,000 bbl/d of crude oil from Libya in 2013, representing only about 0.6% of total U.S. imports during that year (U.S. Energy Information Administration Eia, 2014). However, Table 2.8 and Figure 2.17 display the oil exports throughout the years 2007-2010.



Table 2.8  
*Oil Exports (% of Merchandise Exports)*

Description	2007	2008	2009	2010
<i>Oil exports</i>	96.62	96.74	97.89	97.72

Source: World Development Indicators

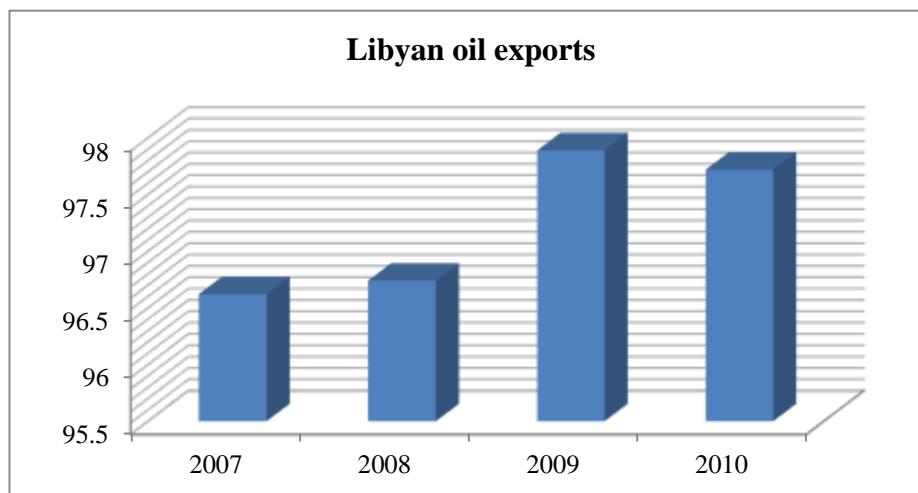


Figure 2.16  
*Libya Oil Exports Indicators*  
 Source: World Development Indicators

The below Figure 2.17 displays the top oil exporting countries which Libya ranked at the fourteen places as in 2009.

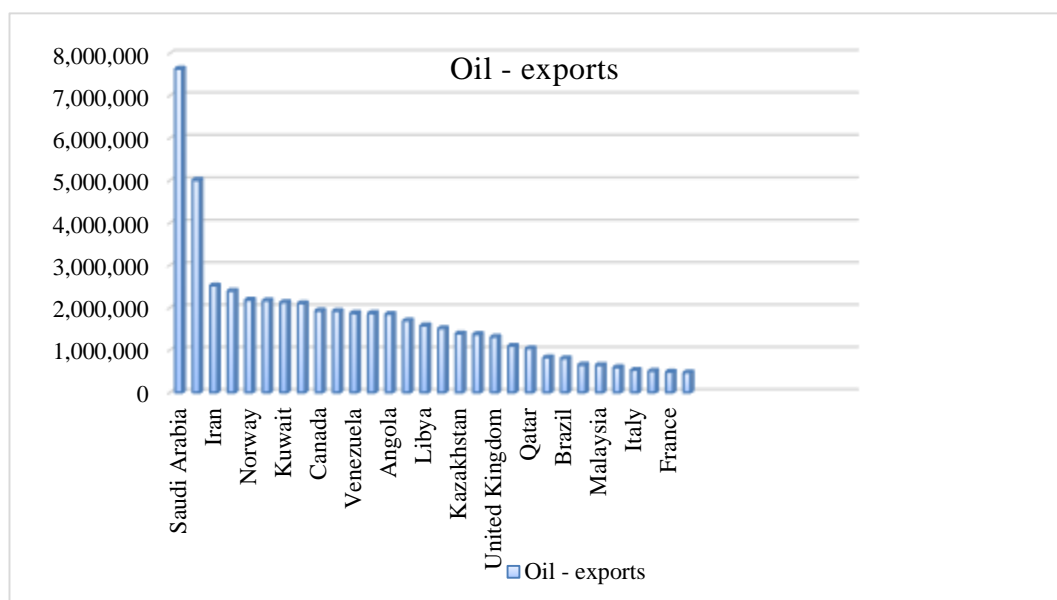


Figure 2.17  
*The Top Oil Exports Countries*  
 Source: World Development Indicators (2009)

The Libyan economy currently depends primarily on oil sector revenues, which contribute practically all the earnings of export and about a quarter of Gross Domestic Product revenue (GDP). These oil revenues, however, with a small population in terms of geographic area, has made Libya as one of the highest GDPs in northern Africa and in the entire continent in general. Non-oil manufacturing as well as the construction sector, which represents around 20% of GDP, have expanded from processing generally agricultural products to include the production of petrochemicals, iron, steel, and aluminium (Wikipedia, 2008). The following Table 2.9 and figure 2.19 shows the Libyan Real GDP growth figures and curve.

Table 2.9  
*Libyan Real GDP growth*

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
13%	4.4%	11.9%	6.5%	6.4%	2.7%	0.8%	5.0%	62.1%	104.5%	9.4%	-7.8%

\*Estimate

Sources: IMF World Economic Outlook, April 2014

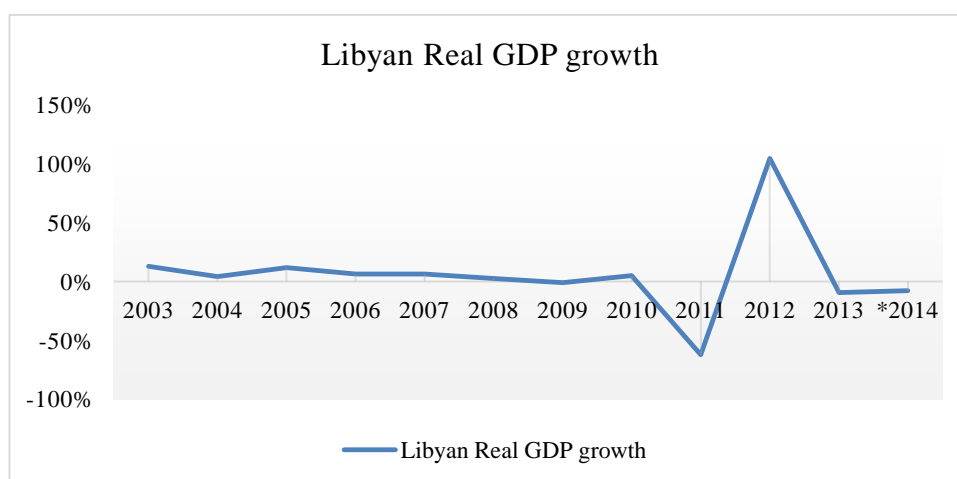


Figure 2.18

*Libyan Real GDP Growth Curve*

Sources: IMF World Economic Outlook, (April, 2014)

\*Estimate

In terms of the agricultural sector, climate and poor soil conditions severely limit agricultural output as well as the government inattentiveness had led the country to import about 75% of its foodstuffs. Despite of the continuously obvious rising prices of oil, especially in the previous years led to an increase in export revenues, which has

positively affected the macroeconomic balances, a little stimulate broad-based economic growth has been seen. In actual fact, Libya is making slow progress toward economic liberalization and the upgrading of economic infrastructure, but indeed market-based reforms is still considered to be slow in coming (Wikipedia, 2008).

However, the following Tables 2.10 - 12 and Figures 2.19 - 20 provide a brief view on the exports, imports as well as the inflation indicators as reported by the world development indicators, The World Banks (2014) on the Libyan economic indicators over the past nine years.

Table 2.10  
*Libyan Export, Import Indicators*

<b>Description</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Export	246.42	316.38	369.10	488.00	290.37	382.48	149.28	488.92	345.77
Import	130.62	121.74	123.75	150.20	224.33	292.99	116.08	320.23	397.34
Growth of GDP	9.90	5.90	6.00	3.80	2.10	5.00	-62.08	104.48	-10.88
Inflation	2.65	1.46	6.25	10.36	2.46	2.80	15.52	6.06	2.61

Table 2.11  
*Libyan National Income Indicators*

<b>Description</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
National Income	37,262,636,51	49,547,182,31	63,049,755,55	77,908,776,87	77,140,353,554.75	N/L
	3.42	3.57	3.52	9.31		

Table 2.12  
*Inflation by %*

<b>Year</b>	<b>Inflation %</b>
2011	15.9%
2012	6.1%
2013	2.6%
2014*	4.8%

\**Estimate*

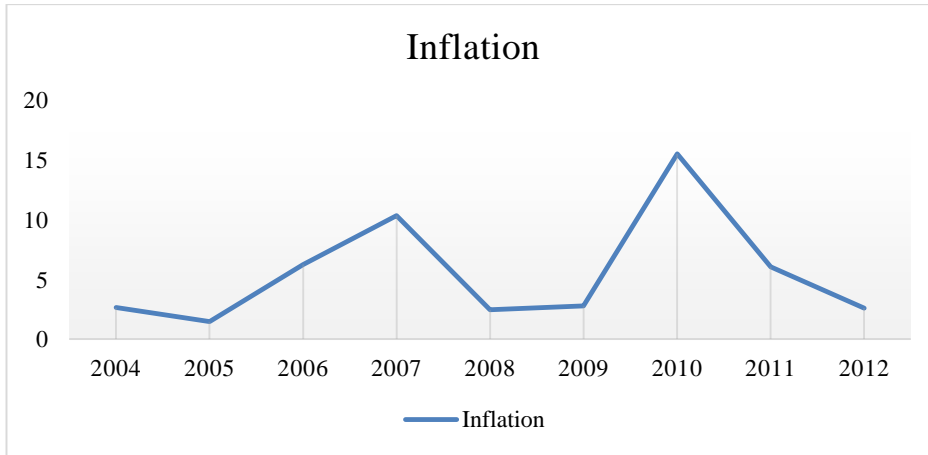


Figure 2.19  
*Libyan Inflation Index 2004-2012*  
 Sources: IMF World Economic Outlook, (April, 2014)  
 \*Estimate numbers in millions USD

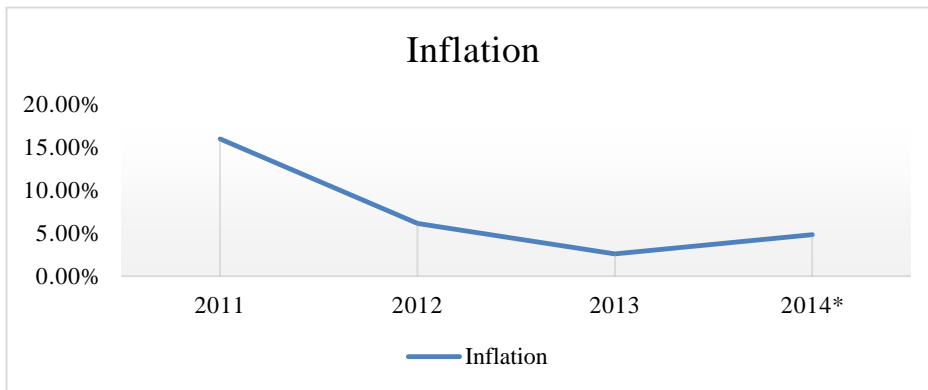


Figure 2.20  
*Inflation Index 2011-2014*  
 Sources: IMF World Economic Outlook, (April, 2014)  
 \*Estimate in %

However, the expansion in the hydrocarbon sector has, over the past 35 years, driven by the Libyan's economy with an impressively contribution of oil in Gross Domestic Product (GDP) in more than 50% of the levels of the early 1970s and 1980s. The state has invested a large sum of money in the establishment of industrial companies in the non-oil sectors over the past two decades, in the wake of the government's development plans from the 1980s.

Therefore, the non-hydrocarbons industry or non-oil sectors have risen dramatically. Nevertheless, the country still faced difficulty in being able to produce enough capital

goods and consumer goods to achieve, self-sufficiency “and self-reliance” (Ahmad *et al.*, 2004; Dardor, 2009).

However, in line with the data and information’s, Libyan government has been reported as one of the countries which have weak data availability and quality which call for caution in analytical assessments. In actual fact, even though the new Libyan government has in the last recent years made an effort in improving statistics collection, but there are still worries on the subject of the unavailability of some data, particularly in public finances as demonstrated by the absence of detailed data on local government expenditures, where on the fiscal side, budgetary data lack transparency as extra budgetary spending remained sizeable until 2004, at about 32 percent of total public expenditures (Rica & Salvador, 2013).

Leak of the quality of the national account compilation is questionable, internal consistency of estimates, information on the incidence of poverty, in the case of the education and health sectors, there is no reliable system to collect and transfer basic data on outcomes and expenditures from the regions to the center (Johnsen, Robertson, & Ashland, 2004; Roca & Salvador, 2013).

Therefore, as one of the consequences, lack of information about the total level of expenditures in these sectors appears to be very obvious and more importantly these factors makes it difficult to conduct any assessment of the long-term financial (Johnsen, Robertsen, & Asland, 2004; Rica *et al.*, 2013).

### **2.5.2 Nature of Business Enterprises**

Socialist philosophy in the country may impacted on the economy to a large extent in terms of business ownership and control of business objectives. The state owns most of the Libyan industrial companies which managed and controlled by government

institutions. Whilst, these projects are funded in different ways depending on their activities and its natural objectives.

Usually, these enterprises receive funding (for example, the launch) from the government grant. At this time, more than 195 large public enterprises are operating. The main objectives of these companies are to provide services and the production of goods to the public, rather than make a profit. Based on state socialism philosophy, given the employee has the right to establish self-management in their projects (Ahmad, *et al.*, 2004).

According to the country socialist philosophy, the majority of these enterprises is administered by the people's committees. Each committee duty to run the business and achieve all the goals of the institution . It claimed by the socialist philosophy that, it is also required of those committees for full implementation of the financial rules and regulations and control (including accounting activities) in order to follow up with all guidelines provided by the secretariats of relevant (ministries) and in return provide the secretariats with all reports (including the annual reports) and information needed (Ahmad, *et al.*, 2004).

In actual fact, the Libyan government has entire authority over, such as, the exports as well as the imports of a corporation. The majority of senior appointments in the Libyan companies were in the hands of civil servants and politicians. Therefore, it was critical for Libyan companies as well as the public institutions to changes in government policies in terms of economic, political and social issues, which absolutely will not be an easy task (Aagnaia, 1997; Dardor, 2009).

However, the central authority often brought normal operations of companies in the areas of organizational structure, and working conditions, responsibilities and budgets

authorized site, and administrative appointments. According to Dardor, (2009), the issuance Law No. 9 in 1992 had provided the basis for new partnerships members to participate in the agriculture, manufacturing, professional services and other projects as the sole owner or in partnerships, which led to the escalation of the private business.

Besides, Law No. (5) 1997, which relating to encouraging foreign capital investment to attract foreign investments and accelerate social and economic development. In line with the implementation of development plans "for 1980, the growth of foreign investment, and the emergence of the private sector and the impact of globalization, there were a strong demand for change in many aspects of the country government policies which eventually has resulted to the 2011 revolution (Dardor, 2009).

### **2.5.3 Libyan Financial Sector**

The financial system provides a range of services that support the real country economy. However, as a financial sector system, there are several types of financial service which can be as payment, settlement and transaction services, Intermediation, and risk transfer and insurance where deposit accounts allow households and companies to insure themselves against liquidity shocks, while securitization, derivatives and other insurance contracts facilitate the dispersion of other financial risks within the economy. These types of financial are representing the backbone of any financial sector in the Libyan financial sector in particular.

However, the high and strong GDP Libya's fiscal sector were able to resist the financial crisis of 2007-2008, however, the country higher management lacked the shock absorber to overcome on the internal conflict that impacted negatively in the formal sector in general. Access to fiscal services, perhaps, has been limited and as result deteriorated significantly.

With the hoped recovery of financial sector, it is hoped to see improvements, where the financial setbacks suffered during the 2011 conflict considered to be the biggest challenges, also work to remedy the financial problems in place before the conflict. As actual fact, the Libyan's successive governments were aware of their weaknesses and problems in terms of the good management of government fiscal sector (African Economic Outlook, 2012).

Accordingly, the banking sector or system was subject to a large program of renovation and renewal under the previous regime to improve products and services, establishment of a functional national payment system, deal with non-performing loans and to facilitate the use of payment of non-cash instruments, as part of the development of new accounting standards and training.

These reforms brought in some way a degree of privatisation and foreign participation in the banking sector but it was to some extent extremely limited Besides, access to private financial services was and still suffers fundamental structural problems. This is in large part due to the role that Special Credit Institutions (SCIS) played in Libya and their ability to crowd out commercial bank credit by providing zero-cost financing.

In fact, this is in large part due to the role that credit institutions engaged in the state and its ability to compete with the commercial bank credit by providing zero of refinancing cost . Moreover, a culture of "connected lending", where often they offer loans on the basis of personal relationships, impacted heavily on the availability of funding.

As a result, a very small percentage of the population have access to formal fiscal services sector (African Economic Outlook, 2012; Division, 2005). As a final point, terms of guarantees, other legal and governing rules stand to be stand to be a burden



and impediment to credit for small borrowers, which is because of the hardship to prove ownership of the land guaranteed. however, the Libyan's transitional government has made known of its intention to strengthen the financial sector in the country. hence, the government had to ensure that any reforms have to be implemented deeper than those government actions (African Economic Outlook, 2012).

### 2.5.3.1 Central Bank of Libya

The Central Bank of Libya (CBL) is a state institution which responsible for managing the currency, monetary policy and banking regulation in the Libya. The CBL is the supreme legislative authority which has the responsibilities and authorities to issue and manage the currency to safeguard the stability of the currency to manage the country's credit policy; develop and oversee the banking system in the state.

The CBL act as the government's banker, manage Libya's gold and currency reserves, provide monetary and financial support to the government, act as the lender of last resort to banks operating in the Libya and to as a matter of fact, represent Libya in international institutions such as the International Monetary Fund, the World Bank and the Arab Monetary Fund (CBL, 2007).

However, these in sum are the main roles of the CBL, which the bank should to ensure to the government as well as the public. The following Table 2.13 is the Libyan public banks list:

Table 2.13  
*List of Banks in Libya*

Bank name (In English)	Bank name (In Arabic )
Agricultural Bank	البنك الزراعي
Al-Wafa Bank	مصرف الوفاء
Alejmaa Alarabi Bank	مصرف الإجماع العربي
Alsaraya Trading And Development Bank	البنك السرايا للتجارة
Aman Bank	مصرف أمان

Table 2.13 (Continued)

Commerce and Development Bank	مصرف التجارة والتنمية
Development Bank	بنك التنمية
Gumhouria Bank	مصرف الجمهورية
Libyan Foreign Bank	المصرف الليبي الخارجي
Mediterranean Bank	مصرف المتوسط
National Banking Corporation	المؤسسة الوطنية المصرفية
National Commercial Bank	البنك الأهلي التجاري
Sahara Bank	مصرف الصحارى
Saving and Real-Estate Investment Bank	مصرف الإيداع والاستثمار العقاري
Umma Bank	مصرف الأمة
Wahda Bank	مصرف الوحدة

Sources: Central bank of Libya (CBL), (2013); Wikipedia, (2012)

The following Figure/chart 2.21 made up for the purpose of illustration of the Libyan banking system structure:

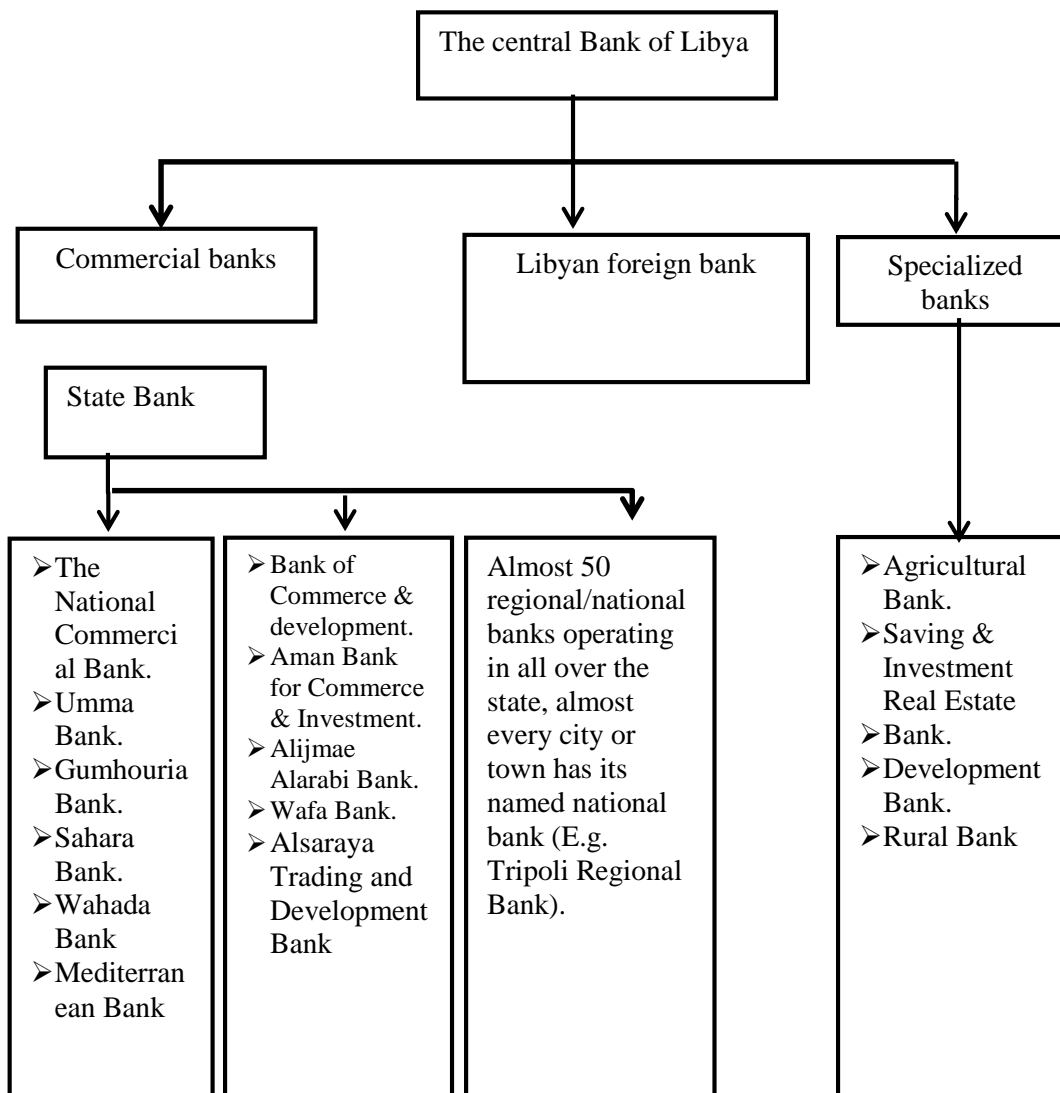


Figure 2.21  
 Libyan Banking System Structure  
 Source: CBL (2010)

### 2.5.3.2 The Islamic Banking System (IBS) in Libya

As mentioned above, Libya is an Arab state, located on the shores of the Mediterranean Sea north-central part of the continent of Africa, it categorized as one of the developing countries. It became an independent country from the Great Britain as well as French in early 1951 under King “IDRIS AL SANUSI”. With almost 6,201,521 million of the overall population Libya covers an area of 1.77 million square kilometers (685,524 square miles). As an Arabic country, the official language is an Arabic language whilst English and Italian languages have been used somehow in the field of business and

commerce. Islam is the country religion where about 97% of Libyans are Muslim (Gait, 2009). It is characterized as tribal society, where tribe, villages and family members represents its social environment. in fact, this plays a big role in the society and the public relationships among the people (Aagnaia, 1997).

According to CIA World Factbook (2010), the life expectancy had grown to 80.0 years overall which was split between 79.7 years for male and 81.9 years for females. The main exports are crude oil (which was discovered in 1959), petroleum products and natural gas. The Gross National Income per capita is US \$5,530 (World Bank, 2006). King Idris opened a 104-mile pipeline, which links important oil fields in the interior to the Mediterranean Sea and makes it possible to export Libyan oil for the first time in 1961. With it, the country was transformed into a wealthy monarchy. In 1969, however, the king was overthrown in a coup led by “Muammar Al Gaddafi”, inspired by the Egyptian leader “Gamal Abdul Nasser”, who dominated Arab politics in the 1950s and 1960s, in a bloodless coup.

Libya embarked on a radically new chapter in its history. Several actions following the seizure of power in 1969 including, for example, the nationalization of foreign companies that were operating in Libya. The private sector and foreign companies disappeared and a wide range of public-owned enterprises were formed (Gait, 2009; Dardor, 2009).

Islamic banking system has opened its doors at the first time in Libya since the act issuance of the banking (Act No. 1 of 2005), this act allowed the establishment of private banks as well as the work of foreign banks in Libya which was one of the repercussions and consequences of the global financial crisis (Jumhouria, 2005).

As a matter of fact, the new emergence of IBS as an economic system has not been affected by the financial crisis. However, It has become imperative for banks and financial institutions in worldwide, and in Libya in specific copes with these variables internally, and evolution phenomenal worldwide. Moreover, this new emerging financial system has become a new visionary way of each bank who persevered to survive in the competition among banks to prove the existence, the sophistication and diversity of services ensure the survival and prosperity, therefore, develop their knowledge and abilities, and strive to ensure customer satisfaction, because it affects the economy of the country and the nation to live up to the ranks of banks and other nations.

### **2.5.3.3 Critical Issues Associated with the Libya Banking System**

As mentioned earlier, the weak of budgetary data lack transparency as extra budgetary spending remained sizeable, and overall economic performance has been widely discussed in the economist's point of view, however, as a matter of fact, these issues related to the banking system performance where the unemployment reached its highest level in the past few years.

As central bank which always plays the role of mediator and moderators the relationship between the individual and investment or government agencies, for the Libyan central bank there are still lots of efforts to be done (Johnsen, Robertsen, K., & Asland, 2004). For that reason, it is very essential for the Libyan banking sector to improve its financial services and economic development process by introducing new industry and market such as Islamic banking industry and give more intention to these mentioned weak bottom lines of the country economically in order to accomplish better economic performance in the future.

## **2.6 Chapter Summary**

As stated above, this chapter discussed the relevant background of Shariah financial industry in general and the Islamic banking System (IBS) in particular in Libya context in specific as well as the country's history, economy the nature of business, financial sector, and a brief look at the central bank of Libya and its roles and regulations. However, it can be concluded that the reality of IBS is part of the overall financial and economic system compatible with Islamic law, which pursue for a just, equitable and stable society as envisaged and engraved substantially in the goals of Islamic law.

Hence, by the means of Muslim society' influencing by the religious obligation and beliefs, the Libyan people can benefit from such a system which absolutely Islamic way of finance. However, based on what has been written in this current chapter, it can be concluded that the Libyan economy is highly depending on the primarily upon the oil sector revenue "Petroleum products" which has been stated clearly in the Central Bank of Libya (CBL) annual reports' and the financial outlooks'.

Whereas, according to the Banker website (2010) managing liquidity has been one of the challenges faced by the Islamic finance industry; where, throughout the past five years, a number of proposals have been advanced to address the problem of a lack of instruments available to Shariah compliant institutions to manage liquidity effectively (TheBankerwebsite, 2010). Therefore, such proposals can open the door for Libyan government, economist as well as scholars to anticipate and investigate in deep into it.

**CHAPTER THREE**  
**FRAMEWORK OF THE STUDY AND HYPOTHESES**  
**DEVELOPMENT**

**3.1 Introduction**

As stated earlier in chapter two, the current research is a theory testing empirical research that involves examining the impacts of service quality elements (CARTER model) on the intention to subscribe the Islamic Banking System (IBS) in the Libyan banking sector. Based on the relevant literature, this chapter aims to establish the framework and developing the hypothesis of the study.

Nevertheless, the operational definition of the key variables, the underpinning theory and some other related theories to the current study were then explained, followed by the discussion regarding antecedents of adoption of Behavior Intention to Subscribe the Islamic Banking System (INT); then Religious Obligation (RO) and Government Support of The Islamic Banking System (GS) as moderators, followed by the Knowledge and Awareness on Islamic Banking System (KU) then the (SERVQUAL/CARTER Model) dimensions namely: Compliance, Assurance, Reliability, Tangibility, Empathy and Responsiveness.

The researcher provided an overview of the relation between service quality (SERVQUAL) dimensions' "compliance, assurance, reliability, tangibility, empathy, responsiveness" CARTER model and the INT as well as the RO and GS as moderates the relationship between the SERVQUAL/CARTER Model, KU and INT. Other factors including, knowledge and awareness about the Islamic banking system, and demographic variables (Age, gender) were examined in light of their linkages to dealing with the Islamic bank. In the final section the GS, RO with

SERVQUAL/CARTER dimensions and then their relations to the INT were explained after which the operational definitions of variables were provided.

Therefore, based on the relevant literature, this chapter aimed to establish the study framework and developing the hypothesis of the study, operational definition of key variable, the basic concepts of designing a research model, research model development and the hypothesized framework diagram were meticulously discussed. Finally, in this chapter the researcher also presented the study hypotheses development.

### 3.2 Operational Definitions of Key Variables

The following Table 3.1 demonstrates summary of the key definitions of the variables of the current research.

Table 3.1  
*Summary of Operational Definition*

<b>Variables</b>	<b>Operational Definition</b>	<b>Source</b>
<b>Behavior intention/the Intention to subscribe the Islamic Banking System (INT)</b>	“This depicts what consumers think about whether or not they will subscribe or not subscribe Islamic banking system. In other words, it is the “individual’s readiness and willingness to subscribe to the Shariah compliant financial system”. In addition, it can also be explained as how likely will the individual intentions’ of dealing with the Islamic banking System (IBS) products’ or the inclination of the individual to use or deal with a certain product”	Ajzen and Fishbein (1980); Phelps and Hoy, (1996); Belch and Belch, (2004).
<b>knowledge and awareness (KU)</b>	Awareness defined as a having or showing understanding, observation, knowledge or perception about a particular general situation or reality, where knowledge has been defined by Wirtz and Mattila (2003) as “it is the reality or condition of knowing something with familiarity gained through experience or education”. “Awareness something; knowing that something exists and is important; also defined as being interested in something (Dictionaries, 2013), where knowledge is knowledge of something exists, or understanding of a situation or subject at the present time based on information or experience (Cambridge, 2013). However, awareness in general implies knowledge gained through one's own perceptions or by means of information”.	Cambridge, (2013); Dictionaries, (2013); Wirtz and Mattila (2003).
<b>Government support (GS)</b>	“This explains the government’s facilitation of the condition which translates into how available the resources which are needed for the behavior are to be carried out”.	Triandis, (1979); Amin <i>et al.</i> , (2011).



Table 3.1 Continued

<b>Religious obligation (RO)</b>	“It discusses the affecting of religion role on the person’s choices as well as his/her actions”.	Amin <i>et al.</i> , (2011).
<b>SERVQUAL (CARTER) Model</b>	Overall <b>SERVQUAL</b> refer to meeting the customer expectations and demands whether it is a service or a product.	Parasuraman <i>et al.</i> , (1985);Sadek <i>et al.</i> , (2010); Othman, and Owen, (2001).
<b>C - Compliance</b>	“This means the ability to fulfill with Shariah compliant and operate under the principles of Shariah compliant banking and economy”.	Othman, and Owen, L. (2001).
<b>A - Assurance</b>	“It is the knowledge and courtesy of employees and their ability to inspire trust and confidence. However, it also means the polite and friendly staffs, provision of financial advice, interior comfort, eases of access to account information and knowledgeable and experienced management team”.	Parasuraman <i>et al.</i> , (1985) Sadek <i>et al.</i> , (2010).
<b>R - Reliability</b>	“Reliability depends on handling customers' service problems; performing services right the first time; provide services at the promised time and maintaining error-free recording. Furthermore, they stated reliability as the most important factor in conventional service. Reliability also consists of accurate order fulfillment; accurate record; accurate quote; accuracy in billing; accurate calculation of commissions; keep services promise. He also mentioned that reliability is the most important factor in banking services”.	Parasuraman <i>et al.</i> , (1988); Yang <i>et al.</i> , (2004).
<b>T - Tangibility</b>	“The appearance of physical facilities, equipment, personnel, and written materials. It’s also referred to modern looking equipment, physical facility, employees are well dressed and materials are visually appealing”.	Parasuraman <i>et al.</i> , (1985) Ananth <i>et al.</i> , (2011).
<b>E - Empathy</b>	“It’s the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. It is also given the individual attention; convenient operating hours; giving personal attention; best interest in heart and understands the customer’s specific needs”.	Parasuraman <i>et al.</i> , (1985) Ananth <i>et al.</i> ,(2011).
<b>R - Responsiveness</b>	“Responsiveness defined as the willingness or readiness of employees to provide service. It involves the timeliness of services. It is also involved the understanding needs and wants of the customers, convenient operating hours, individual attention given by the staff, attention to problems and customers’ safety in their transaction”.	Parasuraman <i>et al.</i> , (1985); Kumar <i>et al.</i> , (2009).

### 3.3 Underpinning Theories

Where the dependent variable was discussed in several theories and since this study focuses on intention to subscribe the IBS, there are several theories addressed the behavior intention which with believed and targeted to be discussed in the following discussion:

### **3.3.1 The Contingency Theory**

It is worthy addressing the contingency theory since this research conducting in regard to organizational level “Islamic banking system in Libyan banking context”. However, according to the Contingency theory, for an organization there are various or multiple strategic choices that can be pursued. It also posits that an organization can choose among many available choices available that are dependent on, contingent upon, the environment in which the organization operates (Schuler, 2000).

In fact, in the contingency theory the concept of “fit” has the crucial importance as it has been termed in many ways such as consistent with, contingent upon, and aligning (Venkataraman, 1989b). In other words, the concept of “fit” or “match” is the basic premise of the contingency theory (Lawrence & Lorsch, 1967). Therefore, research scholars of the contingency research and strategic management emphasized the necessity of the fit between the organizational strategy and some of the organizational variables as the key prerequisite for critical performance (Selto *et al.*, 1995; Van de Ven & Drazin, 1985).

Although it has been emphasized that the fit is the main issue in the contingency theory, there has been a clear definition of the term (Van de Ven *et al.*, 1985). Specifically, the fit term was defined using three approaches namely, selection approach, interaction approach, and the system approach. While the selection approach refers to the fit as the correlation between the environmental variables and the organizational variables, the interaction approach examines the interaction between organizational variables and the environment.

Moreover, the system approaches considers the effect of this interaction on the performance. Furthermore, in the literature of contingency theory, it has been widely

argued that organizational performance could be improved if there is an effective alignment of the key organizational variables (Naman & Slevin, 1993). According to the contingency theory, the relationship between two variables is contingent or depends on the level of a third variable.

Therefore, it was highly suggested that introducing a moderator variable into the relationship between two variables may permits more specific understanding and prevent misleading conclusions regarding the contingency relationships.

To better understand the inconsistent findings regarding the relationships between organizational strategies and organizational performance, contingency theory had a primary contribution to the development of management sciences (Venkatraman, 1989).

In an attempt to better explain and understand the relationship between SERVQUAL (CARTER) Model, knowledge and awareness on IBS and INT, the literature suggested some of the potential moderating variables of GS and RO were introduced to the research framework. However, these two variables are considered to be as one of the most important IBS variables with potential moderating power between SERVQUAL (CARTER) Model, knowledge and awareness on IBS and the INT.

However, the major purpose of this study is to examine the direct influence of SERVQUAL (CARTER) Model, knowledge and awareness on the INT as well as the effect of GS and RO interactions' on between SERVQUAL (CARTER) Model, KU and the INT relationships in Libyan banking sector context.

The importance of SERVQUAL (CARTER) Model, KU is due to the good fit that can be established with the intended strategies within the bank. Thus, this study can be

underpinned by the contingency theory. Moreover, the contribution of this study to the literature is by examining the contingency theory through investigating the interaction's role and effect of government support and religion obligation on between SERVQUAL (CARTER) Model, knowledge and awareness on IBS and the INT relationship.

### 3.3.2 The Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is a model for the prediction of behavioral intention, spanning predictions of attitude and predictions of behavior. The subsequent separation of behavioral intention from behavior allows for the explanation of limiting factors on attitudinal influence (Ajzen, 1980).

TRA theory was developed by Ajzen and Fishbein, (1977); Ajzen, (1991a), derived from previous research that started out as the theory of attitude, which led to the study of attitude and behavior. The theory was “born largely out of frustration with traditional attitude behavior research, much of which found weak correlations between attitude measures and performance of volitional behaviors” (Blank & Hennessy, 2012). However, the behavioral intention measures a person's relative strength of intention to perform behavior as it displayed in Figure 3.1.

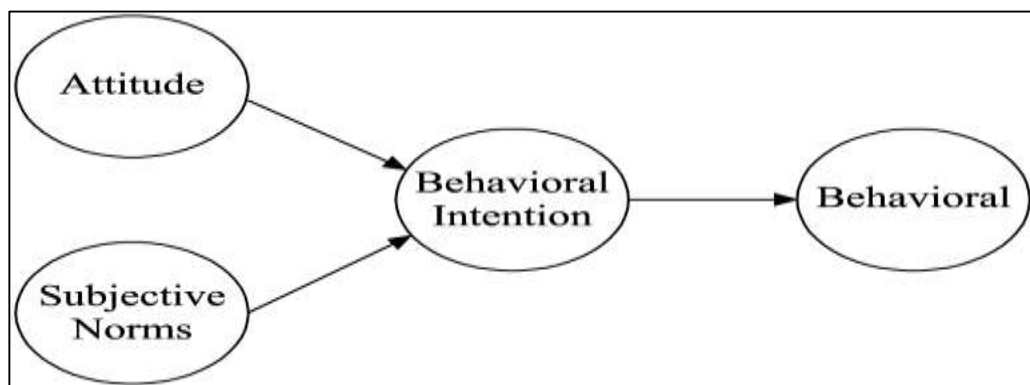


Figure 3.1  
*The Theory of Reasoned Action*  
Source: Fishbein and Ajzen (1975)

Although TRA theory addressed several aspects of the behavioral causes and effect, it also studied the behavioral intention; which can be defined according to the theory as the function of both attitudes toward behavior and subjective norms toward that behavior, which has been found to predict actual behavior.

The theory suggested that the attitudes about exercise combined with the subjective norms about exercise, each with their own weight will lead to the intention to exercise and vice versa, which of course will lead to the actual behavior. However, due to that, the theory has been revised and extended by the Ajzen himself into the “theory of planned behavior”.

### **3.3.3 Theory of Planned Behavior (TPB)**

The new extension which represented in the Theory of Planned Behavior (TPB), involves the addition of one major predictor, perceived behavioral control to the model. This addition was made to account for times when people have the intention of carrying out a behavior, but the actual behavior is thwarted because they lack confidence or control over behavior” (Miller, 2005).

At the beginning, unlike the theory of reasoned action (TRA), the TPB may include non-volitional human behavior. Behavior intention of the individual cannot be the only determinant of human action and behavior, where the control of individual behavior is incomplete. By introducing of “perceived behavioral control”, the theory of planned behavior could explain better of the existing relationship among actual behavior and behavioral intention.

Many studies have reported that the theory of planned behavior would help in many cases to expected behavioral intention in better manner than the reasoned action theory (Ajzen, 1988). Planned behavior theory has improved the ability to predict the

intention of the various health-related fields, such as entertainment, exercise and diet, etc. In addition, it can be both theories interpret the social behavior of the individual by looking at the “social base” as an important element.

Ajzen’s (199) revised conceptual model, accounting for actual behavioral control, can be expressed as follows in below Figure 3.2:

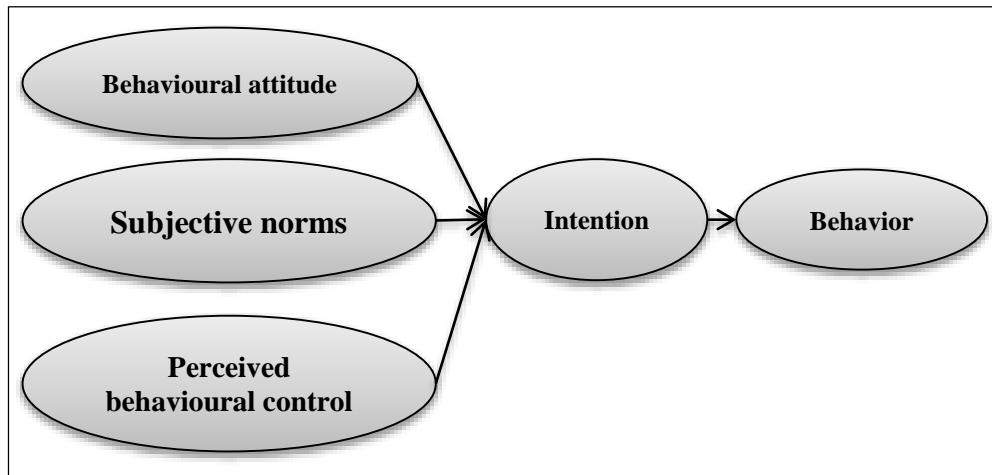


Figure 3.2  
*The Theory of Planned Behavior*  
Source: Ajzen, (1991)

Despite of the extensive efforts, the theory has some criticism; the TPB theory of planned behavior on the basis of the level of cognitive therapy and behavior change. In comparison to the emotional processing models, TPB overlooking the emotional variables for instance “the threat, negative or positive mood, fear, feeling, and evaluated in a limited way.

Specifically, in regard to the situation of health-related behavior, most of the health behaviors of individuals affected by their own personal feelings affect laden nature; hence, this defect is crucial for predicting health-related behaviors (Dutta-Bergman, 2005).

Actually, this could be attributed to the lack of predictability for health-related behavior in the field of health research to the exclude of this variable. Therefore, TPB theory can be used to underpin the variable of this study.

#### **3.3.4 Service Quality Theory and CARTER Model**

CARTER is an extension of the SERVQUAL model, the development of this theory by Othman and Owen (2001), it was an outcome of an effort in order to achieve the implementation of a better quality of service measurement in the field of banking services and business on the basis of the principles of Islamic Sharia.

Osman and Owen (2001) model contribute by adding after one to five service quality dimensions, new dimension namely compliance which refers to “the ability to comply with the principles of Islamic law, and works by running the banking and economic or any other business and financial transaction just in accordance with the Sharia principles” (Ramdhani, Ramdhani, & Kurniati, 2011).

However, as to the traditional interpretation the quality definition’s refers to compliance with internal prescriptions and standard; then it was identified with suitability for use; in the most current interpretation of the word, quality means not just meeting/exceeding consumer or clients’ needs, rather than meeting/exceeding environmental, social expectation see Figure 3.3.

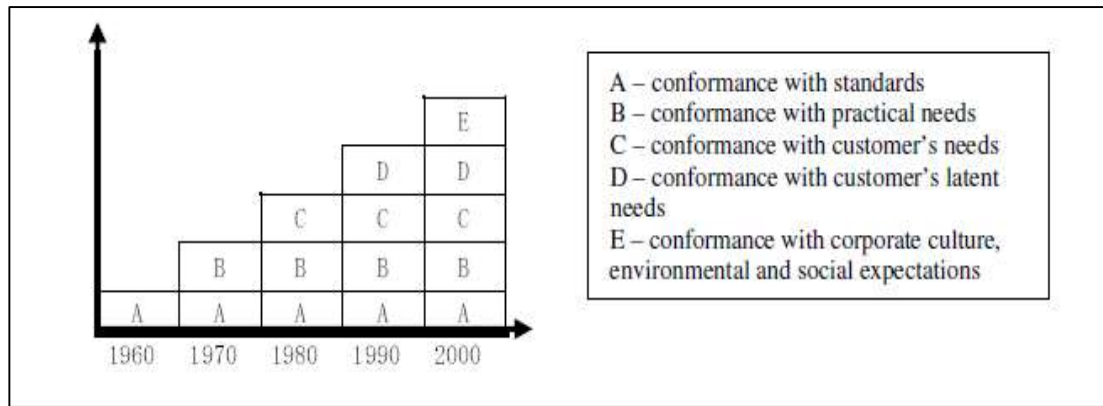


Figure 3.3

*The Interpretation Development of Quality*

Source: Becser, (2007); Kormos and Dörnyei,(2000)

On the other hand, the reason for the adoption of this model is that; it emphasizes the quality that is important for the client or the behavior intention of the individual's in general as well as their satisfaction. However, it is a vital and important part in meeting the customer's satisfactions and meeting their requirements, this feature totally compliant with Shariah law.

According to service quality theory; human satisfaction led by several factors, service quality factors are the most important factors for success in the banking sector, thus, some bank managers emphasize the various dimensions of service quality (Glaveli, Petridou, Liassides, & Spathis, 2006). According to Parasuraman, Valarie Zeithaml (1988), there are some general dimensions of service quality of any service provider, these dimensions can be summarized below:

- ✓ Assurance: “personnel’s ability to exhibit her/his communication skills and to deal with customers’ desires and needs in a confidential manner”.
- ✓ Reliability: “knowledgeable and polite personnel and their ability to win customers trust and confidence” and
- ✓ Tangibility: “physical facilities, tools, machines, personnel, materials and communication channels”. Along with



✓ Empathy, responsiveness.

However, any bank that fails to surpass customer expectations and meet customer satisfaction will not be able to compete with other banks. It is the most difficult challenge for a bank that its customers transfer their accounts to rival banks because of better services.

However, this research intends to evaluate six dimensions of service quality (CARTER model) according to the both Abdulqawi Othman and Owen (2001) models, each dimension of CARTER model have treated as independent variable.

As mentioned earlier chapter, this research aims and attempts to answer specific questions in regard to the Libyan financial institutions and banks “public sector” of the full-fledged adoption of the new method of the financial system IBS, hence the following questions are the cornerstone of this study:

- ✓ How does knowledge and awareness’ about the IBS could influence the customer’ or person's INT in Libyan banks and institutions?
- ✓ How does a CARTER model could influence the person’s INT in Libyan banks and institutions?
- ✓ How does RO can moderates the relationship between service quality dimensions (CARTER model) and the customer or the person’s INT in Libyan banks and institutions?
- ✓ How do GS can moderates the relationship between quality dimensions (CARTER model) and the customer or the person’s INT in Libyan banks and institutions?

However, according to Parasuraman, Zeithaml, and Leonard Berry (1985) they claimed that, there are several gaps in implementing the Service Quality Model as demonstrated in following Figure 3.4.

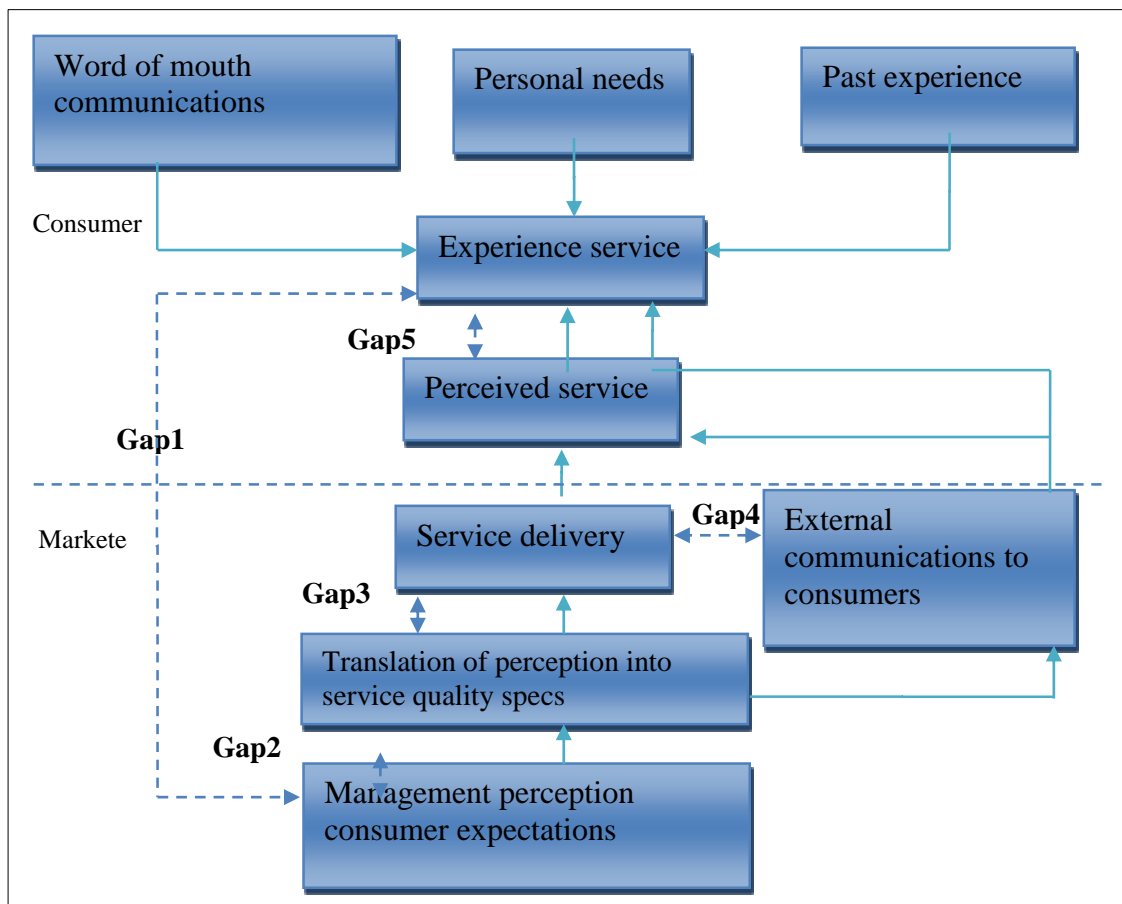


Figure 3.4  
*Service Quality Model Gaps*  
 Source: Parasuraman, Zeithaml, and Leonard Berry (1985)

Nevertheless, most of the researchers in this approach “service quality model” agreed with the following service quality’s definition quality which is “what is the customer says it is”, (Abdulqawi Othman & Owen, 2001). Therefore, it’s not an easy task for Shariah compliant financial method bankers’ to guarantee and provide services which are judged 100% satisfactory of 100% of their customers, or vice versa. In such a matter, to run such system and model, they would have to ask, observe, find out from the customers themselves and see whether they recommended the bank/organization

to others or not, and so on. Figure 3.5 displays the service quality (CARTER) model as it studied in prior study.

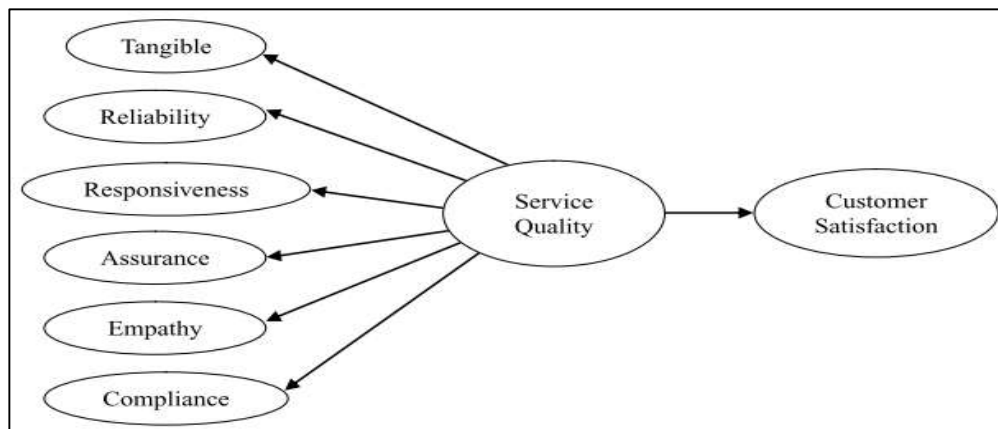


Figure 3.5  
*Service Quality (CARTER) Model*  
Source: Amin and Isa, (2008)

Therefore, focus on the customers is the key to adopt and deliver service quality or entire service quality management. However, Shariah Compliant Financial method bankers and financiers have to think about quality and service this way since it figures out what is the customers like and delivers it the same in every time; they will come back and tell others about bank services and successes.

However, Othman and Owen (2001), model was the an output of hard work in order to put into practice fit measurement of the quality of service of the banking services to comply with the principles of Islamic law. However, the CARTER model added a significant new factor to the five dimensions of service quality theory, which as mentioned earlier is referring to “the ability to comply with the principles of Islamic law, and working in regard with Islamic ethics and values” (Ramdhani *et al.*, 2011). However, there are several pronounced performance gaps when it comes to the reality of bank’s performance criteria included, Transparency, Innovation, Service and product quality as well as the customization (Ernst & Young Global Limited, 2012).

Below Figure 3.6 displays service quality gaps' model according to Othman and Owen (2001).

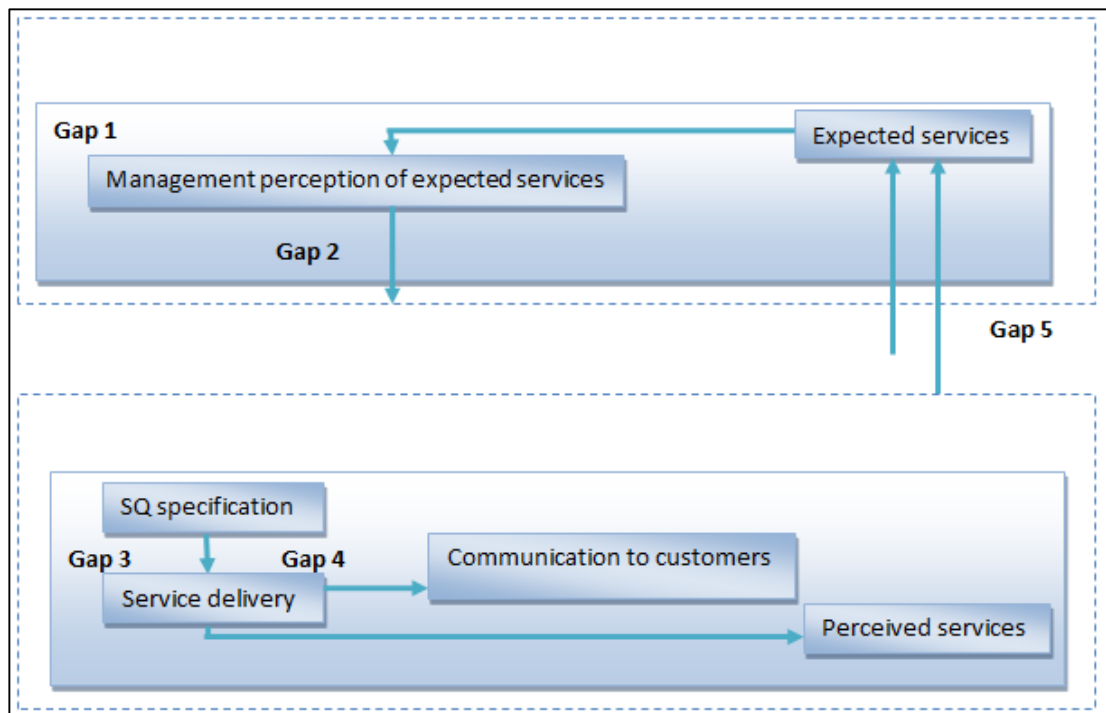


Figure 3.6  
*Service Quality Gaps' Model*  
 Source: Abdulqawi Othman and Owen, (2001)

According to Othman and Owen (2001) there are several gaps in addressing the service quality framework:

- 1- Customer expectations to management's perceptions.
- 2- The extent of the administration's perceptions towards service quality specifications.
- 3- The delivered services and Service quality specifications
- 4- A service which was delivered to external communications.
- 5- Perceived service gap.

Figure 3.7 demonstrates the multidimensional and a hierarchical model of mobile service quality.

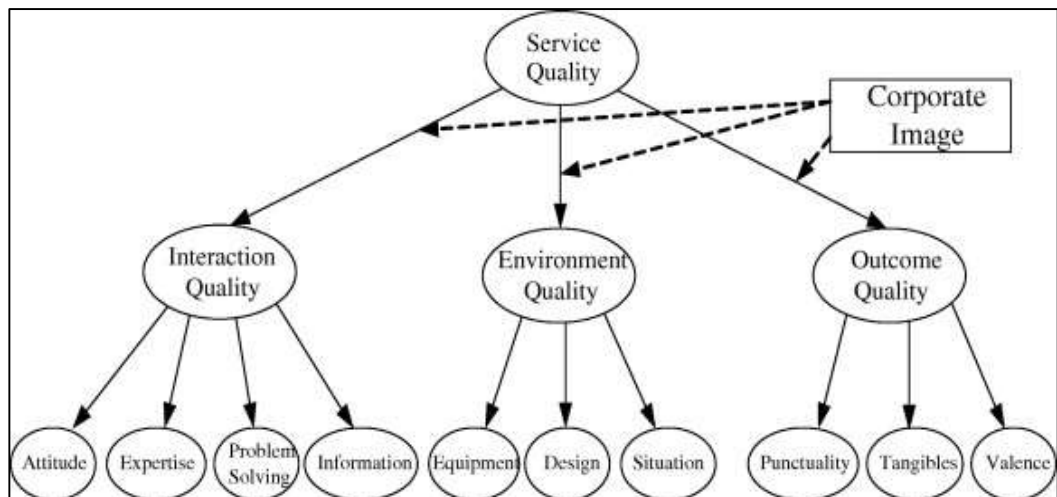


Figure 3.7

*A Multidimensional and Hierarchical Model of Mobile Service Quality*

Source: Zhang and Wang, (2009).

As stated earlier sections, the major purpose of this study was to examine the extent to which SERVQUAL (CARTER Model) and KU in effect on the INT regarding to the Libyan banks context. From this point of view, SERVQUAL (CARTER) Model, in conjunction with other discussed theories, prove its strengths to explain the relationships amongst the variables of the study. Therefore, based on the previous arguments, the CARTER Model used as underpinning theory of the current research, where, it consider to be reasonable in studying the SERVQUAL (CARTER) Model as a suitable underpinning theory underlying the variables of the study. However, the current research was underpinned by SERVQUAL (CARTER) Model in order to investigate the behavioral intentions to subscribe IBS in libyan banking context.

### **3.4 Behavior Intention and the Service Quality**

Behavioral intention has been defined by Swan and Trawick (1981), as an individual's planned future behavior. It has been associated with observed behavior by Ajzen and Fishbein (1977), which is grounded on three constructs, namely attitude, subjective norm and perceived behavioral control. However, the literature is rich of several studies and theories which have been addressing the behavior intention in different

aspects (Ajzen & Madden, 1986; Ajzen, 1991b; Ajzen,; Ajzen, Lcek & Fishbein's, 1992; Netemeyer & Bearden, 1992; Netemeyer & Ryn, 1991).

Nevertheless, in comparative study between these well pronounced theories “Ajzen and Fishbein's (1980) theory of reasoned action (Ajzen & Fishbein, 1977), Ajzen's (1985), theory of planned behavior (TPB) and the Miniard and Cohen (1983), model (MCM)”, a study conducted by Netemeyer, Andrews, and Durvasula, (1993), stated that, intention represents the direct antecedent to behavior the perceived behavioral control component of TPB.

However, as stated by the Theory of Reasoned Action Behavior (TRAB), the theory is a straight direction of the behavioral intention (Wungwanitchakorn, 2002). According to the TRA theory behavior intention is in turn preceded by two major determinants which are attitude and subjective norm (Ajzen, Lcek & Fishbein's, 1992). Taylor and Todd (1995), have studied the consumer adoption intentions for a new product; they offer an alteration of TRA by classifying attitudinal beliefs into relative advantage, compatibility and complexity, which were found to be related to attitude, which in turn is related to costumers' purchase intention.

According to ZeithamI *et al.*, (1996), they suggested a conceptual model discusses the behavioral intention of the customers as one of the service quality elements consequences. However, in their model they argue that the level of the customer and propose service quality elements as well as the behavioral intentions are related; therefore, services quality are contributing factors of whether a customer in the end will remains with or abandoned/defects from a company.

However, ZeithamI *et al.*, (1996), proposed that positive behavioral intentions are associated with several quality elements' of service. Moreover, the authors suggested

that more research on this regard need to be done specially; when it comes to the reliability and the measurement scale and items. However, in the assessing of the quality effects and customer satisfaction on consumer behavioral intentions in service environments Joseph Cronin, Brady, and Hult (2000), argued that, services quality elements showed a positive relation along with behavioral intentions either directly or through the mediating effect of satisfaction.

However, it's worthy to mention that customers usually puts more weight on the moderators factors and issues such "bank's reputation, good dealing of bank staff, convenient location and period of ATM work in selecting the bank" (Abdulqawi Othman & Owen, 2001). However, all of these elements give the impression to be basis probably influence the level of customer behavior intention in both systems either conventional or Islamic finance system banks/institutions.

The behavioral factors of service quality might mediate the relationship between service quality elements and the organization financial performance gains/losses from the retention or defection (Zeithaml, Parasuraman, & Leonard Berry, 1990; Parasuraman *et al.*, 1985; Ravichandran, 2010; Valarie, Leonard Berry, & Parasuraman., 1996). However, once the customers' perception of any service quality is high; the behavioral intentions will be high as well, which will make relationship with the organization stronger. On the other hand, alternatively when service quality evaluation is low, customers' behavioral intentions will be low as well and the corresponding relationship of the customers' towards the organization will be weak. Ajzen (2006), define the behavioral intention as "an indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior".

However, this intention of the behavioral assumed to be an indication of customers' behavior which can be as consequences of the attitude based behavioral. However, Valarie, Leonard Berry and Parasuraman (1996), recommended behavioral intentions to be indicators, which expected to show whether customers will continue with or defected from the firm. Hence, the concept of behavioral intention is a vital part of the model. However, Valarie *et al.*, (1996), recommended that favorable behavioral intentions included factors, for instance “telling positive things and proposing the services/products to others, paying the price premium to the company and expressing cognitive loyalty to the organization”. Where, cognitive loyalty has been operationalized as the service that first comes to one's mind when making a purchase decision and the service, which was a customer's first choice among alternatives (Bloemer, Ruyter, & Wetzels, 1998; Mark Pritchard, 1992).

The relationship between service quality dimensions and the multi-dimensional model of behavioral intention has not been adequately investigated in the service quality literature (Baker & Crompton, 2000; Bloemer *et al.*, 1998). However, according to Boulding, Kalra, Richard Staelin, and Zeithaml, (1993), they stated that, the overall service quality perception positively were found to be related to willingness to recommend and negatively linked to switching and complaining behavior. Contradictory results were reported in terms of the relationship between the overall service quality and behavioral intention (Bloemer *et al.*, 1998).

Ravichandran *et al.*, (2010), study the relationship between the service quality factors with behavioral intention and they found that, the three service quality dimensions' empathy and responsiveness, tangibility are playing an significant role in predicting



customer behavioral intention. However, several studies indicated that, there is significant and non-significant relationship between the two variables.

Cronin and Taylor (1992), stated that there non-significant relationship, however, they investigate the relationships between service quality, customer satisfaction and purchase intentions and ultimately they reported that performance based measure of service quality might be developed means of measuring the service quality construct; where consumer satisfaction has a significant impact on purchase intentions, whereas service quality has less impact on purchase intentions than does consumer satisfaction.

Valarie *et al.*, (1996), in their study suggested a conceptual model; they stated that financial performance can be a consequence of service quality dimensions. However, Valarie *et al.*, (1996), suggested a model of the impact of service quality dimensions on particular behaviors which it indicates of whether customers will remain with or not with the company, however, the study findings expose differences in the nature of the quality intentions link across different dimensions of behavioral intentions.

Nevertheless, Boulding *et al.*, (1993), and Valarie *et al.*, (1996), reported that, there is a positive significant relationship between overall service quality and price sensitivity. However, research on the investigation of the relationship between both “overall service quality dimension or each of its factors separately” and the multi-dimension model of behavioral intentions is still limited (Valarie *et al.*, 1996). Although, there are several studies supported the model and concluded that there are positive relationship between the variables, but this positive relationship can be differ from fields and industries to another (Baker & Crompton, 2000; Bloemer *et al.*, 1998; Boulding *et al.*, 1993; Valarie *et al.*, 1996). Recently, Liu *et al.*, (2013), conducted a research to examine the effects between experiential marketing and service quality of

ecotourism and tourists' behavioral intentions, the study concluded that research in regards to service quality by using another service quality scale to examine whether or not is needed.

As a matter of fact, these suggestions left the door opened and have generated a new call for research. Nonetheless, still there is very little empirical research demonstrating the importance of service quality dimensions in determining the behavior intention of customers (Baker & Crompton, 2000; Bloemer *et al.*, 1998). However, the causal relationship between service quality and behavior intention is still an area under discussion of great academic debated and no consensus has been reached (Joseph Cronin *et al.*, 2000; Theodorakis & Alexandris, 2008).

Nonetheless, they are several studies that had identified several elements and dimensions which can determine customer behavior intentions' in the banking industry as well as other sectors in a variety of countries as it demonstrations in below Table 3.2.

Table 3.2  
*Summary of Several Studies in Regarding With Behaviour Intention*

<b>Name</b>	<b>Country</b>	<b>Area</b>	<b>Finding</b>
Jimenez and Martin, (2007)	Spanish	The purchase intention of foreign products: The role of firm's country-of-origin reputation, consumer ethnocentrism, animosity and trust	Significant (negative)
Wu and Liu, (2007)	U.S.A	The effects of trust and enjoyment on intention to play online games	Insignificant
Lee and Lin., (2005). (Lien, Wen, & Wu, 2011)	Taipei, Taiwan	Examine the relationship among e-service quality dimensions and overall service quality, customer satisfaction and purchase intentions.	Significant (positive)
ZeithamI <i>et al.</i> , (1996)	Chain	A random sample of customers in business customers of a computer manufacturer, as well as to end customers of a retail chain, automobile insurer, and life insurer.	Significant (positive)
Abdelghani Echchabi and Aziz, (2012)	Morocco	Study the determinants of the intention to adopt Islamic banking services in Morocco.	Significant
M. Amin & Nasharuddin, (2013)	Malaysia	Investigated the hospital service quality and its effect on patient satisfaction and behavioral intention.	Significant (positive)

Table 3.2 (Continued)

Boulding <i>et al.</i> , (1993)		A data obtained from laboratory experiment involving two simulated visits to a hotel. 107 business professionals, including managers and staff, located in a major metropolitan area.	Significant
Gottlieb <i>et al.</i> ,(2011)	Australia	Investigate the role of perceived trade show effectiveness on overall trade show service outcome, conceptualized as the intention to purchase a related product after, rather than during, a show.	Significant
Yavas <i>et al.</i> , (2004)	Germany	Investigate the nature of relationships between service quality, background characteristics, and satisfaction and selected behavioral outcomes by using retail banking.	Significant
Theodorakis <i>et al.</i> ,(2008)	Greece	The study Investigated and examined if service quality dimensions can predict spectators' behavioral intentions in the context of professional soccer.	Significant (negative)
Jaffar <i>et al.</i> , (2013a)	Malaysia		
Liu <i>et al.</i> , (2013)	Taiwan,	Service quality has a significant positive effect on tourists' behavioral intentions. Supported.	Significant (positive)

Therefore, based on the previous discussion, the following hypothesis was proposed to be empirically tested.

**Hypothesis 1: Overall service quality (CARTER model) will have a direct relationship with the intention to subscribe the Islamic banking system INT.**

Meanwhile, the following are the service quality dimension explanations:

### 3.4.1 Compliance

According to Owen, (2001), the compliance definition is the ability to be inaccomplish with Islamic Shariah and function under the main beliefs of the Islamic financial system as general (Othman *et al.*, 2001). Several studies have been conducted on the compliance assumption; the findings of this study revealed that, Islamic banks' customers highly value Shariah compliance in their banks; contrary to non-compliance with Shariah principles leads to disgruntled customers (Lee *et al.*, 2011). Accordingly, if that bank which is operating and comply with Islamic law "IBS" involved in repeated violations of that law, the customers will absolutely inclined to switch their subscriptions with these banks. Notwithstanding, the findings reported that, Shariah

compliance is not the only satisfaction yardstick for the IBS' customers; they furthermore expecting these banks should be convenient, technologically advanced and provide security of their capital (Lee *et al.*, 2011).

**Hypothesis 1a:** *Compliance will have a direct relationship with the intention to subscribe the Islamic banking system (INT).*

### **3.4.2 Assurance**

Parasuraman *et al.*, (1985) define assurance as “knowledge and courtesy of employees and their ability to inspire trust and confidence”. Further, the assurance of service provided refers to the friendly, polite staff, provision of financial advice, interior comfort, eases of access to account information and knowledgeable and experienced management team (Saghier & Nathan, 2013; Sadek *et al.*, 2010).

The assurance Service Quality refers to the company's employees. Are the employees skilled workers, which are able to gain the trust and confidence of the customers? If the customers are not comfortable with the employees, there is a rather large chance that the customers will not return to do further business with the company (Downwindz, 2010).

**Hypothesis 1b:** *Assurance will have a direct relationship with the intention to subscribe the Islamic banking system (INT).*

### **3.4.3 Reliability**

The reliability service quality dimension refers to how the company is performing and completing their promised service, quality and accuracy within a given set requirements between the company and the customer. Reliability is one of most important service quality dimensions, where it is an important first hand impression,

customers always needed to be highly aware whether there the bank or particular organization “supplier” will steadfast and fulfill the set requirements with satisfaction (Downwindz, 2010). Reliability depends on handling customers' service problems; performing services right the first time; provide services at the promised time and maintaining error-free record. Akhtar and Zaheer, (2014), reported that, the basic principles of transparency, justice as well as not dealing with interest are very important criteria for the Islamic banks to be reliable. Furthermore, reliability is considered to be as the most important factor in conventional service (Parasuraman & Zeithaml, 1988), it is in reality consists of accurate order fulfillment; accurate record; accurate quote; accurate in billing; accurate calculation of commissions; keep services promise. Actually, reliability is very important factor in the banking services (Yang *et al.*, 2004; Saghier & Nathan, 2013).

**Hypothesis 1c:** *Reliability will have a direct relationship with the intention to subscribe the Islamic banking system (INT).*

#### **3.4.4 Tangibility**

Tangibles of service (services quality) in the banking sector comprise of the surrounding conditions such as temperature, ventilation, noise and odor prevailing in the bank building and the extent of the physical layout of the equipment. Other equipment to be convenient for the customers to do things with the bank's employees such as visually attractive signs, symbols, billboards, brochures other in the bank also considered to be tangible services. Furthermore, the bank's employees who have a professional and neat appearance and visually appealing materials as well as associated facilities and other services (Alamgir, 2003).

The tangibility can be the appearance of physical facilities, equipment, workers/staff, and written equipment's (Parasuraman *et al.*, 1985). Whereas, Ananth, Ramesh, and Prabakaran, (2011) defined the tangibility as the modern looking equipment, physical facility, employees are well dressed and materials are visually appealing.

**Hypothesis 1d:** *Tangibles will have a direct relationship with the intention to subscribe the Islamic banking system (INT).*

### **3.4.5 Empathy**

The empathy Service Quality Dimension refers to how the company cares and gives absolute individualized attention to their customers, with the intention of making them feeling extra valued and special. The fifth dimension is actually combining the second, third and fourth dimension to a higher level, even though really cannot be compared as individuals. If customers feel they get individualized and quality attention, there is a very big chance that they will return to the company and perpetuate business there again (Downwindz, 2010).

Parasuraman *et al.*, (1985) defined empathy as the caring and individual attention the firm provides its customers. It could be in the forms of giving customers individual and more attention as well as the employees who understand the needs of their customers and convenience business hours. Ananth *et al.* (2011), referred to empathy in their study on private sector banks as giving individual attention; convenient operating hours; giving personal attention; best interest at heart and understand the customer's specific needs (Saghier & Nathan, 2013).

**Hypothesis 1e:** *Empathy will have a direct relationship with the intention to subscribe the Islamic banking system (INT).*

### **3.4.6 Responsiveness**

The responsiveness, service quality dimension refer to the willingness of the company to help in providing its customers with good, quality and fast service. This is also a very important dimension, for every customer feels more valued if they get the best possible quality in the service delivery (Downwindz, 2010). Responsiveness defined as the willingness or readiness of employees to provide service. It involves timeliness of services (Parasuraman *et al.*, 1985). It is also involved understanding wants and needs of the customers, individual attention given by the personnel, convenient operating hours and at the transaction (Kumar *et al.*, 2009; Saghier & Nathan, 2013).

**Hypothesis 1f: *Responsiveness will have a direct relationship with the intention to subscribe the Islamic banking system (INT).***

However, on the basis of a literature review of the both SERVQUAL and CARTER Models, several studies used in several sectors with different methodology with same the goal, which aims to study the behavioural intention of customers or their satisfaction of services provided, some of the service quality elements were noted to have been examined. Specifically, the SERVQUAL critical factors that have been extensively examined, to determine the impact of behavioural intention of customers, are listed in Table 3.3.

Table 3.3

Summary of Several Studies used the SERVQUAL (CARTER) Models

Researcher	Service Quality Model	Statistical Technique	Dimension Used						Result
			C	A	R	T	E	R	
1. <b>Fornell (1992, 1996) in Jhonson et. Al., (2000), The ACSI (2004)</b>	SERVQUAL	Structural Equation Model (SEM)	No	Yes	Yes	Yes	Yes	Yes	The satisfaction of employee will provide a quality service will encourage employee loyalty, both internal (employees), and eventually will encourage the creation of an external service which then determines external customer satisfaction.
2. <b>Othman &amp; Owen, (2001).</b>	CARTER model	Factor Analysis	Yes	Yes	Yes	Yes	Yes	Yes	It is important for banks to apply the Islamic-based customer service quality programs in order to improve the way of providing services and products to our customers, therefore Othman added dimension of Compliance (ability to apply the principles of shariah) to complement previous service dimensions (SERVQUAL).
3. <b>Chan, et. al., (2003)</b>	SERVQUAL	Structural Equation Model (SEM)	No	Yes	Yes	Yes	Yes	Yes	The HKCSI, inspired by the similar efforts made in Sweden and the USA (Fornell, 1992; Fornell <i>et al.</i> , 1996), aims towards that objective. As the quality of business activities can be best measured, and in fact must be measured from the consumer's perspective, the HKCSI is a new type of consumer-oriented economic performance indicator representing the quality of products-commodities and services-sold in Hong Kong as evaluated by Hong Kong consumers.
4. <b>Irawan (2003) and Swa, (2005)</b>	SERVQUAL	Regression logistics	No	Yes	Yes	Yes	Yes	Yes	Total Satisfaction Score/ TSS is a cumulative of satisfaction with the quality satisfaction Score/ QSS and satisfaction with its value (Value Satisfaction Score/VSS).
5. <b>Mangku Rasywal, (2009)</b>	CARTER	Classic assumption test (multi-collinearity and auto correlation)	Yes	Yes	Yes	Yes	Yes	Yes	Based on the test-F with the F-Test for significant in Simple Linear Regression found a significant difference simultaneously from all six dimensions of service quality (Quality Services) of total satisfaction (Overall Satisfactions).



Table 3.3 (Continued)

6.	(Ramdhani et al., 2011)	SERVQUAL & CARTER	Structural Equation Model (SEM)	Yes	Yes	Yes	Yes	Yes	Yes	According to researchers, they found that all of the tested dimensions of the Service Quality have a significant impact on customer satisfaction. These dimensions found to be big supportive of the structure of the SERVQUAL for banks based on shariah compliance, which is namely, empathy, reliability, responsiveness, compliance and tangible. However, the lowest positive relationship dimension of the service quality was the tangible.
7.	Gan <i>et al.</i> , (2011)	SERVQUAL		No	Yes	Yes	Yes	Yes	Yes	Results indicated that service quality has the most influence on bank customers' satisfaction compared to value and corporate image. The moderating effect of value on the relationship between service quality and customer satisfaction were supported , as well as moderating effect of corporate image on the relationship among service quality dimensions service quality. Demographic variables (age, income, and occupation) also significant in explaining bank customers' satisfaction in the New Zealand banking sector.
8.	Osman, Ali , Zainuddin, & R, (2009)	SERVQUAL & CARTER		Yes	Yes	Yes	Yes	Yes	Yes	Compliance is the only significant attributes that contribute to the criteria for choosing financial institution that offers Islamic product and services in the market, where, reliability was ranked to be second, tangibles was ranked third, than responsiveness were ranked fourth, assurance was ranked fifth and finally, Empathy was ranked the least important Attribute. Also and based on the fact that compliance to Islamic principles is perceived as the most significant criteria. The study noted that religious' plays in important roll with the Malaysian people. Finally, in order to compare the service quality between the full-pledged IFIs and the conventional banks offering Islamic products and services, the result has shown that the relative importance of each selection criteria which adopted from CARTER model are differ from one bank to another depending on the type of institution (fully pledged Islamic bank or conventional bank offers an Islamic window). The findings also show that Bank Islam Malaysia Berhad (BIMB) was ranked top under the compliant attribute. It is not surprising

Table 3.3 (Continued)

										as the bank carries the word 'Islam 'as such, it is expected to perform and operating fully under Islamic principles.
<b>9. Othman &amp; Owen(2001)</b>	SERVQUAL & CARTER		Yes	Yes	Yes	Yes	Yes	Yes	Yes	
<b>10. (AbdulQawi Othman &amp; Owen, 2001)</b>	SERVQUAL & CARTER		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Findings suggest that the CARTER model is multidimensional and provides different implications for both managers and academic researchers. For instance, the managers should be aware of religious factors which loaded first and rated the highest important in the scale and improve ways of providing products and service to customers.
<b>11. Ramdhani, Ramdhani, &amp; Kurniati, (2011)</b>	SERVQUAL & CARTER		Yes	Yes	Yes	Yes	Yes	Yes	Yes	The results showed that both model are built based on theoretical studies. The both models' dimensions which consist of compliance, assurance, reliability, tangible, empathy, and responsiveness, showed positive relationship effect to customer satisfaction, which consists of availability of service, responsiveness, professionalism, speed of transaction and completeness.
<b>12. Amin &amp; Isa, (2008)</b>	SERVQUAL	Structural Equation Model (SEM)	No	Yes	Yes	Yes	Yes	Yes	Yes	Results showed that the proportion of Malaysian Muslims' awareness of the Islamic banking products and services were high compared to non-Muslim customers. The majority of the Islamic banking customers were satisfied with the overall service quality provided by their banks. The findings suggest that the standard model of Islamic banking service quality dimensions should consist of the six dimensions and good determinants of satisfaction. The relationship between service quality and customer satisfaction was significant. Further research, study need to increase the number of banks involved in the future research study, the number of respondents, and the research should represent the whole Malaysia.
<b>13. Abedniya &amp; Zaeim, (2011)</b>	SERVQUAL & CARTER	Structural Equation Modeling (SEM)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	The study findings indicate the gap between customer expectation and perception concerning service quality dimension base on

Table 3.3 (Continued)								CARTER instrument. By measuring this gap they can find the level of customers' perceive service quality.	
<b>14. Shafie, Azmi, &amp; Haron, (2004)</b>	SERVQUAL & CARTER		Yes	Yes	Yes	Yes	Yes	Yes	The findings prove that the CARTER model is a valid appliance for measuring service quality in the Islamic banking industry. Future research – can be carried out to ascertain how quality relates to the Islamic banking industry and who should be responsible for implementing service quality in Islamic banks as Board of Director, General Manager, mid management or all of them.
<b>15. Arasli, Katircioglu, &amp; Mehtap-Smadi, (2005)</b>	SERVQUAL	SPSS packaged	No	Yes	Yes	Yes	Yes	Yes	The study results indicate that the expectations of bank customers in both areas were not met and largest gap found in the empathy dimension. However, assurance dimensions had the largest weight on customers' satisfaction in both areas of Cyprus had a positive effect on their word of mouth.

### 3.5 Knowledge and Awareness on Islamic Banking System (KU)

Awareness is defined as having or showing understanding, perception or knowledge of a particular or general situation or reality. Whereas, knowledge according to Wirtz and Mattila (2003), and as stated by Jaffar and Musa (2013), is defined as the reality or condition of knowing something with familiarity gained through experience or education.

There are inconsistencies regarding to the findings regarding the knowledge and awareness of the customers. Abdullah, Sidek, and Adnan, (2012), investigated the awareness to enhance the level knowledge regardless of age and level of education amongst non-Muslims on Islamic banking concept and operations. A positive relationship have been reported regards to the Knowledge and understanding on IBS and customers perception towards Islamic banking products and service in Malaysia (Abdullah *et al.*, 2012). Besides, there are several reference regards to the lack of understanding of IBS methods at the commercial level. These references suggest that this variable should be examined (Sol, 2007). The understanding of IBS is a vital from a financial stability perspective (Sol, 2007). However, for the purpose of more details regarding to inconsistencies regarding to the findings regarding the knowledge the following Table 3.4 has been created, which summarized several studies in regards to knowledge and awareness of Islamic banking system as follows:

Table 3.4  
*Summary of Several Studies in Regards to Knowledge and Awareness of Islamic Banking System*

<b>Name</b>	<b>Country</b>	<b>Area</b>	<b>Finding</b>
Abdullah, Sidek, and Adnan, (2012)	Malaysia	Investigate the awareness to enhance the level knowledge regardless of age and level of education amongst non-Muslims on Islamic banking concept and operations.	Significant (positive)
Yang and Farn (2009)	Taiwan	Investigate an employee's tacit knowledge sharing and behavior within a workgroup.	Significant (positive)

Table 3.4 (Continued)

Naser, Jamal, & Al-Khatib, (1999)	Jordan	The study investigated the customer satisfaction and preferences in Jordan Islamic banking sector	Not Significant
Yavas <i>et al.</i> , (2004)	Germany	Investigate the nature of relationships between service quality, background characteristics, and satisfaction and selected behavioral outcomes by using retail banking.	Significant (positive)
Jaffar and Musa, (2013a)	Malaysia	Investigate the determinants of attitude towards Islamic financing among halal certified MICRO and SMEs.	Significant
Wirtz and Mattila, (2003)	Singapore	The study examined the relative influence of subjective and objective knowledge on remaining loyal to the chosen provider services.	Significant

However, the nature of relationships between service quality, background characteristics, and satisfaction and selected behavioral outcomes by using retail banking reported to be significant positive (Yavas *et al.*, 2004).

However, in this research the level of consumer knowledge, awareness and understanding of IBS in terms of its existence, “differences with conventional financing” will be examined whether to have direct influence on customer perception and expectation?, as well as the indirect and the direct influence of knowledge and awareness towards Islamic finance satisfaction and the INT.

Therefore, based on the previous discussion the following hypothesis was proposed to be empirically tested:

***Hypothesis 2: knowledge and Awareness on the Islamic banking System (KU) will have a direct relationship with the intention to subscribe the Islamic banking System (INT).***

### **3.6 Moderator Variables**

Following section discusses the moderating effects and their relationship between SERVQUAL (CARTER) Model, knowledge and awareness about the Islamic banking system and the behavioral intentions to subscribe the Islamic banking system.

### **3.6.1 The Relationship between Government Support and Behavioral Intentions**

Mahul and Stutley (2010), defined the government support as the market and regulatory impediments which are in many cases used as invoked to justify public intervention in the provision of any fresh emerging business or industry, which need to be identifying and address by the government support of its impediments to help the industry in order to complement the risk management of the their business activities together with the effective cost of the fiscal matters for example the corporation's insurance and etc.

Offering government's support for certain industry is one of any government's overall policies; however, this might require adjusting or even setting up new regulations to the market. In the other hand, Triandis (1979), defined the government support as facilitation of the condition which translates into how available the resources which are needed for the behavior are to be carried out. Nor, Bin, Rafi, and Yaacob, (2010) stated that, business support can be divided into two categories:

- I. Government or organization can financing "financial support" the institution as a sort of support (e.g. Property loan, working capital and grant, etc.) and;
- II. The nonfinancial support such as courses, advisory, management, distribution, research and development (Yusoff & Yaacob, 2010).

The variables for government business support were measured in the perspective of the extent of Shariah compliant financial institutions support business management, encourage business innovation and expansion and improve business efficiency (Gait & Worthington, 2009). However, government use to has a significant influence on the development of any emerging financial business or service e.g. Shariah compliant banking products (Hamid, 2006).

This study hypothesizes that government support of Shariah compliant financial banks as well as the agencies which offer or provide IBS products and services will moderate the relationship of SERVQUAL (CARTER) dimensions the level of the users of IBS productions satisfaction which will shed light on the intention to subscribe within the IBS as well. However, as suggested by Kaynak *et al.*, (2000) through a study in Bangladesh, financial institutions and banks can get government supervision so that they can serve the needs of consumers in a better way.

However, for more details the following Table 3.5 has created, which summarized several studies in regards to government support as follows:

Table 3.5  
*Summary of Several Studies Regards to Government Support*

<b>Name</b>	<b>Country</b>	<b>Area</b>	<b>Finding</b>
Amin, Rahman, Jr, and Hwa, (2011)	Malaysia	Investigates the effects of the attitude social influence; government support and pricing, on the intention to use Islamic personal financing.	Insignificant

However, according to Antonia *et al.*, (2009), economies may exhibit a competitive outcome in the global market in cases where government policies promote the local product brand. However, for instance, government policies facilitating the promotion of local product brand’s development and dynamic innovation provide firms with an environment characterized as competitive for survival. Both elements can impact employment and economic progress viability.

Gary and Knight (1999), stated that national governments are desirous of reducing imported products through their influence on consumer purchase behaviors and actual behaviors to purchase local products. Knight suggests that, “Consumers provide little consideration to the importance of a given product to the national manufacturing base”. Hence, education programmes should maximize consumers’ awareness of the importance of production.

However, in the context with Libya, without the cooperation between the government and the banking sector, low development of Islamic banking financial system industry will arise which will render them unable to tackle the challenges and the issues that are hindering local brand development (Numan, 2008). In addition, Kaynak *et al.*, (2000), revealed how companies in Bangladesh receive government supervision for them to serve the consumers' needs in a superior manner. Several studies have established a positive relationship of perceived behavioral control and purchase behavior (e.g. Margaret & Thompson, 2000; Antonia *et al.*, 2009; Marie *et al.*, 2009; & Morven *et al.*, 2007). On the basis of the above discussion, the following hypotheses are formulated:

***Hypothesis 3: Government support will moderate the relations between SERVQUAL dimension's (CARTER model) awareness and knowledge on the Islamic banking system and the intention to subscribe the Islamic Banking system (INT).***

### **3.6.2 The Relationship between Religious Obligation and Behavioral Intentions**

Religion obligation refers to the role of religion in affecting an individual's choice or activities (Amin *et al.*, 2011). by the reviews the related Islamic banking literature, it show big emphasized on the importance of the attitude towards Islamic banking or commitment in terms of the customers bank chosen (Jaffar & Musa, 2013). Haron, Ahmad, and Planisek, (1994), stated that the choice of an Islamic bank is based in part on a religious motivation; also they specified the key differences points of the patronage of IBS and conventional banks regards to the Muslims and non-Muslims in Malaysia. However, (Ennew, Wright, & Watkins, 1989; Erol & El-Bdour, 1989; Erol, Kaynak, & Radi, 1986), found that religious motivation factors was not the main reason for Muslims dealing with Islamic finance system. On the other hand, religious



obligation found to have an important role as it concluded in several studies (Amin *et al.*, 2011).

Essentially, religious obligation is very important element in Muslims life. Muslims have to follow the guidance of Allah almighty very precisely as mentioned in the Quran. Where, it has been stated in many places in Quran that, Muslims are led by full beliefs of Islam. This came as it has been revealed by Quran for example in the verse 85 Surah Al Imran:

"وَمَنْ يَبْتَغِ غَيْرَ الْإِسْلَامِ دِينًا فَلَنْ يُقْبَلَ مِنْهُ وَهُوَ فِي الْآخِرَةِ مِنَ الْخَاسِرِينَ"  
آل عمران 85

*“And whoever desires other than Islam as a religion - never will it be accepted from him, and he, in the Hereafter, will be among the losers”.*  
*Verse 85 Surah (Al Imran)*

Therefore, it is an obligation to the Muslims to follow the Islamic precepts as it is part of their practice of the Islamic teaching, which is represented in avoiding of the prohibitions contained in the Quran such as the dealing of usury.

However, measures of religious duty that involving perception to obedience with the basic of Shariah law and principles which is referred to the Riba (free interest), investment in Halal business and equal distribution of wealth (Butt *et al.*, 2011). This study suggests that the greater compliance with Shariah principle, the more favorable attitude is formed.

Amin, Rahman, and Hwa (2011) conducted study by using two full-fledged Shariha compliant banks in system in one of the well pronounced counties it terms of operating and deal with this financial system, they concluded that; more similar research is hoped to be conducted on the use of the emerging Islamic financial product. Other potential

determinants of the intention to use Islamic personal financing have to be considered (Amin *et al.*, 2011).

However, previous study emphasized on the need of study the on the culture moderation effect of (religious obligation) in the relationship between service quality and behavioral intention (Theodorakis & Alexandris, 2008; Yavas *et al.*, 2004), culture which can be explained here as the religious obligation culture and its effect.

However, for more details the following Table 3.6 has created, which summarized some studies in regards to the religion obligation as follows:

Table 3.6  
*Summary of Several Studies Regards to Religion Obligation*

<b>Name</b>	<b>Country</b>	<b>Area</b>	<b>Finding</b>
Yavas <i>et al.</i> , (2004)	Germany	Investigate the nature of relationships between service quality, background characteristics, and satisfaction and selected behavioral outcomes by using retail banking.	Significant
Amin <i>et al.</i> , (2011)	Malaysia	Investigates the effects of the attitude social influence; religious obligation and pricing, on the intention to use Islamic personal financing.	Insignificant

Mandatory forms of social responsibility refer to conduct that the Islamic finance system has to avoid, in its capacity as a representative institution that serves a collective Islamic religious obligation (Farook, 2007). As a matter of fact, these responsibilities if not carried out will mean that the IBS is not adhering to fundamental edicts of the Quran.

However, this form of social responsibility does not need a much expenditure of resources and is within the reach of all Islamic finance system regardless of their location or country of origin, legal form or size. This is because such mandatory forms of social responsibility are mostly prescriptions to avoid (for e.g. such as the Riba) rather than prescriptions to act. However, that does not necessarily mean that the IBS

does not have to implement policy and therefore disburse some resources to avoid these actions (Farook, 2007).

Therefore, based on the previous discussion, the following hypothesis was proposed to be empirically tested.

*Hypothesis 4: Religious obligation will moderate the relationship between SERVQUAL dimension's (CARTER model), awareness and knowledge on the Islamic banking system (INT) and the intention to subscribe to the Shariah compliant financial system.*

### **3.7 Theoretical Framework of the Study**

In this section, after reviewing the related literature and the theoretical gaps identified, the research framework of the current research study was designed and demonstrated in the following Figure 3.8, which has been used in this research in order to test the hypotheses postulated.

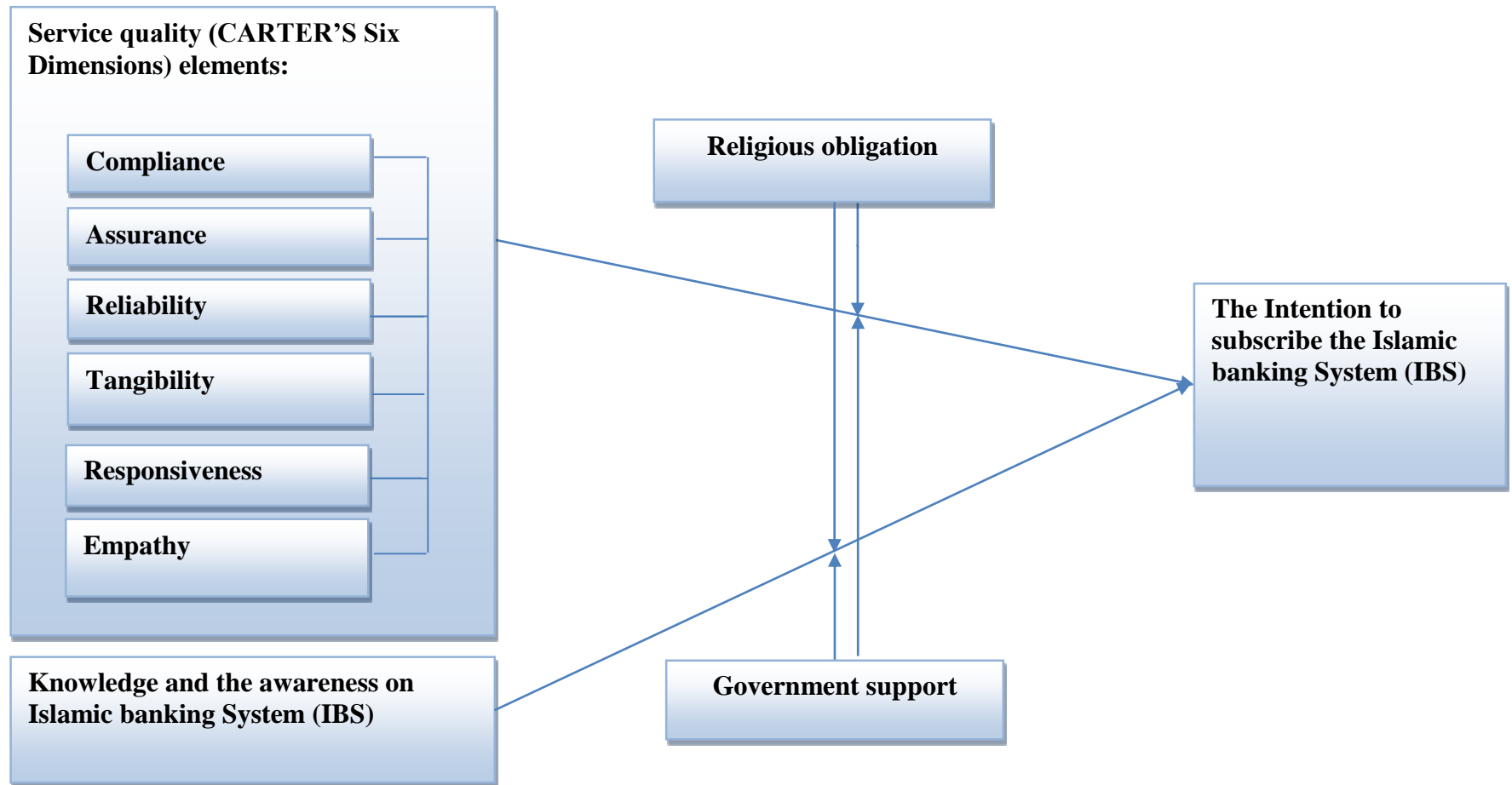


Figure 3.8  
*Research Framework*

Based on what have been discussed, this research addresses the following assumptions which have been formulated as study's hypothesis:

### **3.8 Hypothesis Summary**

Based on a theoretical point of view the academics and researchers had established the conceptual definition of service quality as well the customer satisfaction. Hence, this study is based on these developed sets of hypothesis which summarized and stated below:

***Hypothesis 1:*** Service quality (CARTER model) has a direct relationship with the intention to subscribe the Islamic banking system (INT).

***Hypothesis 2:*** Knowledge and awareness on the Islamic banking system (KU) have a direct relationship with the intention to subscribe the Islamic banking system (INT).

***Hypothesis 3:*** Government support (GS) moderates the relations between SERVQUAL dimension's (CARTER model) and the intention to subscribe the Islamic banking system (INT).

***Hypothesis 4:*** Government support (GS) moderates the relations between knowledge and awareness of the Islamic banking system and the intention to subscribe the Islamic banking system (INT).

***Hypothesis 5:*** Religious obligation (RO) moderates the relationship between SERVQUAL dimension's (CARTER model) and the intention to subscribe to the Islamic banking System (INT).

***Hypothesis 6:*** Religious obligation (RO) moderates the relationship between awareness and knowledge of the Islamic banking system and the intention to subscribe to the Islamic banking system (INT).

For the purpose of providing with more details and explanations regarding to materials and articles have been used in the current research the following Table 3.7 was created, the table displays the summary of the main related articles and key resources as well as critical factors that commonly used by several researchers regarding to Islamic banking system and these which have been used in this research as follows:

Table 3.7

*Summaries of Main Articles Used in the Research*

<b>Authors' Details:</b>	<b>Country</b>	<b>Methodology and the area model used</b>	<b>Theory/Variables used</b>	<b>Findings &amp; Future studies ,recommendation</b>
<b>Karim, (2012)</b>	Pakistan	The study focus on evaluating the level of consumer satisfaction and awareness which related to one of the Islamic banks of Pakistan (Al Meezan Bank).	IV- Customer Satisfaction. IV- Product/Service Quality. IV- Brand/ Firm Association. IV- Relative Cost. IV- New Produce Activity. IV- Personnel Capability & Performance. MV- Current Performance. DV- Long Term Profits	The majority of consumers dealing with Islamic banks because of the religious reasons as the banks abides with Shariah principles. Whereas, conventional reasons for dealing with a bank like profit gathered little support from respondents. Consumers have trust in their Islamic banks regarding their money utilization and satisfaction of their religious concerns.
<b>Hidayat &amp; Abduh, (2012)</b>	Bahrain	Eight Islamic banks in Bahrain, which had completely reported financial statements from 2005-2010 periods, were used as study samples'. Bank scope Bureu van Dijk database, in 2011, in Bahrain. Panel regression used for analysing the data.	DV1- ROA. DV2- ROE. IVs- the bank-specific explanatory variables , Bank size, Leverage, Loans, Short-term funding, Overhead expenses, Ownership (equity). GDP per capita	Result shows that LTA, LEQ, and LOHE are significant bank specific factors to influence Islamic bank performance in Bahrain. In addition, there is no significant impact of financial crisis upon the financial performance during the crisis period; however, it does affect the financial performance of Bahrain Islamic banking industry after the crisis period. Future researches suggestions to apply similar study to other countries which have the Islamic banking industry and incorporate, also the analysis on conventional banking so that we can compare the impact of crisis to both types of bank.
<b>Abdul Aziz Abdullah, Rokiah Sidek, (2012)</b>	Malaysia	Examines non-Muslim customers' perception of Islamic banking products and services in Malaysia. A Sample of 152 was respondents.	DV- Banking products and services. IV1- Respondent background. Iv2- Knowledge and understanding on Islamic banking. IV3- Bank selection criteria. IV4- Views and general perception of customers.	Findings- The study result of the study showed that Islamic banking services are making headway among non-Muslims in Kuala Lumpur. Despite this positive trend, more efforts need to be energized to enhance the level of understanding for non-Muslim customers on the Islamic banking concepts. Future research- Awareness as well as to enhance the level knowledge regardless of age and level of education amongst non-Muslims on Islamic banking concept and operations. More studies should be undertaken as comprehensive manner to analyze non-Muslim perception towards Islamic banking since this study only concentrated in Kuala Lumpur, Malaysia with a limited number of respondents.

Table 3.7 (Continued)

<b>Muhamat, Jaafar, and Azizan, (2011)</b>	Malaysia	Out of 100 respondents who were mainly banks' clients, only 60 questionnaires were used. Islamic banks in Malaysia and the keen of using Arabic language terminology in Islamic banks.	All factors of the TPB	Respondents agree that t Arabic terminology gives competitive edge to the Islamic banks but at the same time they indicate that the catchy Arabic name will give them difficulty in gaining fast information about and comprehension of the product. As a result, it signifies a need from the Islamic banking side to manage this issue, since the non-Muslims are majority clients of the industry in Malaysia
<b>Butt et al., (2011)</b>	Pakistan	Out of 900 random sampling, 20 branches of fully-fledged of the Islamic finance system and conventional banks and Islamic bank windows in Lahore were selected. The number of responses received 109.	<p>DV- users and non-users of Islamic banks.</p> <p>IVs- Level of agreement about the extent of services offered by Islamic banks importance that users and non-users attach to services offered by Islamic banks.</p> <p>Level of agreement that users and non-users have about the extent to which Islamic banks are following Islamic principles.</p> <p>Level of importance that users and non-users attach to following of Islamic principles by Islamic banks.</p> <p>Level of agreement that users and non-users have towards Islamic banks' branch locations and network.</p> <p>Level of importance that users and non-users attach to Islamic banks' branch location and a network.</p> <p>Level of agreement about the presence of religious rulings against Islamic banks between users and non-users.</p>	<p>The study found that most users and non-users perceive Riba-free banking to be the primary basis for Islamic banks. Users and non-users both are felt Islamic banks to be moderately following Islamic principles. Whereas, considering the barriers faced by non-users of Islamic banks, it was identified that the perception that Islamic banks do not follow Islamic principles, constituted a major barrier for non-users when selecting Islamic banks.</p> <p>Future research can separate users of Islamic banks only so that analysis can be performed on three different groups of people, those who use Islamic banks only, those who use conventional banks only, and those who use both. A further research can be conducted into how the perceptions of customers vary across various Islamic banks in Pakistan.</p>



Table 3.7 (Continued)

<b>Amin, Rahman, Jr, and Hwa, (2011)</b>	Malaysia	The study comprised customers of two fully fledged Malaysian Islamic Banks, BIMB and BMMB branches in the city of Labuan, East Malaysia. SPSS version 16.0. Factor analysis, Cronbach's alpha, Correlation, was performed. Comprised of 150 customers of two fully fledged Islamic banks in Malaysia used in this study.	TRA theory. IVs- Attitude, Social influence, Religious obligation, Government support Pricing of Islamic personal financing DV- the use of Islamic personal financing.	This study indicates that Islamic banks have more than one competitive advantage, which is unique to their customers, and two important determinants of the intention to use Islamic personal financing are attitude and social influence. The study, which applies the conventional theory of TRA to an Islamic banking perspective, is appropriate. The findings are consistent with previous studies (Taib <i>et al.</i> , 2008; Ramayah and Suki, 2006; Yuserrie <i>et al.</i> , 2004), for instance, the clients' attitudes and social influence are both found to be significant antecedents of the intention to use Islamic personal financing. Future study should consider other potential factors of the intention to use Islamic personal financing such as "riskiness", "rewards", "Islamic banks' performance", "substitution effect between Islamic and non-Islamic financing products" and the "experience of Islamic personal financing bank customers".
<b>Rashid and Hassan , (2009)</b>	Bangladesh	About 371 respondents associated with 5 Islamic banks in Dhaka City. The main scope was Islamic banks in Dhaka City. An SPSS Statistic tool used for analysing the data.	DV- Overall Satisfaction. IVs- Corporate Efficiency Compliance Convenience Core Banking Confidence Cost-Benefit	Findings indicated that, leaders running Islamic banks in Bangladesh must put higher importance to Non-Islamic issues such as Corporate Efficiency and Core-Banking Services rather than only religion as their backdrop banner.
<b>Zainol, Shaari , &amp; Ali , (2008)</b>		Research population consists of all officers in two Islamic banks as well as officers in conventional banks offering Islamic banking products and services (Islamic window). The banks include Bank Islam and all conventional banks offering Islamic banking products and services. A simple random sampling; 200 questionnaires were used. Statistical	DV- Islamic Bankers Direct and indirect Behavioral Beliefs (BB). Outcome Evaluations (OE) Normative Beliefs (NB), Motivation to Comply (MC) Control Beliefs (CB) and Control Power (CP). Perceptions, Products and Services, Training,	Bankers in Islamic banks have more positive perceptions on the above issues. Few of the bankers possessed a relevant academic background or relevant experience in Islamic banking before embarking on this career. The bankers also claimed that they had very limited knowledge in this area prior to working with the banks; thus, the issue of the availability of well-trained and skilled employees must be addressed critically by the government, industry players and educationists for the sustainable growth of Islamic banking in Malaysia, and to meet the target set for the year 2010.

			Packages for Social Science (SPSS) 12.0 used.		The study suggests that it should be expanded further to gauge the perceptions of employees in Islamic banks as well as in conventional banks throughout Malaysia. It is hoped that the research will further assess the perceptions of employees in depth.
<b>Gait and Worthington, (2008)</b>	Several Arabic and Non-Arabic countries	Attitudes towards Islamic finance. (Literature review paper)	IVs- Business firm attitudes. Financial institution attitudes. Individual consumer attitudes. Financial institutions' attitudes. DV- Islamic finance		Religious conviction is a key factor in the use of Islamic finance; consumers also identify bank reputation, service quality and pricing as being of relevance. When selecting a financial institution's products and services, business firms usually employ criteria that are more conventional, such as the cost of finance, in their decision making. There is also interest among financial institutions in supplying Islamic financial products and services, but this is mitigated by complications with firm management and a lack of familiarity with business conditions. The concept of risk sharing with borrowers serves as a substantial barrier to most financial institutions engaging in Islamic methods of finance. Frequent reference to a lack of understanding of Islamic finance methods, particularly at the commercial level, suggests that this should be examined more carefully. Findings: Islamic and financial reputation and SERVQUAL offered by the bank are predominantly attracting the customer's behaviour to subscribe IBS Islamic banks
<b>Dusuki &amp; Abdullah (2007)</b>	Malaysia	Investigates Islamic banking patronage factors from the customers' perspectives.	All elements of the TPB. Behavior intention, attitude, subjective norms and perceived behavior control.		

### **3.9 Chapter Summary**

Based on the above review of the literature, it has become an obvious that the relationship between SERVQUAL/CARTER models and behavior intention seems to be inconsistent in many cases. The group incorporates a more comprehensive view of the relationships between service quality and customer's satisfactions related variables. Based on the argument that customer's satisfactions can be better achieved through different types of service quality dimensions and not all these elements have the same effects on the customer's satisfactions (Ramdhani *et al.*, 2011). Although, Othman and Owen (2002) stated that CARTER model is a valid model to measure customers' satisfactions, there is still a need to distinguish between SERVQUAL and CARTER model. Consequently, conducting a satisfaction customer's study in a given country may not be able to present general conclusions that can be accepted in another country.

As a result, based on forgoing analysis, several gaps need to be addressed; with regard to the local context (Libya), there are very limited studies limited themselves to the conventional bank's customers' satisfaction, and leave unanswered questions about the actual reason behind slow underway practices and effective use and adopting of IBS in the banking sector. More interestingly, there are some studies have articulated that there is a need to investigate the relationship between service quality and customers' satisfaction practices in developing countries (Gait, 2009).

In general, the relationship between service quality CARTER model and the behavioral intention to subscribe to the IBS is inconclusive; studies provide mixed results with regard to this relationship (Joseph Cronin *et al.*, 2000; Theodorakis & Alexandris, 2008).

Thus, this study might make a contribution by providing evidence of the actual relationship between service quality (CARTER model) and the Libyan behavioral intention to subscribe to the IBS in adopting of fully-fledged INT in real practicing with respect to Libyan context. By addressing these issues, this study can contribute to the knowledge by empirically demonstrating the benefits associated with linking of IBS to society welfare and how can such a system contribute in enhance human life fairly and equally. Finally, the present research examined the GS as well as the RO moderating effect between service quality dimensions CARTER model “tangibility, reliability, responsiveness, assurance, empathy and compliance” along with the KU.

## **CHAPTER FOUR**

### **RESEARCH METHODOLOGY**

#### **4.1 Introduction**

This chapter gives an explanation of the research design adopted in the current study, the sampling methods, the questionnaire structured, the pilot study result, data collection procedures, data analysis procedure data screening, and eventually the analysis of data procedures. Nevertheless, descriptive analysis of the constructs, test of response bias, data screenings, which consist of missing data, outliers, normality, linearity, homoscedasticity and reliability and validity tests were also conducted. In relation to that, this chapter outlines the Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA), the justification for using SEM, SEM procedures and Goodness of Fit Index (GOFI) to conclude the chapter concludes with the direct effect of the hypothesis.

#### **4.2 Research Design**

This current study has utilized a quantitative Method (techniques) where, the study designed to enhance primary data collection to determine the directions (trends) of answers outlined in the research questions. Also, this method appropriates in assisting most appropriately in drawing and achieving research objectives. The idea for using quantitative techniques was made an integral part of research methods in the 20th century. This technique was instrumental in helping researchers discovering verifiable results and realities in research findings (Perry *et al.*, 1999). Smith (1983) opined that even though quantitative research is associated with the laid down procedures and accepted parameters. On the other hand, the current research involves the measurement of service quality in banking, which requires a considerable percentage of a population

to be involved; hence, this activity might not be perfectly conducted using qualitative methods.

Moreover, the literature, evidently supports the conclusion that the appropriate strategy for understanding and measuring service quality in banking is quantitative approach using a survey questionnaire (Nantel & Hautes, 2000; Bahia & Nantel, 2000; Jabnoun & Al-Tamimi, 2003; Spathis, Petridou & Glaveli, 2004; Arasli, Katircioglu & Mehtap-Smadi, 2005; Glaveli *et al.*, 2006; Petridou, *et al.*, 2007; Guo, Duff & Hair, 2008; Elmayar, 2011; Joseph, Babin, & Anderson, 2009).

Alternatively, the qualitative research is linked to the constructivist approach, or doing research on its settings (In the environment where the object to researched resides/located), the naturalistic, the interpretative, humanism, and post-modern perspectives. In research mostly, it uses assumptions and abstractions from the real world to balance its findings with the empiric as a proof of knowledge (Blackburn, 1994).

Therefore, the philosophy of the research is vital in the process of investigation. To be able to explain the philosophy behind the existing research, it is important to highlight the foundations in key schools of thought in social science; the positivist and paradigm. In this study, the positive paradigm was mainly taken to examine several aspects. First of all, in social science research, positivists claim to be objective, and the presence of an applicable term. In relation to the current research, these trends and traits of positivist research are primary to the main objectives of this study. The researcher used some of the methods used by researchers in different countries, which meets the requirements and conditions in Libya.

Research is biased towards, and has qualities of a positivist tradition, is systematic with laid down methodological process (Koch & Harrington, 1998). This process takes into consideration a particular value that explains the concept of rationality, the ability to predict, objectivity and control (Streubert *et al.*, 1999). All these qualities are worthwhile and useful in the present study, because this study focuses on using tools that predict customer's behavior intention to subscribe to the Islamic banking system. Also, it is set out to draw hypotheses for testing, valuable in quantitative techniques criteria.

However, large sample from several settings are required to generalize the results to all bank customers. To achieve the desired goals and objectives, the level of objectivity and control are necessary in this research for various reasons. Firstly, to avoid prejudice by those customers who desire to bank and deal with those banks which offering the Islamic finance system products relating to the topic of the intention to subscribe the IBS and product's, based on available their opportunity. Secondly, provide numerical data, which can be analysed statistically without the researcher's manipulations; and lastly is that, the assessment criteria for all participants by the same instrument and under the same conditions.

Can and Reich (2007), outlined the importance of the fact that this approach offers the opportunity to source data and use various tools to measure numerical data. Considering the aims of the research, a positivist approach is thought to be more suitable for the current research. Furthermore, a positivist approach would enable a detailed comparison of the results of this study with those of other studies. This would have been more difficult using the interpretative approach.

For this research, it seems that the positivist approach meets the study objectives, which is implemented in Libya. This quantitative model is based on the positivism, with advocacy position of there is only one reality (objective reality), that are outside the human perceptions. From the standpoint and epistemological of knowledge, a researcher (observer) and the object of research investigating separate entities, in the sense that the researcher is able to study particular phenomena without being influenced, or vice versa. The quantitative investigations and research employing the empirical research in the context of dogma that all phenomena could be reduced to empirical indexes which represent the facts.

Thus, it includes research techniques of quantitative research in a highly structured protocol, randomization, and surveys administered whether (written or oral) with a limited set of predefined responses. Usually, the size of the sample that uses for quantitative research methodology is greater than that used for qualitative research.

Moreover, the degrees of external validity of the quantitative approach used to be higher compared to the qualitative approach, meaning that the results can be generalized, or extended to other situations (Saunders *et al.*, 2000). The primary data collected through the quantitative approach using a structured questionnaire design would be most suitable and convenient as soon as using SEM as the main technique of analysis (Hair *et al.*, 2010). Therefore, the researcher strongly believes that the quantitative research design is appropriate for this study.

### **4.3 Sampling Plan**

This section discusses the sampling plan employed to obtain the sample for the study. Therefore, the sampling methods discussed. Since the sampling method has been



decided, the sampling procedure, sample size, and sampling choice, location and unit highlighted.

Sampling methods and sampling size concerns are mostly complex and require careful considerations because the wrong sampling procedure could lead to research errors and biasness (Zikmund, 1997). According to Burns and Bush (2010), the sample size has an impact on how the sample findings accurately represent the population. It was supposed that any chosen sample size is not expected to be completely representative of the population from which it is drawn, therefore it is not expected that two samples drawn from the same population would be exactly alike. Accordingly, one would expect to see in the sample drawn from the population some sort of error to a certain degree, which can be referred to as a sampling error. Saunders, Lewis and Thornhill (2000), argue that the larger the sample is, the more likely that the generalisations are an accurate reflection of the population. There are also a number of factors that can affect the sample sizes such as time and money available for data collection (Hair, *et al.*, 2006), and the statistical analysis that the researcher intends to use (Saunders, Lewis & Thornhill 2000).

Generally, there is an agreement among the authors of statistical books that the larger sample size the more appropriate for factor analysis (Pallant, 2007). In this context, Hair (2003), proposed that any sample size of more than 100 is appropriate for factor analysis and also suggested that sample size should be five times the number of variables included in the questionnaire. There are ten variables used in the current research (10); therefore, any sample size greater than 50 ( $10 \times 5 = 50$ ) is appropriate (Hair, 2003). An important issue in the research is to determine the sampling procedure properly in order to collect the required data. Sampling is the procedure of selection of

individuals who will participate in the research to provide the required data. This sampling procedure calls for three dimensions (Koltar & Armstrong, 1996):

1. Sampling unit. This should answers: Who is to be surveyed?
2. Sample size. This should answers: How many people should be surveyed?
3. Sampling procedure. This should answers: How should the respondents be chosen?

However, fundamentally the sampling methods can be categorised into probability sampling and non-probability sampling (Parasuraman, 1991; Churchill, 1995; Malhorta, 1996; Craig & Donglas, 2005; Saunders, Lewis & Thornhill, 2007), each of which can be broken down into different sampling types:

1. Probability Sampling- Simple Random Sampling; Systematic Sampling; Stratified Random Sampling; Cluster Sampling; and Multi-Stage Sampling.
2. Non-Probability Sampling-Quota Sampling; Purposive or Judgemental Sampling; Snowball Sampling; Self Selection Sampling and Convenience Sampling (Berg, Sven, 2006).

However, Figure 4.1 demonstrates in further description and detail on the general research design and sampling plan used in the current research, including the sampling method, procedure, size, location, as well as the number of returned questionnaires and the timing of conducting the survey.

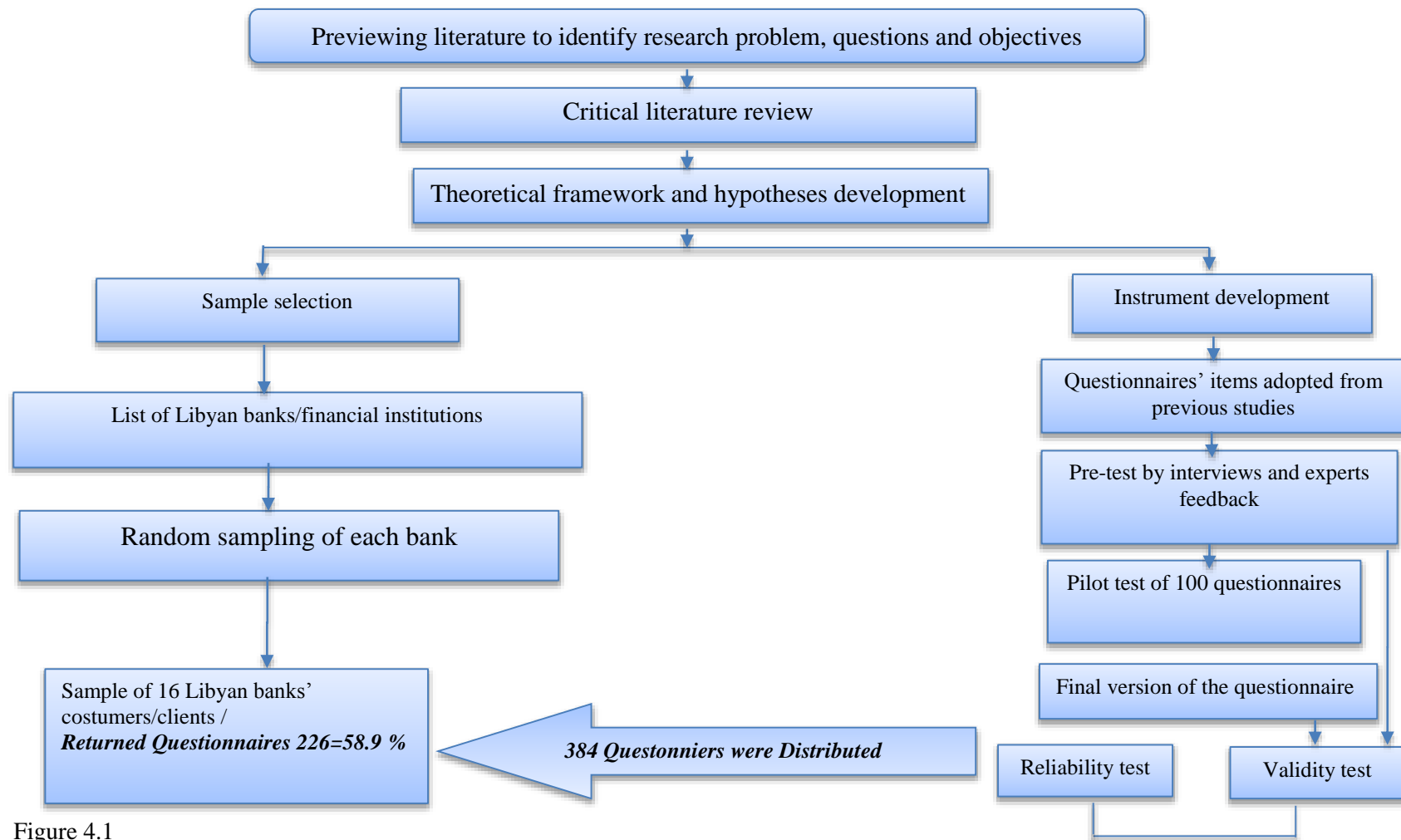


Figure 4.1  
 Research Design of the Study  
**The Research Design**

#### **4.4 Population and Sample of the Study**

A research population comprises of a collection of data and information whose properties are to be analyzed in a given research (Joseph *et al.*, 2009; Cavana *et al.*, 2001). The population could be defined as the complete collection of the subject of interest to be studied in a research (Cavana *et al.*, 2001). A sample could be defined as part of the target population of interest to be studied; it can be statistically referred to as a sub-collection that is selected from a population of interest.

Meanwhile, population sampling can be defined as the process through which any group of representative elements or individuals are selected from a given population for the primary purpose of statistical analysis. According to the recent official statistics records of the central bank of Libya CBL (2013), there is only one public bank deal and offer an Islamic productions window “dual-system” namely (The Gumhouriabank) which operates in all over the country with a total population of almost (1,524.2) clients/customers.

However, as stated by the Development African Bank (2009), the estimated number of the Libyans’ banking sector subscribers was at 1.63 million, which is represented 24.3% of the total population in 2006. The selection sample size of the current research was based on the review of research methodology literature. However, according to Kline (1998), the sample size must be at least 200 units to consider being large. Furthermore, Roscoe (1975), highlighted that the most appropriate number of the most of research should be larger than 300 and less than 500. Interestingly, Veal (2006), mentioned that, when the populations are 10,000 the sample size should be 370 units, and for 15.000 populations the sample size should be 375 units.

However, since this research is interesting in the behavioural intention to subscribe the Islamic banking in Libya, it is considered the respondents who completed a survey procedure to ensure that they had sufficient experience dealing with the both Islamic and conventional banks, banking experience in general, including, financial product information, evaluating the bank services and price.

#### **4.5 Sampling Frame**

After the type of respondent decided, the task of getting the number of banks in Libya were based on statistics from central bank of Libya (CBL, 2013). These statistics indicate that Libya has sixteen public (16) banks operated and distributed in the entire regions of Libya.

#### **4.6 Sample Size**

Choosing the sample of this study was depended on the number of Libyan citizens whom subscribed within Libyan banks that recognized by the head authority of the financial system network of Libyan Ministry of Finance, CBL and the General Information Authority (GIA 2011).

However, the latest recorded statistical according to the Libyan Ministry of Finance, CBL and GIA (2011), up to the mentioned date, showed that there were around (3,886,416.00) bank account in all Libyan sixteen existing public banks operated into the whole regions of the country. Despite of the number of bank subscriber's which was obtained from the highest financial authority in Libya, the daily changing in the number of subscriber or people who open a new account within those banks and unstable situation which is attributed to the political problems after (Libyan revolution

2011) were considered, therefore, the total records somehow not totally accurate due to these mentioned factors.

However, according to Sekaran (2003) if the total population is one Million (1000,000.00) and above, the sample size should be 384 bank customers'/clients' as shown in table 4.1.

Table 4.1

*Determining Sample Size of Given Population According to the Rule of Thumb*

<b>Number of population size (N)</b>	<b>Sample size (S)</b>
10000	370
15000	375
20000	377
30000	379
40000	380
50000	381
75000	382
1000000 or more	384

N= is population size S= is sample size

Source: Krejcie and Morgan, (1970); Sekaran, (1992 & 2003. P, 278)

Therefore, this study has used a selected of three hundred eighty four (384) bank subscribers as the sampling size as recommended by Sekaran, (2003); Krejcie and Morgan, (1970); Chehen, (1969). Based on the above discussion, three hundred eighty four (384) samples were targeted to be technically acceptable and completed.

However, the recorded response rate for the customers in past studies is between 40 - 60% (Lin & Sneed, 2007; Kosugi *et al.*, 2007). Moreover, results that are derived from a large sample could be generalized to the whole population (Hair *et al.*, 2006). In addition, the larger the sample size, the more flexibility is provided to the researcher in determining suitable responses (Sekaran, 2003).

Accordingly, (384) questionnaires were distributed in three main Libyans' states namely (Tripoli, Bangazi and Sabha) which located in the (north, south and east of Libya) and considered to have the highest number of population. Therefore, the

determination of the probability sampling of customers for each bank is needed. The next section discusses the procedures for determining the sample size.

#### 4.7 Determining the Sample Size

Generally, it is recommendable of using a large sample size in order to obtain results which are representative of the study population. In order to decide upon the appropriate sample size for this research, the researcher reviewed some of the sample sizes used in similar research on measuring banking service quality as a guide to an acceptable research sample size as it dialysed in Table 4.2.

Table 4.2

*A Summary of Some Sample Sizes Used in Measuring Banking Service Quality*

Study	Country	Sample size
Petridou, <i>et al.</i> , (2007)	Customers of Greek banks	350
Petridou, <i>et al.</i> , (2007)	Bulgarian banks	550
Glaveli <i>et al.</i> , (2006)	Banking service quality in: <ul style="list-style-type: none"> <li>➤ Greece,</li> <li>➤ Bulgaria,</li> <li>➤ Serbia,</li> <li>➤ Albania and Macedonia.</li> </ul>	153, 70, 40, 40, and 37 <ul style="list-style-type: none"> <li>➤ 153,</li> <li>➤ 70,</li> <li>➤ 40,</li> <li>➤ 40, and</li> <li>➤ 37</li> </ul> = 340
Jabnoun and AlTamimi (2003)	Customers of major local and foreign banks in the UAE.	800
Arasli, Katircioglu and Mehtap-Smadi (2005)	Turkish speaking area and the Greek-speaking area of Cyprus	268
Arasli, Mehtap-Smadi and Katircioglu (2005)	Retail bank customers were surveyed in Greek Cypriot regions.	
Sureshchandar, Rajendran and Anantharman (2003)	Indian public, private and foreign banks	98, 86 and 93 respondents, respectively, giving a total of 277.
Jabnoun and Khalifa (2005)	115 questionnaires to Islamic banks" customers and 115 questionnaires to conventional banks" customers in the UAE.	230
Spathis, Petridou and Glaveli, (2004)	Individual customers of public and private banks in urban and rural Greece	1260
Al-Tamimi and Al-Amiri (2003)	Two UAE Islamic banks.	700 questionnaires

However, the average total of these sample sizes is 520 with unequal distribution across the countries in which they were used. In deciding on this research sample size

the researcher also considered the fact that “Minimum sample sizes for a quantitative consumer survey are of the order of 300 to 500 respondents” (Crouch, 1984, p. 142). Furthermore, the following two points were considered before deciding the sample size being used in this research study (Nachmias & Nachmais, 1981):

- The larger sample size is required for the sample to be representative.
- The sample size must meet the statistical requirements of a particular statistical analysis that the researcher wishes to conduct.

In view of the above arguments and after reviewing the literature, the researcher has used a sample size of (384) customers in the whole banking sector, which is would be suitable and appropriate for this sort of research.

For that reason, in carrying out of the purpose of this study and to choose a safe number of sample sizes, (384) Libyan bank customers/clients was used as the sample for this study as recommended. However, this since the population is not widely dispersed, homogeneous and not significantly different in terms of sub-groups size. The sampling also took into consideration the reality that only those willing and able to participate can be taken as respondents for this study. However, three hundred eighty four questionnaires were distributed proportionally equally and based on the number of customers in the cities branches’. Specifically, 130 questionnaires were distributed in Tripoli, 130 questionnaires in Bangazi, 124 questionnaires in Sabha.

#### **4.7.1 The Sampling Choice, Location, and Unit**

The sample choice of this research is (384) for Libyan bank subscribers as a targeted of the sample size. This sample size was comprised those banks which provide and offered or not the IBS financial products for the public sector. The branches were selected from each bank, with care to include variation in geographic location and size.



These branches, therefore, were selected in a number of cities within the West, East and South of Libya as mentioned earlier.

The respondents surveyed (sampling unit) in this research are the clients/customers of Libyan public banking sectors. The choice of these banks is based on the following choice and considerations:

1. The researcher selected these three large cities; since of the high level of resources that these banks should devote to addressing service quality issues.
2. These cities are well established in terms of dealing with the banking sector, therefore it is expected that their customers are aware about service quality issues which in turn enable them to judge the actual levels of service quality.
3. The researcher selected banks' branches within different parts of the country (in the East, West and North of Libya) in order to support possible generalization for data collection process within the Libyan regions. However, this because these areas host more than 80% per cent of the Libyan population (Authority, 2013), and also to get an equal chance for assessing service quality knowledge and awareness' about the IBS levels in branches located in different regions equally.

Accordingly, since the sample size of this study is going were decided to be (384), which were divided on the three main selected Libyan cities, namely (Tripoli, Bangazi and Sabha), certain questionnaires number to each state were distributed (130 Tripoli, 130 Bangazi and 124 Sabha) and divided on the bank's branches in the state's cities. However, each responder had enough time in order to answer the questions accurately.

For that reason, personal contact was made to the managers of each bank, to talk about the purpose of the research. A consent letter of conducting survey attached from Universiti Utara Malaysia, Othman Yeop Abdullah (OYA) to each bank explaining

the nature and purpose of the research also were given to those bank managers to obtain permission for the research to be undertaken.

#### **4.7.2 Random Samples Technique**

For the purpose of easy generalizability, the present research employs the simple random sampling design. Simple random sampling design is a method of sampling, where each member of the population gets an equal chance of being chosen from a target population utilizing a particular method like excels as the sample selection basis (Hau & Marsh, 2004; Van *et al.*, 2002; & Cavana *et al.*, 2001).

According to Cavana *et al.*, (2001), the main way to select members of a target sample population through simple random sampling is to offer the total population equal chances of selection. The selection outcome is considered as the standard benchmark for the sample unit selected from the total population. In the present study, the total random group of 384 is chosen from the above of total population of 3,000,000.00 banks' customers/subscribers from 16 Libyan banks in Libya.

The selection of respondents was in such every first 10<sup>th</sup> walking customer or client in each and every selected bank in those cities which were chosen.

#### **4.7.3 Questionnaire Design**

The questionnaire design is a very significant research phase and as revealed from various studies, it has two major objectives. First, it offers a chance to gather information from the respondents and second, it helps in veering off from and minimizing potential measurement error through the logical question arrangement that is clear to the respondents (Clark, 1989).

Moreover, the questionnaire is described as a pre-formulated set of questions utilized for collection of data (Sekaran, 2003). For the present study, the original questionnaire comprises of five pages divided into three parts; one comprises the cover letter wherein the title of the study is explained as well as the questionnaire and the confidentiality statement, while part two comprises of several general questions (E.g. Bank type), part three and four comprise the government support, religious obligation and the level of the users of Islamic finance productions satisfaction as well as the service quality factors which influencing the INT in Libya.

The first part of the questionnaire designed to measure ten latent variables. These latent variables are: (1) The behavior intention to subscribe the banking system, (2) religious obligation, (3) government support, (4) knowledge and awareness on Islamic banking system (INT), (5) compliance, (6) assurance, (7) responsiveness, (8) tangibility, (9) empathy, (10) reliability.

Where, the second part is divided into five questions relating to the respondents' general demographic profile measured by nominal and ordinal scales like gender, age, income, occupation and education). While a question concerns the gender, another entails the measurement of age groups comprising of six choices for instance; 1. Between 18-25 years old, 2. 26 – 35 years old, 3. 36 – 45 years old, 4. 46-55 years old, 5. 56-65 years old, 6. 66 years old and above (for more details please refer to Appendix 4.1).

However, the endogenous variables are from factors 1-3; while exogenous variables are from 4-10. Owing to the many antecedent variables of the present study, the questionnaire became lengthy which might be problematic to the respondents. Thus to

decrease complaints and ambiguity, poor response rate and incomplete response, the researcher carefully chose the instruments.

The instrument selection for the present study's has its basis on several factors; first, high internal reliability in prior researches, where alpha found to be high as reported by several authors (Compliance 0.70, Assurance 0.81, Reliability 0.79, Tangible 0.89, Empathy 0.77 and responsiveness 0.79 respectively) which supports the reliability of these instruments (Saghier & Nathan, 2013; Abdulqawi Othman & Owen, 2001).

Second, it has been previously utilized particularly in relation to purchase intention setting and in various areas of practice. Thus, the instruments have been previously tested. Third, the measures are easily-administered with a sense that scale measurement as opposed to complex one is utilized. In addition, to guarantee a good rate of response, some steps have been followed concerning the respondents.

First, getting the managers of the bank cooperation; second, reminding the respondents of the questionnaire's importance, third, the appointment of some research assistants to distribute the questionnaire, and finally, the data was collected from the banks in almost four month duration.

#### **4.7.4 Types of Questionnaire**

The main objective behind a questionnaire is to gather information concerning particular variables on the basis of how people feel about the topic. The questions are open-ended, dichotomous, or close-ended. The present research employs close-ended questions for the limited answers in measuring the respondents' objective as well as subjective feelings regarding factors influencing the INT within Libyan context.

As such, the researcher followed standardized, well-structured questions that are easily tackled by the respondents. Meticulous procedure is called for as expected responses are imperative to achieve a reliable statistical final outcome (Hair *et al.*, 2006).

#### **4.7.5 Questionnaire Language**

To ensure content validity, items were adopted from previous studies concerning intention and government support and religious obligation as well as the SERVQUAL dimensions. The focus of the questionnaire is the language and as most Libyan speak and understand Arabic as opposed to English, back translation procedure was utilized to translate the questionnaires. This method of back translation consist of the translation of a text which itself is a translation back into the the original language, it is widely recommended method as a way to assess the translations work (Harkness, & Schoua-Glusberg, 1998).

First, it has been translated from English into Arabic using two experts. The first translation has been translated again to English by expert scholars. According to Cooper and Schindler (2008), question transformation occurs when participants fail to process every word in the question and hence may modify the question to suit their reference frame or to understand them. It is imperative to determine how participants modify unclear questions.

The final questionnaire is in Arabic language for the convenience of respondents. The questions were short, simple and concise (Kassim, 2001). While English is just used in Libya in the business/political environment, questionnaires are available in both English and Arabic and a simple preamble will be provided to the respondents (for more details refer to Appendix 4.2).

#### **4.7.6 Variables Measurement**

Ten variables are measured in the survey, namely the intention to subscribe the Islamic banking system (INT), religious obligation (RO), government support (GS), knowledge and awareness on the Islamic banking system (KU), service quality (CARTER Model) namely: tangibility, reliability, responsiveness, assurance, empathy and compliance; variables that are adopted from prior studies modified to suit the study's objectives. However, for addressing the research questions of this study, several items have been identified to represent the dependent and independent variables as shown in below Table 4.4. Each of the multi-item measures were based on seven-point Likert-type scales anchored as described within each measure. All measures were adopted from previous studies. Furthermore, these items have been further refined through conducting a pilot study of the instrument. Additionally, the scales still subjected to exploratory factor analysis.

The following Table 4.3 illustrates and summarizes the instruments used for the entire variables with its sources used in this research.

Table 4.3

*Constructs/Items of the Study, Operational Definitions, and the Adopted Resources*

<b>Variables/ Constructs</b>	<b>Operational Definition/ Setting</b>	<b>No. of items</b>	<b>Source</b>
<b>Behavior intention/the Intention to subscribe the Islamic banking System (IBS).</b>	<p>“This depicts what consumers think about whether or not they will subscribe or not subscribe to the Shariah compliant financial system. In other words, it is the “individual’s readiness and willingness to subscribe to the Shariah compliant financial system”</p> <p>In addition, it can also be explained as how likely will the individual intentions’ or purchase the Islamic banking System (IBS) products or the inclination of the individual to use or deal with a certain product”.</p>	11	(Ajzen and Fishbein1980; Phelps and Hoy, 1996; Belch and Belch, 2004)
<b>Religious obligation (RO)</b>	Refers to the religion role that could affect individual’s choice of activities. These rules and circumstances which people abide and stick out with as part of their religion which at times can be an actions or even feelings i.e sympathetic.	7	Amin <i>et al.</i> , (2011)
<b>Government support (GS)</b>	“This explains the government’s facilitation of the condition which translates into how available the resources which are needed for the behavior are to be carried out”.	11	Triandis., (1979)
<b>Knowledge and awareness on the Islamic banking System (IBS).</b>	<p>“Knowing something; knowing that something exists and is important; also defined as being interested in something” (Dictionaries, 2013).</p> <p>“knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience”(Cambridge, 2013)</p>	5	(Cambridge, 2013; Dictionaries, 2013)
<b>Compliance</b>	“This means the ability to fulfill with Islamic Law and operate under the principles of Islamic banking and economy”.	5	Othman, and Owen, (2001).
<b>Assurance</b>	“It is the knowledge and courtesy of employees and their ability to inspire trust and confidence. However, it also means the polite and friendly staffs, provision of financial advice, interior comfort, eases of access to account information and knowledgeable and experienced management team”.	7	Parasuraman <i>et al.</i> , (1985); Sadek <i>et al.</i> ,(2010)
<b>Reliability</b>	<p>“Reliability depends on handling customers' service problems; performing services right the first time; provide services at the promised time and maintaining error-free recording. Furthermore, they stated reliability as the most important factor in conventional service”.</p> <p>“Reliability also consists of accurate order fulfillment; accurate record; accurate quote; accuracy in billing; accurate calculation of commissions; keep services promise. He also mentioned that reliability is the most important factor in banking services”.</p>	5	Parasuraman <i>et al.</i> , (1988); Yang <i>et al.</i> , (2004).
<b>Tangibility</b>	“The appearance of physical facilities, equipment, personnel, and written materials. It’s also referred to modern looking equipment, physical facility, employees are well dressed and materials are visually appealing”.	7	Parasuraman <i>et al.</i> , (1985); Ananth <i>et al.</i> , (2011)

Table 4.3 (Continued)

<b>Empathy</b>	“It’s the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. It is also given the individual attention; convenient operating hours; giving personal attention; best interest at heart and understands the customer’s specific needs”.	9	Parasuraman <i>et al.</i> , (1985); Ananth <i>et al.</i> , (2011)
<b>Responsiveness</b>	“Responsiveness defined as the willingness or readiness of employees to provide service. It involves the timeliness of services. It is also involved the understanding needs and wants of the customers, convenient operating hours, individual attention given by the staff, attention to problems and customers’ safety in their transaction”.	8	Parasuraman <i>et al.</i> , (1985); Kumar <i>et al.</i> , (2009)
<b>Total Items</b>		<b>75</b>	



#### 4.7.6.1 The Intention to Subscribe the Islamic Banking System (INT) Measure

To measure the INT this was derived from the relevant studies and literature. However, ten items developed by (Ajzen & Fishbein 1980; Phelps & Hoy, 1996), was adopted and used to measure the INT. However, below Table 4.4 shows the items, item's code as well as the measurements' statements used to measure the intention to subscribe the Islamic banking system.

Table 4.4  
*Measures of the Intention to Subscribe the Islamic Banking System*

Items code	Item Statements
INS 1	I am interested to use Islamic financing products.
INS 2	I am interested to use Islamic financing products in the future.
INS 3	I will not definitely recommend Islamic personal financing to others.
INS 4	I will recommend friends to subscribe within the bank which is based on Shariah compliant finance system
INS 5	I will subscribe to the Shariah compliance financial bank and I will not subscribe to conventional one.
INS 6	I will always deal with the bank who offers an Islamic financial products "E.g. Mdarabha and Musharkha"
INS 7	I will only use conventional banks' products when Islamic products are not available).
INS 8	I will use and deal with the Islamic products, even at higher prices
INS 9	I would use the conventional banks products and brand rather than Shariah compliant finance.
INS 10	There is a good probability that I would consider subscribing within Shariah compliant finance banks (Reverse).

#### 4.7.6.2 Religious Obligation (RO) Measure

For addressing the research questions of this study, several items have been identified to measure the moderation effect of religious obligation between the dependent and independent variables. However, to achieve the study fifth and sixth objectives; 5 items have adopted from Amin *et al.*, (2011) which are in order to measure the religious obligation effect. Table 4.5 illustrates the item statement and codes. The table shows items and measurements used to measure RO.

Table 4.5  
*Measures of the Religious Obligation*

<b>Items code</b>	<b>Item Statements</b>
<b>RO 1</b>	The Shariah compliant finance system is in line with an Islamic philosophy of doing banking business.
<b>RO 2</b>	The Islamic banking system is based on Islamic principle business implementation.
<b>RO 3</b>	An introduction of Shariah compliant finance system is based on "Quran and Hadith".
<b>RO 4</b>	The Shariah compliant financial system is free from "Interest" Riba.
<b>RO 5</b>	The Shariah compliant financial system is free from fraud

#### **4.7.6.3 Government Support (GS) Measure**

Several number of items was adopted to measures the GS measurement which was based on eight items were droved from previous related studies particularly from Triandis, (1979) and Amin, Rahman and Hwa, (2011). The respondents are asked to range in the seven-point Likert scale measure the level of agreement to these activities. The scales are ranging from "1"= Strongly Disagree, while 2=Disagree, 3=Disagree Somewhat, 4= either agree or disagree, 5=Agree Somewhat, 6=Agree, and 7=Strongly Agree. Below table 4.6 shows the items and measurements used to measure GS.

Table 4.6  
*Measures of the Government Support*

<b>Items code</b>	<b>Item Statements</b>
<b>GS 1</b>	The Libyan Central Bank encourages both the use of Islamic and conventional banking financing facilities.
<b>GS 2</b>	The Libyan government provides incentives to the Islamic banking industry.
<b>GS 3</b>	The Libyan government guarantees the stability of the Islamic finance industry.
<b>GS 4</b>	The Central Bank of Libyan always scrutinizes the move of Islamic banking operations.
<b>GS 5</b>	The Central Bank of Libya encourages new innovations in Islamic banking operations.
<b>GS 6</b>	The Libyan government endorses Islamic banking operations within Libyan banks and financial institutions.
<b>GS 7</b>	The Libyan government is active in setting up the facilities to enable the Islamic finance system.
<b>GS 8</b>	The Libyan government promotes the subscription of the Islamic finance system.
<b>GS 9</b>	The Libyan government spends money on educating consumers of the Islamic banking System (IBS) products .
<b>GS 10</b>	In general, what is offered "products" on the Islamic banks is often not what you get.
<b>GS 11</b>	The Libyan government expects many Libyan citizens will subscribe the banks, which offers the Islamic banking System (IBS) product.

#### 4.7.6.4 Knowledge and Awareness of the Islamic Banking System (KU)

##### Measure

The measurement of KU adopted from Erol and El-Bdour, (1989) by using a total items of 7 items. The respondents are asked to range on the seven-point Likert scale measurement the level of awareness to these activities. The scales are ranging from, 1=Fully Unaware, 2=Unaware, 3=Unaware somewhat, 4=Neutral, 5=Little Awareness, 6=Aware somewhat, and finally 7=Aware and Fully Aware. However, below table 4.7 shows the items and measurements used to measure KU.

Table 4.7

*Measures of the Knowledge and Awareness on the Islamic Banking System*

Items code	Item Statements
AW 1	I'm aware of the Islamic banking products (E.g. Islamic current accounts, Islamic saving accounts and Islamic investment accounts "Mudharaba, Musharaka, Murabaha, Ijara and Beneficent Loan").
AW 2	I am aware of the principle, terms and conditions of Islamic business finance
AW 3	I'm aware of any controversy of Murabaha as a method for personal Islamic finance
AW 4	I believe that the elimination of interest rates charged on loans provided between the bank and the borrower will be advantageous to the borrower.
AW 5	More branches of Islamic banking institutions opened up throughout the country, the more people will utilize the services

#### 4.7.6.5 Service Quality (CARTER Model) Measures

As reported in the literature SERVQUAL (CARTER Model) have been inconsistent in many ways of measure and results obtained of these elements of the (CARTER model). For the objective of this study, the study and order to comprehensively capture the critical factors of the SERVQUAL, the research therefore uses the CARTER model elements which are commonly used in several studies used in regards to the Islamic finance banking before. As depicted in the research framework, there are six dimensions which represented the CARTER model, namely (Compliance, assurance, reliability, tangibility, empathy and eventually responsiveness), however, each and every dimension stated early was treated independently.

However, the dimensions' measurement items have adopted from several literature and resources. Where, compliance was adopted from Othman and Owen, (2001) of a total of 6 items. The assurance measurement is adopted from Parasuraman *et al.*, (1985) the total items is 8 items.

Whereas, the reliability variable measurement is adopted from Parasuraman *et al.*, (1988) and Yang *et al.*, (2004) using a total of 8 items. Tangibility variable measurement is adopted from Parasuraman *et al.*, (1985) and Ananth *et al.*, (2011) using the total number of 6 items. Empathy variable measurement is adopted from Ananth *et al.*, (2011) Parasuraman *et al.*, (1985) using a total number of 6 items.

Finally, a total number of 7 items adopted from Parasuraman *et al.*, (1985) and Kumar *et al.*, (2009) to measure the responsiveness variable. The respondents are asked to range in the seven-point Likert scale measure the level of agreement to these activities. The scales are ranging from "1"= Strongly Disagree, while 2=Disagree, 3=Disagree Somewhat, 4= neither agree nor disagree, 5=Agree Somewhat, 6=Agree, and 7=Strongly Agree. However, Tables 4.8 - 4.13 shows the items and measurements used to measure the CARTER model dimensions.

Table 4.8

*Measures of Compliance*

<b>Items code</b>	<b>Item Statements</b>
<b>CO 1</b>	I prefer a bank which is run on Islamic principles.
<b>CO 2</b>	I'm not interested neither paid nor taken in being subscriber with this kind of banks.
<b>CO 3</b>	It's very important to provide several products and services by the Islamic banking system banks and institutions.
<b>CO 4</b>	I always look for banks, which provide of free interest loans.
<b>CO 5</b>	I always look for a provider of profit-sharing investment products.

Table 4.9

*Measures of Assurance*

<b>Items code</b>	<b>Item Statements</b>
AS 1	The bank staff must be courteous with the bank's customers and clients.
AS 2	The bank staffs have to be trusted in personal matters of the customers and clients.
AS 3	The bank staffs have to be full of knowledge to help the customers and clients.
AS 4	The bank staff must always to fulfilled their promises
AS 5	The bank staff should always tell the exact timing of their services to be performed
AS 6	There is highly need of the ease of access to account information
AS 7	The bank should have a knowledgeable and experienced management team

Table 4.10

*Measures of Reliability*

<b>Items code</b>	<b>Item Statements</b>
RL 1	The bank staffs' have to be always supportive to customers in terms of solving their individual problems
RL 2	The bank has to be safe to do any transaction (related to the bank matters) with the customers
RL 3	The banks should have a wide range of products and services provided
RL 4	The bank staff have to maintain an accurate record of the customers in order to provide the best of their services
RL 5	The bank staff has to be timely enough in terms if fulfilling their commitments

Table 4.11

*Measures of Tangibility*

<b>Items code</b>	<b>Item Statements</b>
TA 1	Care about the bank staff to be neat and clean
TA 2	The bank staffs have to be sympathetic and reassuring in case of problem with customers.
TA 3	Bank facilities' has to be completed with up to date
TA 4	I believe that the physical layout of the building has to be appealing
TA 5	The physical facilities (e.g. Customer services department, table, chairs, etc...) needs to be appealing
TA 6	I' concerns about the overdraft privileges on current account
TA 7	Speed and efficiency of transactions have to be affective

Table 4.12

*Measures of Empathy*

<b>Items code</b>	<b>Item Statements</b>
EM 1	It's good when customer interest always comes first
EM 2	It's very important to understand the customer specific requirements by the bank staff
EM 3	For the bank staff, giving personal attention to each customer's is unrealistic
EM 4	The bank staff should be flexible enough (in terms of time) to convince all the customers
EM 5	I care and look at bank's familiarity, reputation and image
EM 6	One of the good sign for me is bank confidentiality
EM 7	I always look for bank who offer low service charge

Table 4.12 (Continued)

<b>EM 8</b>	Products and service profitability are important to me
<b>EM 9</b>	Knowing the exact requirements of the customers is unrealistic

Table 4.13

*Measures of Responsiveness*

<b>Items code</b>	<b>Item Statements</b>
<b>RE 1</b>	I care about the bank staff being punctual/prompt to response the customer needs
<b>RE 2</b>	I look for duty timings of the bank staff to be flexible to serve the customer
<b>RE 3</b>	Individual attention (towards each customer) needs to provide by the bank staff
<b>RE 4</b>	The bank staff have to be very convenient in terms of their willingness to help customers
<b>RE 5</b>	I look for banks' staff whom never be too busy in terms of responding to the requests of customers
<b>RE 6</b>	Fast and efficient counter services are always important to me.
<b>RE 7</b>	The Way staff treat customers is important.
<b>RE 8</b>	I always look for the availability of credit on favourable terms

#### **4.8 Data Analysis**

In order to achieve the research objectives of this study, which mentioned in earlier chapter one, the current research has applied and used the Structure Equation Modelling (SEM 21.0 version), in analyzing the data obtained from the questionnaires specifically, objectives one and two. On the other hand, for the objectives three to six hierarchical regression applied by using SEM.

Though, the data analysis is a phase involving various activities including data entry of responses, data screening, and selection of suitable data for the data analysis (Churchill & Lacobucci, 2004; & Sekaran, 2003). Therefore, for the identification of data entry errors, data screening have been conducted which encompassed testing of missing data, validity, descriptive data and response bias. In this phase the SPSS package (version 21.0) used to conduct selected related statistical tests. Eventually, after the data screening procedures done, the final phase conducted using the Structural Equation Modeling (SEM) AMOS version 21.0 to analyze the data and to test the hypotheses.

However, data analysis is the phase that involving several activities including the data collection procedures and procedure which is included the data entry or (Key in) of responses answers, data screening as well as selection of appropriate technique for the data analysis (Churchill & Lacobucci, 2004; Sekaran, 2003).

#### **4.8.1 Unit of Analysis**

The gathering information from multiple respondents is important because doing so minimizes the potential of bias from a single informant; this approach is associated with high cost both in terms of sample size and financial resources (Delmas, 2001). Therefore, this research focuses on a single respondent from each bank in libyan banking sector. It has been noted that in a large sample study, identifying and obtaining responses from multiple respondents is extremely problematic and that the key methodological solution is to find the most appropriate respondent (Baba, 2004; Wagner, 2007).

The target of this research was the persons who have a banking account and those whom subscribed and deal with the financial institutions activities and operations in the banking sector under study. The respondents were asked to fill in the questionnaire themselves. The researcher followed previous recommendations regarding the improvement of the response rate. The questionnaires sent with an attractive cover letter (recommendations supported by previous studies indicate the importance of doing so), and a number of contacts followed up the distribution of the questionnaire.

#### **4.8.2 Techniques of Data Analysis**

There are several types of statistical techniques in analyzing the data and testing the hypotheses. The current study used the Statistical Package for Social Science SPSS

software (version 21.0) along with the Structure Equation Modelling (SEM) software (version 21.0) in analyzing the obtained data.

#### **4.8.3 Analyzing the Data by Using Statistical Package for Social Science (SPSS)**

In this phase, the study first used the statistical techniques package (SPSS 21.0) for the following technique's and purpose:

- 1- Entering the data: In this phase the returned questionnaires were entered for analysis into the SPSS software version 21.0 involving the steps of data editing and coding. Based on the study by Zikmund-William (2003), the aim behind data coding is the systematic storage and identification. In this study, data coding were conducted to make it convenient for data entry in SPSS software version 21.0. Data coding, on the other hand, is carried out by relying symbols character (mostly numerical codes) on the subjective data. For appropriateness, the data were edited prior to entering into the software.
- 2- The second phase of the analyzing part is by conducting the data screening, which is the missing data test that identified the missing data. Data is often incomplete owing to the various phases involved in the completion of the questionnaire. Respondents often refuse to reply to personal questions such as their income, age among others. In addition, some respondents leave unanswered questions owing to their ignorance concerning the topic. Missing data as established in prior studies can be because of this reason (Kline, 1998). Besides deleting them, the researcher may also replace them with the mean value in case the missing data is not over 5% of the total data required (Hair *et al.*, 2010).

Moreover, it is highly recommended by several authors and scholars of conducting reliability and validity analysis test which use to assure the reliability as well as the



construct validity of the instrument of the study, nevertheless, there might or might not be other techniques which the researcher and based on literature found it worthy to enhance the study analysis and result in regarding with this SPSS software 21.0 version.

#### **4.8.4 Structural Equation Modeling (SEM)**

Structural Equation Modeling (SEM) used as the main analysis method because of the presence of the moderator variables in the current research. In addition, SEM may also lay down the paths in the final model (Revised Model). The structural equation modeling or SEM is a statistical modeling that examines the relationships between several latent constructs (Hair *et al.*, 2010). Likewise, this research used SEM to analyze causal relationships between latent variables relationships, explaining the dynamism of variables (exogenous constructs) and their impacts on other variables (endogenous constructs).

Structural Equation Modeling (SEM) is commonly utilized in various fields of disciplines. The extant literature reveals that SEM is an effective second generation multivariate method that is suitable for analyzing results which involve several variables and allows the assessment of measurement properties and theoretical relations with multiple relations at the same time in the same analysis (Byrne, 2010; Hair *et al.*, 2010; Hau & Marsh, 2004).

Furthermore, SEM is both factor and path analysis for a simultaneous estimate of measure and lays down the relationships between several related constructs known as latent variables (Byrne, 2010; Hair *et al.*, 2010). Additionally, Structural Equation Modeling (SEM) has become among the criteria kept into consideration when selecting research methodologies, especially in the study concerning issues linked to

social and behavioral sciences. It comprises of two main functions, the measurement, i.e. the things that requires measurement, the measurement method, and how to meet the reliability and validity conditions, and casual relationships among variables and explanations underlying complex and unobserved variables (Hair *et al.*, 2010).

However, several techniques used factor analysis in analyzing the data. Factor analysis which is used to be as an evident in numerous of the extant literatures, factor analysis which is a statistical modeling approach developed and utilized by an English psychologist, Charles Spearman while he was studying an unobservable hypothetically existing variable (Raykov & Marcoulides, 2006).

Generally, factor analysis can be used as a modeling approach for studying hypothetical constructs through indicators or observable proxies that can be directly measured (Byrne, 2010; Hair *et al.*, 2010; Raykov & Marcoulides, 2006). Moreover, factor analysis is referred to as Exploratory Factor Analysis (EFA) if the issue of interest regards the determination of the number of latent constructs or factors required to efficiently clarify the relationships existing among a set of observed measures (Hair *et al.*, 2010; Hu & Bentler, 1995).

The Confirmatory Factor Analysis (CFA) is an alternative to EFA where the pre-existing structures of the relations existing among the measures are quantified and examined. However, unlike EFA, the CFA's main concern is not the examination and confirmation of available details of the assumed factor structures. Anyway, researchers should have an idea of the structure compositions prior to confirming any specific factor structures.

Additionally, CFA which is a modeling approach that was created to examine any hypothesized relationship regarding a factor structure and when the factor numbers

and their interpretations in light of indicators are provided prior to the analysis. Hence, the present research follows the three recommended CFA phases; reviewing related theories, providing a conceptualization of the hypothesized relationships into a model and finally testing the model for internal and external consistency along with the observed explanatory data.

#### **4.8.4.1 Justifications of Using SEM**

When it comes to the statistical tools, there are several tools and statistical package which can be used in analyzing the obtained data, the current study comes to the final reading by choosing the Structural Equation Modeling (SEM) for several reasons and causes. SEM, which is described as a statistical methodology using a confirmatory method to investigate a structural theory, bringing to attention the presence of a specific phenomenon. Generally, the theory comprises of causal processes that make observations on multiple variables (Bentler, 1988).

However, it works for the same purpose along with multiple regressions, but SEM has a more powerful analysis and modeling of the interactions which is considered as well as an issue linked to non-linearity, measurement errors, correlated independents, correlated error terms, multiple latent independents (measured through multiple indicators) as well as latent dependents with multiple indicators. A confirmatory method for data analysis is called for as opposed to using exploratory factor analysis that uses multivariate procedure. Through the use of multivariate procedures, it is challenging to carry out hypothesis testing (Byrne, 2001).

Moreover, for the examination of the complex nature of the interrelationships among several variables, SEM is suitable to be used for the following reasons; it enables the use of multiple indicators to measure constructs and to minimize measurement errors

through multiple indicators for individual latent variable, and it is capable of evaluating causal relations between multiple constructs simultaneously (Joreskog & Sorbom, 1982).

Additionally, SEM is also capable of gaining insights into the directions of the impact between research constructs and of examining the way test variables impact each other and the level of impact (Judge & Ferris, 1993). It can provide a complete assessment of the proposed model fit, and examine individual propositions as opposed to coefficients, which is the scenario in (Multiple Regression). Moreover, it is capable of modeling intervening variables (indirect effects) and features a unique graphical modeling interface. Finally, SEM is capable of incorporating unobserved and observed variables in data analysis as opposed to making use of only observed measurements with multivariate procedures (Byrne, 2001). Therefore, SEM is suitable to be used to test various models of fit and to create an overall model that best reflects the data and in turn develops the theory.

Furthermore, SEM is sub-divided into sub-models; a measurement model and a structural model. The former determines relationships between the observed and unobserved variables while the latter defines relationships among the unobserved (latent) variables, through the specification of which latent variables influence directly or indirectly the changes in other latent variables present in the model (Byrne, 2001). In other words, the SEM procedure comprises of two components; to validate the measurement model and to fit the structural model. The former is conducted through confirmatory factor analysis while the latter is conducted through path analysis with latent variables. Through the specification of a model based on a theory, individual variables in the model may be conceptualized as latent or unobservable variables,

measured by multiple indicators. Several indicators are created with at least two or three for every latent variable (after confirmatory factor analysis).

Moreover, on the basis of a great representative sample, and to verify the measurement model, common factor analysis or principal axis factoring is utilized to lay down the indicators that appear to measure the corresponding latent variables. Two or more than two alternative models are compared in light of their model fit, which gauges the degree to which the covariance predicted by the model is aligned with the observed data covariance. Furthermore, modification indices and other coefficients may be utilized for the modification of one or more models to enhance the fit (Kline, 1999).

The SEM analysis includes LISREL (Linear Structural Relationships); AMOS (Analysis of Moment Structures). The latter is developed by Arbuckle in 1977 and it possesses many advantages over other programs of its caliber. The package's graphical interface as well as its approach of specifying structural models is user-friendly (Kline, 1999). It is convenient and easy to use to present the hypothesized relations among the variables. AMOS is also commonly utilized in the fields of various disciplines including marketing in terms of purchase of a local product brand (Kumar *et al.*, 2009; Dmitrovic *et al.*, 2009; Vida *et al.*, 2008). The researcher made use of SEM in the present study.

#### **4.9 Pilot Study**

The first draft of the questionnaire has gone through several phases and steps of revisions to rectify the problems as well as clarify the ambiguity arose. However, since the study used questionnaire-based survey, the reliability and validity of the questionnaire must be confirmed prior to actual survey carried out. Content validity

refers to the systematic assessment of the scale to insure that it can measure what is supposed to measure (Hair, Money, Samouel, & Page, 2007).

#### **4.9.1 Measuring the Reliability and Validity of the Measurements**

The data are considered to be contently validated if experts agree which the study instruments include items that are capable to cover the entire variables which are measured (Bhattacharjee, 2012; Hair, William, Barry, & Anderson, 2010; Sekaran, 2006). Additionally, Hair *et al.*, (2007) noted that validation involves consulting a small sample of typical respondents and/or experts to pass judgments on the suitability of the items chosen to represent the construct. Validity refers to the indicators used in the questionnaire represent the concept in an accurate manner, while the reliability refers to the existence of the consistency between the indicators (Hair *et al.*, 2007).

Achieving reliability and validity of the questionnaire means that the questions asked are clear to the respondents, and the response options are comprehensive and appropriate (Watson, 1998). Such procedures can be achieved by conducting a pilot study. The pilot study is strongly recommended to test the questionnaire (Babbie, 1995; Hair *et al.*, 2007; Watson, 1998). Even though the questionnaire used in this study was adopted from similar previous studies, pre-test of the questionnaire is required. This is because the questionnaire is adopted from different geographical areas (e.g., UK, Malaysia and Pakistan), and it needs to be translated into the Arab language. Such reasons force the researcher to retest the questionnaire to identify its propriety of work in Libyan context. (Hair *et al.*, 2007) said that:

*“If a researcher has used a questionnaire in England and is asked to use in the US it must be pretested. And of course, if the questionnaire was translated into French for use in France it must be extensively pretested” (p.279).*

Hair *et al.*, (2007) suggested that the smallest number for the pre-test should be four or five individuals while the largest number of the pre-test should be no more than 30. The reliability coefficient scores are considered poor when the alpha coefficient range  $< 0.6$ , moderate when the range is between 6 and 7, good when the range is between 7 and 8, very good between 8 and 9, and excellent when the alpha coefficient range equal to or more than 9 (Hair *et al.*, 2007; Nunnally, Bernstein, & Berge, 1967). If alpha  $> 0.95$ , the items should be checked to ensure that they measure different aspects of the concept (Hair *et al.*, 2007).

However, with regard to the current study, 100 questionnaires were distributed to Libyan banks' subscribers from different banks for the purpose of the pilot test. Therefore, the reliability test of the instrument was conducted in order to test the level of reliability of each and every variable, the Table 4.14 below demonstrations of the reliability test of the instrument and the alpha levels for each variable.

Table 4.14  
*Reliability Test Summary of Measurement and Cronbach's Alpha and Composite Reliability Values of the Pilot Test and Actual Research*

Construct's name	Code	No. Of items	Deleted Items*	Pilot test Cronbach's alpha $\alpha$
<b>Intention to subscribe IBS</b>	IN	11	Nil	0.874
<b>Religious obligation</b>	RO	7	Nil	0.743
<b>Government support</b>	GS	11	Nil	0.854
<b>Knowledge &amp; Awareness</b>	KU	5	Nil	0.816
<b>Compliance</b>	C	5	Nil	0.745
<b>Assurance</b>	AS	7	Nil	0.706
<b>Reliability</b>	R	5	Nil	0.660
<b>Tangibility</b>	T	7	Nil	0.634
<b>Empathy</b>	E	9	Nil	0.868
<b>Responsiveness</b>	RE	8	Nil	0.854

\*Number of the item as sequenced in the questionnaire

Conducting the reliability test resulted in achieving Cronbach's alpha values of the ranges from 0.874 to 0.634 more than the required 0.6 cut off criterion that is generally regarded as sufficient for empirical research (Hair, *et al.*, 2007; Nunnally, *et al.*, 1967).

#### **4.9.1.1 Data Collection Procedures**

Conducting a survey study requires choosing a type of data collection from among different types. Those are mail, telephone, face-to face, drop-off, and electronic survey (Hair *et al.*, 2007; Watson, 1998). Each type has its strengths, weaknesses, and specific possibilities. For instance, the mail survey is an appropriate for survey the people who have reliable and available addresses and in the case when the immediate turnaround is not required. Telephone surveys require the existence of telephones, and the survey questions are relatively straightforward, and this type used when the quick turnaround is important. The face-to face survey requires neither telephones nor mails and is used when the respondents are not likely to respond accurately using the previous methods, and when the questionnaire is complex and requires explanation by the researcher. When the sample of study is small, the drop off survey becomes a suitable way to collect the data. Finally, the electronic survey requires that the respondents have e-mail access and the researcher has access to the targeted network (Hair *et al.*, 2007; Thach, 1995; Watson, 1998).

The mail questionnaire method is considered as the most used tool of studies in the behavioral and social sciences (Baba, 2004). Moreover, due to the large size of the sample, it is difficult to conduct other types of data collection such as interviews, or observation with a large number of geographically dispersed corporations. Besides, the mail questionnaire technique is less costly than other methods and is an appropriate tool to collect data from a large number of respondents in a limited time (Clark & Creswell, 2010; Zawawi, 2007; Kelley, Clark, Brown, & Sitzia, 2003).

Although, the mail survey method offers advantages, this method suffers from limitations regarding the response rate that can be achieved. This type of survey usually has a low response rate ( Hair *et al.*, 2007; McColl *et al.*, 2001; Watson, 1998;



Babbie, 1995;). However, Hair *et al.*, (2007) pointed out that mail survey method suffers from some limitations related to that questionnaire must be sample, the impossibility of clarifying the points, low response rates, and difficulty in following-up non-response. Nevertheless, there are several methods can be adopted to enhance the response rate. Such methods include well-written cover letters to make the questionnaire attractive, and the use of reminders and telephone calls to respondents (Babbie, 1995; Hair *et al.*, 2007). According to Babbie, (1995) he stated that, the necessary response rate of the analysis of data collected by mail survey is 50%, while 60% is a good response rate, and 70 percent response rate considered as an excellent response rate.

Actually, data collection procedures is one of the most important research phase, however, after the pilot study and the pre-test, data were collected from 16 Libyan banks and its branches in Libya which located in three regions of the country namely; (Tripoli in the West, Benghazi in the East and Sabha in the South). As indicated earlier, the questionnaire of the study consisted of 75 questions (using 7-points Likert scale) and followed the self-administration approach by individuals in all the states where the bank branches were located to ensure a high response rate. Accordingly, the quantitative research approach was very much helpful in translating the information collected using the survey questionnaire or measurement instruments into significant results that were useful for the research development (Cooper & Schindler, 2006). However, along with 15 assistants, the researcher, distributed and retrieved the questionnaire from the mentioned states' respondents within the estimated time of almost three months (Eighty one day) starting from 9<sup>th</sup> July to 28<sup>th</sup> September 2014. On the other hand, due to the recent events after the 2011 revolutions' in Libya, problems and barriers to data collections were expected.

Nevertheless, the insecurity somehow in the country has disturbed the bank employees' regular attendance at work as well as the customers somehow during data collection procedures which were a frustrating but inevitable hindrance. Furthermore, the data collection procedure was costly somehow, as the cost of questionnaire distribution is high in terms of high cost of printing questionnaires and the high cost of transport "movement" due to the long distance amongst the regions in addition to the unstable security situations at that time. However, out of (384) distributed questionnaires, 226 were returned from the mentioned Libyan three states. More details were discussed in the analysis chapter five.

#### **4.9.1.2 Tests of Non- Response Bias**

Existing facts from previous literatures have established that the non-respondents in the most cases differ systematically from the respondents' attitudes, personality, behaviors, motivations and the demographics factor's in the manner of any or even all that might affect the study results (Malhotra, Hall, Shaw, & Oppenheim, 2006). Correspondingly, the response bias has been tested by the use of t-tests in order to compare the similarities amongst the mean, standard deviation and standard error mean of the early and late responses in variables such as gender, income, INT, service quality elements (CARTER model) RO, GS and KU.

Nevertheless, several scholars argued empirically that, late respondents can be used in a set of non-respondents, basically since they couldn't have possibly responded in the case that they were not being given a large scale follow-up approach (Churchill & Brown., 2004; and Malhortra *et al.*, 2006). Furthermore, Malhortra *et al.*, (2006) argued that, for late respondents to standardize this procedure, he sample has divided into two sections: in the early respondents - those questionnaires returned within one

month after the distribution which can be named as (group 1) And late responses to those questionnaires returned after one month from the date of distribution (group 2).

However, from the 384 distributed questionnaires, only 226 respondents have responded to the survey. In actual fact, the data of this research collected during the period from starting from 9<sup>th</sup> July to 28<sup>th</sup> September 2014. Besides, although the questionnaires had been administered in all the three Libyan regions, there were many respondents responded only after many reminders and repeated visits. Following the recommendations of Armstrong and Overton (1977), and Kannan *et al.*, (1999), where if differences between late and early respondent were found to be significant, they may indicate the underlying differences between respondents and non-respondents. Therefore, there was a legitimate concern about whether non-respondents did not respond due to a systematic reason, which might raise a question about the validity of the study's results (Bhattacharjee, 2012).

As Armstrong and Overton, (1977), the study considered last respondents as a prediction of the non-respondents for cases in which there were a priori grounds. All returned questionnaires were divided into two groups: the first group, named as (early respondents), included questionnaires that were returned during a one-month period from the distribution date; and the second group, named as (late respondents), included questionnaires that were returned more than a month after the distribution date.

Based on the above-mentioned facts, the study has classified 100 respondents as initial responses where usable data was 100 with no missing value data. Therefore, the early respondent group contained 100 questionnaires, and 126 respondents as late responses, 3 questionnaires were unusable due to the high level of missing data (more than 10% in each questionnaire). Therefore, the usable late respondents group included 123

questionnaires. The test was conducted for both descriptive and test Levene's for equality variation on the demographic and contents variable. For the demographic variables, the researcher conducted a descriptive test to compare the means, standard deviation and standard error mean between the early and late respondents. However, a non-response bias was tested using SPSS version 21.0.

However, the result showed that there were small deviations between the early and late respondents. Such a result reduced the probability of the existence of a systematic reason for the non-respondents (Armstrong & Overton, 1977; Bhattacharjee, 2012; Roscoe, 1975).

Table 4.15 showed the differences between the means and standard deviations of the answers of the two groups (early and late respondents). Comparing the first and second waves of respondents showed that there were no significant differences between the early and late respondents, which in turn led to the conclusion that non-response bias was nonexistent.

However, the results in below Table 4.15 shows that, the descriptive t-test indicated that there were no significant statistics; which is meant there were no significant differences between each variable and response groups. Therefore, the data is free from response bias. For detail verifications of the descriptive test of non- response bias, Table 4.15 was generated (for more details refer to appendix number 4.3).

Table 4.15  
*Descriptive Statistics of Respondents*

<b>Continuous variables</b>	The date getting the survey	<i>n</i>	Mean	Std. Deviation	Std. Error Mean
INS	Early respondents	100	.5754	.17514	.01751
	Late respondents	123	.4817	.16935	.01527
RO	Early respondents	100	.5483	.20781	.02078
	Late respondents	123	.5054	.22363	.02016
GS	Early respondents	100	2.7968	1.02757	.10276
	Late respondents	123	3.1089	1.04343	.09408

Table 4.15 Continued

KU	Early respondents	100	3.8617	1.13268	.11327
	Late respondents	123	3.5747	1.20745	.10887
CO	Early respondents	100	.6147	.15948	.01595
	Late respondents	123	.4695	.18123	.01634
AS	Early respondents	100	.5710	.20595	.02059
	Late respondents	123	.5066	.24412	.02201
RL	Early respondents	100	.5624	.21272	.02127
	Late respondents	123	.4997	.23812	.02147
TA	Early respondents	100	.5185	.20836	.02084
	Late respondents	123	.5341	.19746	.01780
EM	Early respondents	100	.5306	.16395	.01639
	Late respondents	123	.5155	.15049	.01357
RE	Early respondents	100	.5431	.19886	.01989
	Late respondents	123	.5049	.19689	.01775

Above and beyond, Armstrong and Overton, (1977); Bluman, (2011); Hair, (2007) recommended using the p-value to conclude if there are any differences between two samples. Following this recommendation, an independent-Sample t-test was conducted to examine the differences between the two groups (early and late respondents).

The results of independent-samples T-test exhibited that the *P*-value was greater than 0.001 for all continuous variables Table 4.16 which indicated that there were no systematic differences between the early and late respondents Table 4.16 illustrated that; for more details, refer to Appendix 4.3).

Table 4.16

*Test of Non-Respondent Bias Independent - Samples Test*

		Levene's Test for Equality of Variances		
		F	Sig. P-Value	Df
INS	Equal variances assumed	.819	.366	221
	Equal variances not assumed			208.807
RO	Equal variances assumed	.263	.609	221
	Equal variances not assumed			217.049
GS	Equal variances assumed	.047	.828	221
	Equal variances not assumed			213.057
KU	Equal variances assumed	.001	.979	221
	Equal variances not assumed			216.485
CO	Equal variances assumed	1.880	.172	221
	Equal variances not assumed			219.589
AS	Equal variances assumed	5.535	.020	221
	Equal variances not assumed			220.684
RL	Equal variances assumed	2.823	.094	221
	Equal variances not assumed			219.011
TA	Equal variances assumed	.868	.353	221
	Equal variances not assumed			206.858

Table 4.16 Continued

<b>EM</b>	Equal variances assumed	2.849	.093	221
	Equal variances not assumed			203.574
<b>RE</b>	Equal variances assumed	.005	.946	221
	Equal variances not assumed			210.951

Therefore, resulting from the above procedure and test, the study tends to conclude that there was non-response bias that could significantly affect the study's ability to generalize its findings. The above result has therefore given this research the opportunity to utilize the entire 226 responses in the data analysis.

#### **4.9.1.3 Data Analysis Procedure**

For the identification of data entry errors which can happen due to several reasons, data screening was needed and already conducted which encompassed with testing of missing data entry, validity, descriptive data and response bias. For that matter, Statistical Package for the Social Sciences (SPSS version 21.0) software used to conduct some of the statistical tests. However, the final phase used the Structural Equation Modeling (SEM); AMOS Software (version 21.0) to analyze the data and to test the hypotheses.

##### **4.9.1.3.1 Data Entry**

In the direction of performing this phase, the returned questionnaires were entered into the SPSS version 21.0 for analysis, which also involving the steps of data editing and coding. However, the purpose of conducting data coding is the systematic storage and identification (Zikmund & William, 2003). In the current research, data coding is conducted to make it convenient for data entry in SPSS. Data coding on the other hand, is carried out by the relying on appropriate character symbols (mostly numerical symbols) on the data. For the convenience and appropriateness, the data were edited prior to entering into the software.

#### **4.9.1.3.2 Date Screening**

After entering the data, the data screening method is needed, which is required screening, where it is the process of ensuring the data is useful, reliable and valid for testing causal theory and ready to go before performing further statistical analyses, however, this pressure might ensure that no ambiguous data characteristics which usually negatively impact the outcomes. To conduct this phase, it's requires various steps such as (Treatment of Missing Data, Outlier Detection, Assessment of Normality, Linearity and Homoscedasticity Status, and Multicollinearity). However, each and every one of these steps is discussed in the following sections.

#### **4.9.1.3.3 Missing Data**

One of the most important stages in the data screening is identifying and treatment of the missing data. Many studies have reported that the missing data are a matter of great concern to many researchers, and have the ability to influence the results of empirical research in a negative way (Cavana *et al.*, 2001). However, usually returned and obtained data is incomplete which can be owing to the many reasons involves in the completion of the questionnaire. In many cases for instance, respondents often refuse to reply to personal questions, (e.g. the income questions, age among others and so on).

Moreover, some respondents leave unanswered questions due to their ignorance concerning of the topic. Kline, (1998) reported that missing data phase can be due to these reasons. However, Hair, (2010) stated that besides deleting the missing data values, researchers may also change those with the mean value in case the missing data value should not exceed five (5 percent) out of the total data needed.

Nevertheless, conduct and treatment of these missing data values are very essential in the analysis using AMOS as one of the statistical instruments for analysis. As a matter of fact, in many cases AMOS will not run the data where is whichever missing value (Hair *et al.*, 2010). Unlike SPSS, which can be used as the general treatment of missing data by replacing missing values with a mean or median of nearby points or via linear interpolation. Therefore, the missing values test by using the SPSS version 21.0 was conducted.

However, missing data values in number of tenth (10) questionnaires in the present research were replaced with the median of nearby values, and that is due to the missing data value which was found to be missing in a totally random manner (Hair *et al.*, 2006; Pallant, 2005; Hawkins & Merriam 1991).

#### **4.9.1.3.4 Outlier Detection**

After testing and conducting the missing test data, detection of outliers step is followed. Detection of outliers is a vital step that limits incorrect data entries as this could lead to Outliers. Bryne (2010), reported that, statistically evidence has confirmed that outliers data as any observations which are numerically separated or distant at any rate of comparing it to the remnant of the dataset. Consistent with this there the existing literatures have advocating different methods for the detection of outliers values within any particular research between which includes categorizing the data point grounded on the detection of the Mahalanobis distance values estimated (Hau & Marsh. 2004; Hair *et al.*, 2010).

Part of the constructive argument in favor of the outlier values treatments is on the basis of Mahalanobis distance is that, it serves as an effective method for the detection of outliers values through the development of some predetermined threshold that will



help determine whether the points can be classified as an outlier values or not (Gerrit *et al.*, 2002). For the purpose of getting an accurate result, the table of chi-square statistics has been used, it is in order to reach the threshold value to determine the optimum values for the current empirical research. This decision is consistent with the arguments Hair *et al.*, (2010), which stressing on the need to create a new variable in the “response”, therefore, numbering of new variable or column starting from the beginning to the end created. Therefor, by running a simple linear regression through the selection of the number of newly established response as the dependent variable and choose all the measuring elements regardless of the demographic variables as independent variable Mahalanobis distance was simply detected and achieved. However, by conducting this procedure, this technique has helped to generate a new output column called (Mah1) which was a comparison between the chi-square set forth in the table and new director of Mahalanobis distance recently.

However, according to Hair, (2010), outliers may also stem from the fact that observations selected by respondents are more to the extreme in their combination of values throughout the variables. However, to find out the outliers it often detected through an evaluation of Mahalanobis distance, where; it is the valuation type that is a standardized of Euclidean distance ( $D^2$ ). Besides, the scales are based on standard deviations and it standardizes the data through adjustments of variable’s correlations (Hair *et al.*, 2006). Mahalanobis distance analysis might be conducted through SPSS in regression or from SEM. The outliers’ detection has its basis on where; when  $D^2$  values are more than the chi square values ( $X^2$ ) of the number of items used.

However, in the current research, (75) items were coded into the SPSS 21.0 program, and any item containing a  $D^2$  score higher than the chi-square value of 75 items

( $\chi^2=118.60$ ) detected to be contains of multivariate outlier case (Hair *et al.*, 2006). Based on that, the current research identified a number of (3) outliers' respond/cases of the total 226 respondents were examined and they fall under the outliers for the reason that, their Mahalanobis distance was higher than the cut-off values as given in the table of ( $\chi^2$ ) chi-square statistics which is (118.60) that related to 7 measurement items of 118.60 compared with the Mahalanobis distance ( $D^2$ ). However, any value more than ( $\chi^2$ ) considered as outliers cases and deleted (Hair *et al.*, 1998, 2006; Tabachnick & Fidell, 2001).

However, as mentioned above, three cases/respondents were found to be outliers, subsequently, these three cases have been deleted from the dataset. Sequel to the treatment of these outliers, the final regressions in this study was using the remaining 223 samples in the data, Figure 4.17 displays the residuals statistics regarding outlier cases test (for more details refer to Appendix 4.5).

Table 4.17  
*Summary of Outlier (Residuals Statistics <sup>a</sup>)*

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>n</b>
Predicted Value	-8.21	237.50	112.00	51.192	226
Std. Predicted Value	-2.348	2.452	.000	1.000	226
Standard Error of Predicted Value	5.602	42.777	27.536	4.449	226
Adjusted Predicted Value	-59.48	251.62	111.41	56.759	226
Residual	-99.622	131.085	.000	39.269	226
Std. Residual	-2.071	2.726	.000	.816	226
Stud. Residual	-2.501	3.591	.004	1.009	226
Deleted Residual	-145.208	227.480	.592	60.622	226
Stud. Deleted Residual	-2.547	3.745	.004	1.017	226
Mahal. Distance	2.016	174.628	73.668	22.269	226
Cook's Distance	.000	.126	.008	.013	226
Centered Leverage Value	.009	.787	.332	.100	226

- a. Dependent Variable: Responders ID Which all are Libyan Citizens
- b. MAHAL DISTANCE > 118.60 WERE DELETED (3 CASES DELETED) valid responders no 223

The total usable responses numbered to 226 with three missing data (replacements with median), and three were outliers' (deleted cases). Hence, the final clean data for analyses numbered 223 as demonstrated in detail in Table 4.18.

Table 4.18  
*Final Usable Data After Data Screening*

<b>Description</b>	<b>Total</b>
Total questionnaires	226
Missing data (replacements with median)	3
outliers (deleted cases)	3
<b>Total Final clean and usable questionnaires for analysis</b>	<b>223</b>

#### **4.9.1.3.5 Normality**

Hair *et al.*, (2006), claimed that normality is defined as “a sort of the data distribution of the individual metric value along its corresponding normal distribution”. However, abnormal data might be determined in many ways. Hair *et al.*, (2006) presented the detection of univariate normality through skewness and kurtosis. Skewness which refers to the irregularity of distribution; for instance, a variable with a mean located not in the center of distribution, while kurtosis refers to the distribution peakedness. However, a normal distribution occurs when the value of skewness and kurtosis is zero (Tabachnick & Fidell, 2001). Skewness is verified through the comparison of the distribution to a normal distribution. If the distribution has a few large values and ends to the right then distribution is considered to be positively skewed.

However, when the distribution has few small values and ends to the left, then it is considered to be negatively skewed. According to Hair *et al.*, (2006) if the *z*-skewness of the distribution lies external to the range of -1 and +1, then the distribution is said to be substantially skewed. Then again, *z*-kurtosis is the measure of the peakedness or flatness of distribution and similar to skewness, it is verified through its comparison with a normal distribution. A relatively peaked distribution is presented by a positive value while a flat one is presented by a negative value (Hair *et al.*, 2006). Additionally, according to several researchers, data are distributed normally if the *z*-value (CR) skewness  $< \pm 3.0$  and the *Z*-value kurtosis  $< \pm 7.0$  (Chou & Bentler 1995; Hu, Bentler & Kano, 1992; Ghazali, Fuad & Seti, 2005).

#### 4.9.1.3.5.1 Test of Normality

The data were tested for normality by producing the z-score of an individual observed variable by using the SPSS. All values below +2 are considered as normal data as recommended by (Hair *et al.*, 2010). Therefore, those values of z-score, which detected to be above +2 were transformed. The data showed adequate values for normality (for more details refer to Appendix 4.4).

However, to prevent the occurrence of this abnormality in the current study, the researcher has conducted necessary data cleaning to determine the z-score of each individual item and transform them through *cdfnorm* in SPSS 21.0. Importantly, after this transformation; both the critical ratios from the skewness and kurtosis in this study fall within the suggested standards or  $CR < 2/3$  and  $CR < 7$ , a strong evidence that indicates normality of the data. Similarly, the Kolmogorov-Smirnov tests were conducted in this study which also provided evidence of normality of the data used in this study.

Ensuing the careful assessment by using the AMOS package (SEM 21.0), the normality values of the all related items displays that CR-skewness and CR-kurtosis are within the adequate range of normality i.e., -3.0 to 3.0 (Hair, *et al.*, 2006). Therefore, transformation remedy was required for certain items. Nevertheless, to ensure that the data is distributed normally, more assessment was carried out over and done with the residual analysis by using the expected normality box plot for the regression residuals via SPSS 21.0 version. As mentioned above, this test shows that the data is normally distributed (for more details refer to Appendix 4.4).

#### **4.9.1.3.5.1.1 Linearity and Homoscedasticity**

It is important to test for linearity and homoscedasticity as correlation also represents the linear relation between variables. Nonlinear impacts are generally not represented in the value of the correlation (Hair *et al.*, 2006). The relation presentation between two metric variables has a combined value of every possible observation in the two dimensional groups through the scatter plot. Hence, the aim of a scatter plot is to present the linear dotted line. According to Ghozali *et al.*, (2005), when the error term variance is constant in the entire varieties of predictor variables, the collected data are referred to have homoscedasticity. In addition, there are concentrations attributed to the dependent variables showing equal variance in a transverse level. In the independent variables range, homoscedasticity is presented by a cloud of dots. On the other hand, non-homoscedasticity can be specifically described as a pattern having a funnel-shape that presents an increase in error in direct relation to an increase in the dependent variables.

#### **4.9.1.3.5.1.2 Evaluating the Assumptions of Linearity Relationship**

By examining the scatter plot residuals using SPSS version 21, the results indicate a straight-line associated with predicted dependent variable scores and mean of intention in turn, did not show any support for non-linearity. Consequently, there was no proof to challenge the linearity assumption of the intention to subscribe the Islamic banking system INT as shown in Figure 4.2.

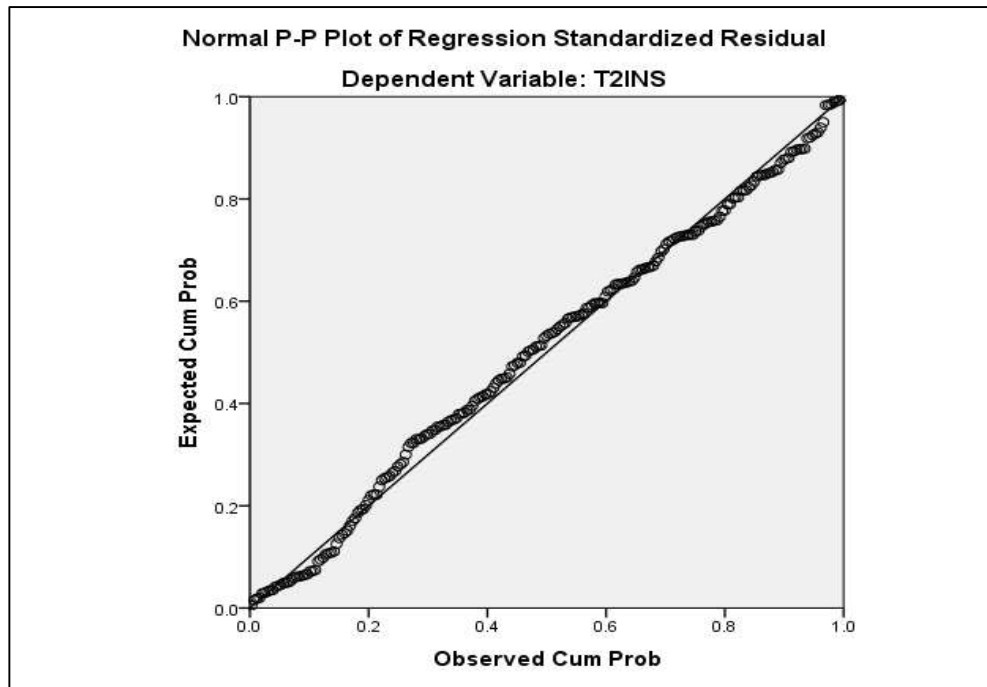


Figure 4.2  
*Linearity Assumption*

#### 4.9.1.3.5.1.3 Evaluating the Assumption of Homoscedasticity

The presence (existence) of homoscedasticity in a research means that the variance of errors in the analysis is the same across all its levels in the independent (exogenous) variables (Hair *et al.*, 2006). There was no homoscedasticity obtained in the estimates of its correlation results as obtained in the structural analysis in this current study as showed in Figure 4.3. None of the independent (exogenous) variables have irregular estimates, therefore, confirming non-existence of any distortions or probability of committing Type 1 error. For more details of the result of homoscedasticity of other endogenous variables, refer to Appendix 4.5).

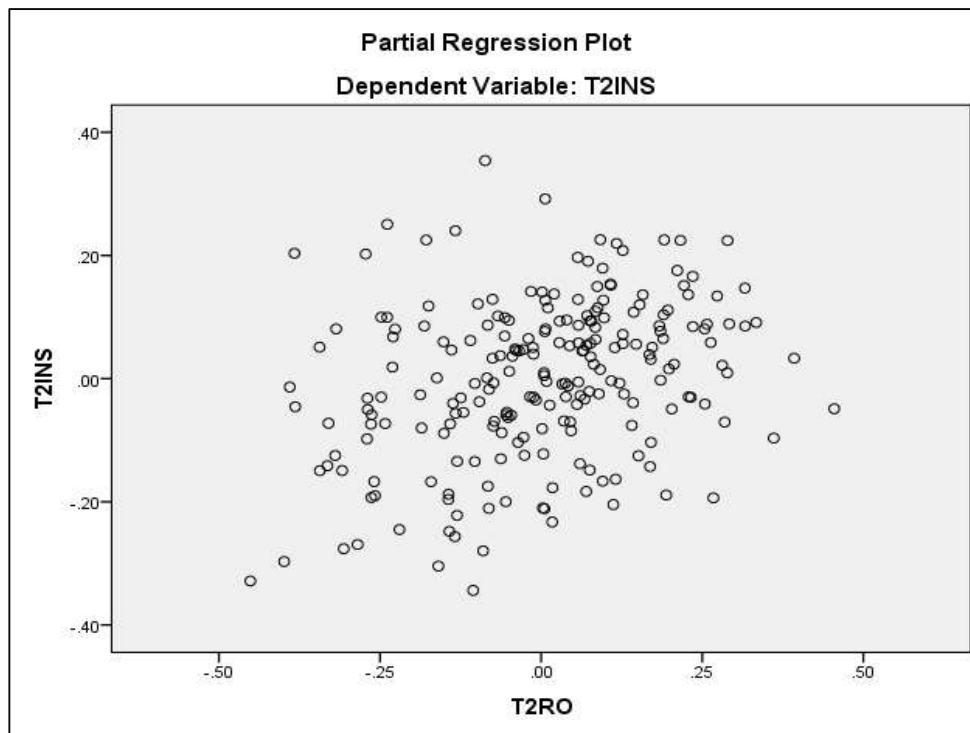


Figure 4.3  
*Homoscedasticity*

Moreover, the finding of the homoscedasticity test through scatter plot diagrams in SPSS 21.0 of standardized residuals shows that homoscedasticity exists in the set of independent variable and the variance of the dependent variable.

Furthermore, a visual inspection of the distribution of residuals suggested an absence of homoscedasticity as shown in Figure 4.3. The result of homoscedasticity of other endogenous variables can be found in Appendix 4.6.

#### **4.9.1.3.6 Test of the Reliability**

The previous relevant statistical literature revealed that despite the importance of Cronbach's alpha in measuring the internal consistency among items, this index has been reported to have many limitations. One of these limitations was that, it tends to underestimate validating of the scale (Steenkamp & Van Trijip, 1991). Besides that, it assumes the equal reliabilities of all items, but this assumption is rarely true (Bollen,

1989). However, to ensure the reliability of the data, the current research conducted and used two types of reliability test.

#### **4.9.1.3.6.1 Cronbach's Alpha and Composite Reliability**

The reliability test Cronbach's Alpha through SPSS version 21.0 conducted and was confirmed to be above the recommended values of 0.60, acceptable value as stated and suggested by Sekaran (2003), and Hair *et al.*, (2006). Where, the second reliability test was the Composite Reliability (CR) was conducted through SEM version 21.0 which was for the reason that even though Cronbach's Alpha is commonly utilized as a reliable indicator, it has been reported to underestimate (Bollen, 1989; Raykov, 1997a; & Chin, 1998a). The issue stems from the underlying assumption for Cronbach's Alpha that all measured items are equally weighted or the path coefficients from the latent factor to the measured items are expected to be equal. If the value fails to meet the assumption, the Cronbach's Alpha underestimates the reliability.

However, for alternate options, Werts, (1974), created the CR to assess the reliability of a set of indicators. CR relaxes the rationale behind the assessment of Cronbach's Alpha and it is a nearer approximation under the assumption that the parameter estimates are accurate (Chin, 1998) and has been since viewed as a superior measurement compared to Cronbach's Alpha (Fornell & Larcker, 1981).

However, as shown in the existing literatures, this study has made use of content reliability to determine if the hypothesized items are actually measuring their constructs or not (John & Reve, 1982; Guliksen, 1993). To achieve this, the researcher conducted a critical assessment of all the items' reliability to primarily examine loadings or the correlations of their measures with the construct with which they were



hypothesized. Theoretically, a cronbach's alpha of a loading 0.60 has been suggested by (Hair *et al.*, 2006).

Nevertheless, Bagozzi and Yi (1991), and Holme-Smith (2001), suggested that the CR value should not be less than 0.60. On the other hand; other authors see that, the CR value has to be high conservative benchmark of 0.70 (Nunnally & Bernstein, 1994).

However, these points were argued based on the fact that the internal consistency measures of a cronbach's alpha primarily represent the extents that the hypothesized items actually converge to measure the variable of interest. The CR is the most commonly utilized indexes for the estimation of reliability in SEM analysis.

Therefore, for the CR calculation for this research, the following formula as suggested by previous researches (Kearns & Lederer, 2003; Fornell & Larcker, 1981; Hair *et al.*, 2006) used in order to calculate the target CR:

$$\text{Composite reliability (CR)} = \frac{S/ \Sigma (\text{standardized loading/factor loading})^2}{S/ \Sigma (\text{Standardized loading/factor loading})^2 + S/\Sigma \epsilon_j}$$

**Where:**

$\epsilon_j$  = *Is the error associated with the individual indicator variables*

CR = *Composite reliability,*

$S/\Sigma$  = *Summation, and*

$\epsilon_j$  = *Standardized error.*

However, the following Table 4.19 displays the outcomes of the Cronbach's alpha and composite reliability.

Table 4.19

*Reliability Cronbach Alpha and Composite Reliability of the actual data (main study)*

<b>Construct's name</b>	<b>Code</b>	<b>No. Of items</b>	<b>Deleted Items</b>	<b>Finalized Reliability <math>\alpha</math> =223 (Main study)</b>	<b>Composite Reliability (CR) =223 (Main study)</b>
<b>Intention to subscribe IBS</b>	IN	11	Nil	0.839	0.837
<b>Religious obligation</b>	RO	7	Nil	0.877	0.871
<b>Government support</b>	GS	11	Nil	0.860	0.908
<b>Knowledge &amp; Awareness</b>	KU	5	Nil	0.755	0.747
<b>Compliance</b>	C	5	Nil	0.714	0.704
<b>Assurance</b>	AS	7	Nil	0.885	0.886
<b>Reliability</b>	R	5	Nil	0.801	0.813
<b>Tangibility</b>	T	7	Nil	0.813	0.837
<b>Empathy</b>	E	9	Nil	0.708	0.713
<b>Responsiveness</b>	RE	8	Nil	0.819	0.830

Nevertheless, according to Diamantopoulos and Sigauw (2000), they suggest that, the threshold for CR indices should be set at 0.60. Therefore, constructs that higher than this value are considered to have a good CR. In the current research, all latent variables in both cases have achieved the mentioned value. The reliability and internal consistency of an item can be judged by a set of rule of thumb which includes: alpha level > 0.90 should be categorized as being excellent, while ones that are > 0.80 considered to be good, > 0.70 should be acceptable, > 0.60 should be categorized as questionable, > 0.50 are poor for scientific research, < 0.50 are generally unacceptable for academic purposes (John & Reve, 1982). The results above have shown that the measurement items both at the pilot and main study are all good, where the Cronbach's alpha value ranged from 0.708 to 0.885, while CR values ranged from 0.704 to 0.908 and both values for all variables were greater than the recommended value of more than 0.60 (Hair *et al.*, 2010).

However, the result of the reliability values indicated in the above Table 4.19, shows that all of the constructs generally exhibited an acceptable level of reliability Cronbach's Alpha with values that are suggested, 0.60. These results further confirm

the fitness of the data for the measurements in this study. On the other hand, Table 4.19 shows the calculation of the CR and the descriptive statistics of indicators and their reliable results for all the constructs.

Part of the existing literatures in support of these results are that well-structured items that are measuring any single construct would statistically exhibit a higher and better Cronbach's alpha's results, while those items that have low internal consistency measures of less than 0.60 in a construct might theoretically indicate a poor definition of the construct (Hair *et al.*, 2006).

#### **4.9.1.3.7 Validity Test**

The researcher conducted validity tests, which is a step where research instrument measures the relevant construct in the study. However, the research tool, "Questionnaires" used in the survey to be reliable even if it is not valid, although it cannot be valid if it is not reliable. According to Hair, (2006) validity is the ability to describe the concept through measurement, while reliability presents the consistency of the measurement. However, there are two forms of validity; content (face) and construct validity and in turn, however, construct validity has two sub-types; convergent and discriminant validity. For the purpose of ensuring the validity of the research's instrument, these two types of validity test have been conducted which explained in the following sections:

##### **4.9.1.3.7.1 Discriminant Validity**

The discriminant validity shows the level to which a measure is distinct from other measures that are not related to the measurement of a particular construct (Nunnally, 1970). Hence, low correlations among variables show the existence of discriminant validity which can be calculated through the Average Variance Extracted (AVE) for

each construct exceeding the squared correlation between a particular construct and any other (Fornell & Larcker, 1981; Bagozzi & Yi, 1991; Holme-Smith, 2001). However, Hatcher (1994, p. 331), claimed that for small sizes, the estimate is often lower than 0.50 and reliabilities are acceptable. To satisfy the basic requirement that is guiding discriminant validity, the AVE of any two constructs that is measured must be greater than the square of correlations that exist between these constructs (Formell & Larcker, 1981). Nevertheless, AVE refers to the proportion of variance explained by the measurement errors. Values range from 0 and 1, AVE should exceed 0.5 to suggest the adequate convergent validity (Bagozzi & Yi, 1991; Fornell & Larcker, 1981).

Therefore, the AVE value of at least 0.5 indicates sufficient convergent validity, indicates that a latent variable is able to explain more than half of the variance of its indicators on average (Holmes-Smith, 200; Hatcher 1994).

In other words, AVE is computed as the total of all squared standardized factor loading (square multiple correlation) divided by the number of items meaning that is the average squared completely standardized factor loading or average commonality. However, AVE is reached by using the following calculating formula suggested by (Kearns & Lederer, 2003):

$$\text{Variance Extracted (VE)} = \frac{(S) / \Sigma(\text{standardized Square Multiple Correlation}) \text{ SMC}}{(S) / \Sigma(\text{Standardized Square Multiple Correlation}) \text{ SMC} + \Sigma \epsilon_j}$$

**Where:**

- SMC = Estimate of Standardized squared multiple correlation = SMC
- $\Sigma/S$  = Summation,
- $\Sigma \epsilon_j$  = Standardized error
- S = Sum of stander error in the regression weights table

Therefore, by using Microsoft Excel, AVE has been calculated by following and applying the above mentioned formula, however, the cut-off value of AVE used for this study is 0.50 (Hair *et al.*, 1998), where reliable constructs should exceed this value, while with Cronbach's alphas researchers usually use a cut-off value of  $\alpha = 0.70$  for studies in advanced phases (a1), and for exploratory studies alphas ranging from 0.50 to 0.60 (a2) are considered adequate (Nunnally, 1978; Vande Ven & Ferry, 1979; Dimovski, 1994, p.103).

Nevertheless, for the present study, all of the constructs attain the suggested cut-off values by using all of the three measures of construct reliability. Table 4.20 summarized the calculation of the composite reliability, maximum shared variance, variance extracted (VE/AVE) through the Squared Multiple Correlation (SMC) and standard error (S.E):

Table 4.20  
*Summary of AVE, Cr and MSV of Constructs*

<b>Variable name</b>	<b>CR</b>	<b>AVE</b>	<b>MSV</b>
Intention (1)	0.837	0.992	0.539
Religious obligation (2)	0.871	0.883	0.346
Government support (3)	0.908	0.505	0.099
Knowledge & Awareness (4)	0.747	0.592	0.144
Compliance (5)	0.704	0.522	0.504
Assurance (6)	0.886	0.879	0.832
Reliability (7)	0.813	0.853	0.812
Tangibility (8)	0.837	0.816	0.757
Empathy (9)	0.713	0.511	0.753
Responsiveness (10)	0.830	0.642	0.553
Overall SERVQUAL	0.955	0.837	0.539
	<b>CR &gt; 0.7</b>	<b>AVE &gt; 0.5</b>	<b>MSV &lt; AVE</b>

\**AVE* = Average Variance Extracted

\**CR* = Composite Reliability

\**MSV* = Maximum Shared Variance

However, the Average Variance Extracted (AVE) Table Matrix of Exogenous Variables displayed below which is referred to (AVE1+ AVE 2) /2.

This is Means, the Average Variance Extracted (AVE) for variable one + Average Variance Extracted (AVE) for variable two divided by 2 as demonstrated in Table 4.21.

Table 4.21  
*Average Variance Extracted Matrix*

Variable name	1	2	3	4	5	6	7
<b>Knowledge &amp; Awareness</b> (1)	1.000						
<b>Compliance</b> (2)	(1+2)/2= 0.557	1.000					
<b>Assurance</b> (3)	(1+3)/2= 0.736	(2+3)/2= 0.701	1.000				
<b>Reliability</b> (4)	(1+4)/2= 0.723	(2+4)/2= 0.688	(3+4)/2= 0.866	1.000			
<b>Tangibility</b> (5)	(1+5)/2= 0.704	(2+5)/2= 0.699	(3+5)/2= 0.848	(4+5)/2= 0.835	1.000		
<b>Empathy</b> (6)	(1+6)/2= 0.552	(2+6)/2= 0.517	(3+6)/2= 0.695	(4+6)/2= 0.682	(5+6)/2= 0.664	1.00	
<b>Responsiveness</b> (7)	(1+7)/2= 0.617	(2+7)/2= 0.582	(3+7)/2= 0.761	(4+7)/2= 0.748	(5+7)/2= 0.729	(6+7)/2= 0.577	1.00

However, the discriminant validity is demonstrated as the Average Variance Extracted (AVE) value more than the squared correlations for each set of construct. Nevertheless, it is observed from the extracted result table of squared correlations for each set of construct displayed in Table 4.22 and the AVE constructs values in below Table 4.22 that, all of AVE constructs values were found to be more than the values of the squared correlations for each set of construct.

Table 4.22  
*The Correlation and Correlation Square Matrix Among Exogenous Variables (Hypothesized Model)*

AVE	KU	CO	AS	RL	TA	EM	RE
	1	2	3	4	5	6	7
KU (1)	0.592	0.257**	0.037	0.005	0.037	0.066	0.105
CO (2)	0.066049	0.522	0.439**	0.401**	0.396**	0.337**	0.375**
AS (3)	0.001369	0.192721	0.879	0.724**	0.584**	0.483**	0.587**
RL (4)	0.000025	0.160801	0.524176	0.853	0.656**	0.563**	0.627**
TA (5)	0.001369	0.156816	0.341056	0.430336	0.866	0.628**	0.645**
EM (6)	0.004356	0.113569	0.233289	0.316969	0.394384	0.585	0.702**
RE (7)	0.011025	0.140625	0.344569	0.393129	0.416025	0.492804	0.642

*KU= Knowledge & Awareness, CO= Compliance; AS= Assurance; RL=Reliability; TA= Tangibility; EM= Empathy; RE= Responsiveness*

However, Tables 4.22 shows that, the square root of the AVE for all given variables were found to be greater than the absolute values of the standardized correlation square of these variables with any other construct in the analysis ( $AVE > \text{correlation square}$ ). Therefore, discriminant validity was reinforced and hence all variables were supported of the discriminant validity.

In this study, the variance value extracted for all the constructs explained 50 percent or more of the variance, and ranged from 0.879 to 0.522, which met the recommendation that VE/AVE value should be at least 0.50 for each construct (Thompson & Higgins, 1995; Bagozzi & Yi, 1991; Holmes-Smith, 2001). Moreover, all of the research constructs had a correlation value less than the recommended cutoff of 0.80 (Sekaran, 2003). The below Figure 4.4 displays the CFA For Exogenous hypothesis model.

The result of the square root of the AVE for each construct was greater than the absolute values of the standardized correlation square of the given construct with any other construct in the analysis ( $AVE > \text{correlation square}$ ). Thus, discriminant validity is supported and, therefore, all constructs used for this study support discriminant validity.

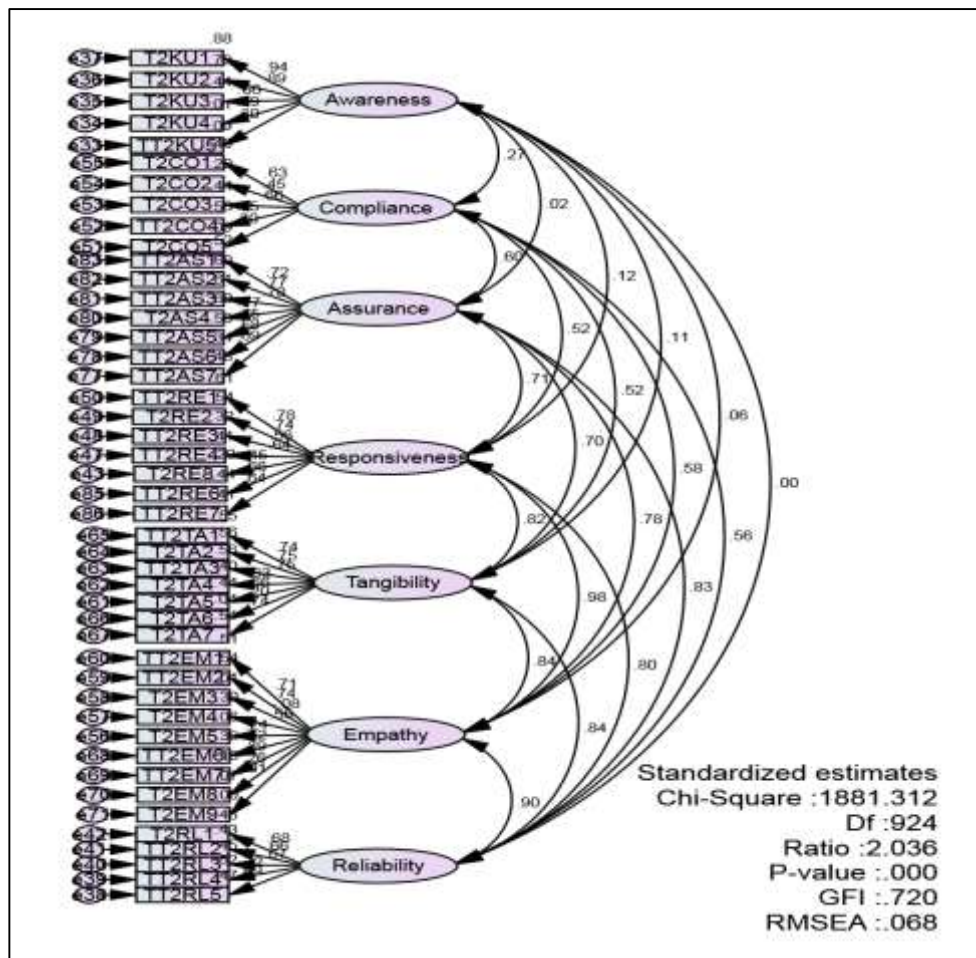


Figure 4.4  
 CFA for Exogenous Hypothesis Model

#### 4.9.1.3.7.2 Convergent Validity

Following the suggestions of Formal and Larcker, (1981), and Hair, (2006), this research has assessed the convergent validity with the use of Cronbach's alpha for each construct and their composite reliability score. Hair, (2006) argues that 0.60 is an acceptable level benchmark for accepting the cronbach's alpha and composite reliability of a construct which have been illustrated in earlier sections.

#### 4.9.1.3.7.3 Content (Face) Validity

Content validity presents the level of connections between the chosen items to result in a summated scale and conceptual definition. It is linked to the subjective agreement by the professionals stating that the scale's purpose is to reflect what it is expected to



measure in a rational way. However, for the current research, the measurement scales chosen along with its items were examined by five academics from UUM (Universiti Utara Malaysia); along with the above, nine experts and lecturers from Sabha University, Benghazi University and Tripoli University and two ex-bank chairmen also had a hand in examining the scales. However, all of them have good knowledge in the research field and banking.

Modifications obtained from the feedback of the above experts were applied to the questionnaires. Some questions regarding demographic profile and number of questions were changed. Hence, it can be stated that content validity of the research is confirmed and backed by comprehensive and extensive literature review.

#### **4.9.1.3.7.4 Construct Validity**

This type of validity refers to the level to which a set of measured variable represents the theoretical latent construct which it has been originally designed to measure. It presents the effectiveness of the process to achieve results through the use of measure fit related to theories in which the test was initially created for (Malhotra & Grover 1998).

However, the current study made uses of two types of statistical validity tests, firstly by using SPSS and then SEM analysis: convergent validity was conducted essentially in the measurement model as the first type of validity tests to determine if the indicators in a scale load together on a single construct, while the discriminate validity test is the second type of validity to verify if the items developed to measure different constructs are definitely evaluating different constructs.

It is important for the researcher to verify the construct and variables validity of any research and relate it to the hypothesized concept and the situation is such that, the

higher construct validity is used the higher validity is constructed will obtain (Malhotra & Stanton, 2004).

#### **4.9.1.3.8 Goodness of Fit Index (GOFI)**

Goodness of fit is the 'the degree to which the actual or observed input matrix (covariance or correlations) is predicted by the estimated model (Hair *et al.*, 2006, p. 580). Generally, according to Ghazali *et al.*, (2005) and Hair *et al.*, (2006), there are three major types of GOF indicators, namely: absolute fit measure, incremental fit measure and parsimonious fit measures.

However, the first step involves the determination of chi-square ( $X^2$ ) statistic, chi-square per degree of freedom ratio ( $X^2/DF$ ) and the Root Mean Square Residual (RMSR) which represent absolute indices pinpointing the model's ability to remake the actual covariance matrix. With a more minimal ( $X^2$ ) statistics with significant level at 0.05, 0.01, and 0.001, the better will be the fit between the proposed model and covariance and correlation validating the null hypothesis of the covariance matrix equality (Basselier, Benbasat & Reich, 2003; Hair *et al.*, 2006).

The ratio ( $X^2/DF$ ) is considered to be one of the indices that require three or less value for a suitable model (Kline, 1998). Additionally, as previously mentioned, contrary to the recommendation of most researchers, James, Mulaik and Brett (1982) which stated that, the ratio should be between 2 and 5 but should not exceed 5 (Hair *et al.*, 2006). The Root Mean Square Residual (RMSR) is an index measuring the average difference between the rudiments in the sample and the hypothesized covariance matrices and for acceptability, a standardized RMSR should not exceed 0.10 (Segars & Grover, 1993).

Second, some incremental indices of the proposed model in terms of null model are a single factor model having no measurement error which expects that all covariance are

0 – these are the goodness of fit index and adjusted goodness of fit index. They are used to measure the amount of variances and covariance in the model. Normed Fit Index represents the improvement in the fit of the hypothesized model when compared to the null model. Other indices such as the Incremental Fit Index (IFI) and the Tucker-Lewis Index (TLI) examine the parsimony between the null model and the proposed model in terms of the comparison of the level of freedom.

According to Bentler (1990), some of the above indices such as the NFI undervalue the fit in small samples and came up with the Comparative Fit Index (CFI) an index not as reactive to sample size. The CFI compares the hypothesized model to the best fit model and the result is the closer the value of the above indices to 1, the more presentation of fit there is.

It was also revealed that if the GFI, AGFI, NFI, TLI and CFI value are over 0.90, they are considered good. If the values range from 0.80 - 0.90, they are considered moderate, and based on (Bentler & Bonett, 1980), the model is acceptable.

Third, to examine the model fit in relation to the number of estimated coefficients required to reach the level of fitness, parsimonious fit measures are utilized. The Root Mean Square Error of Approximation (RMSEA) provides the measurement of the discrepancy for every degree of freedom. This value takes into consideration the goodness of fit of the model with the range of acceptable values lying between 0.01 and 0.08 (Hair *et al.*, 2006). The validity of the fact is gauged as; the lower the value the better will be the fit (Browne & Cudeck, 1993).

While some researchers state that the value of 0.08 and greater is a reasonable error of estimation, others (Rai, Lang & Welker, 2002; Chou, Chang & Tsai, 2007) stated that, for instance where samples are low, the RMSEA should not be over 0.10 for it to be

acceptable. However, the proposed model failed to meet the requirements of the data collected in an accurate way, if the p-value of  $X^2$  is significant while it does so if p-value of  $<0.05$  is achieved.

According to Byrne, (2001), a progressive debate is ongoing regarding whether a model having a significant  $X^2$  statistic must be viewed as valid. The measurement of data through SEM generally takes place through the deployment of goodness of fit (GOF) measures. The CFA comprises of important functions that may also be used. The functions comprise of the examination of the loading factors in each dimension in forming a variance, the confirmation of the instruments that are linked to the latent variables, the estimation of the measurement error in the framework and finally the validation and generation of the framework.

Hence, CFA is frequently used to verify whether the set of factors and the loading of constructing items validate the expected requirements needed to measure what actually measures the scale. Based on the study by Bollen (1989),  $X^2$  test,  $X^2/DF$ , RMSR, GFE, IFI, TLI, NFI, AGFI, and RMSEA are the most often achieved measures and hence, the present study makes use of them as goodness of fit to measure the entire variables as listed in Table 4.23.

Table 4.23  
*Recommended Values of Measurement for all Exogenous and Endogenous Variables*

<b>Indicators</b>	<b>Threshold value</b>
<i>Absolute Indices:</i>	
<b>Ratio/Comindf</b>	Less than 2
<b>RMSR</b>	Less than 0.10
<i>Incremental Indices:</i>	
<b>GFI</b>	0.90 and above
<b>IFI</b>	0.90 and above
<b>CFI</b>	0.90 and above
<b>TLI</b>	0.90 and above
<b>NFI</b>	0.90 and above
<b>AGFI</b>	0.90 and above
<i>Parsimonious Indices:</i>	
<b>RMSEA</b>	Less than 0.08
<b>P-value</b>	More than 0.05

Source: Hair *et al.*, (2010) and Kline, (2011)

#### **4.10 Correlation Analysis**

In order to investigate the existence of a linear relationship between the variables of study, correlation statistical method test has been conducted and reported in the following chapter five (Bluman, 2011).

Bluman, (2011), added that this relationship can be a simple between one independent variable and one dependent variable, or it can be a multiple between more than one independent variable and one or more dependent variable. Correlation coefficients are usually used to determine either the weakness or strength of the linear relationship between two variables.

This linear relationship can be either positive or negative. One of the most commonly used methods for identifying the correlation coefficients between two variables is the Pearson Product Moment Correlation Coefficient ( $r$ ).

It has a range of values between +1 and -1. If the value of  $R$  is close to +1 a strong positive relationship exists between the two variables, and when this value is close to -1 a strong negative relationship between the two variables exists. However, if  $R$  is equal to zero, it indicates to no association between the existing variables.

According to Hair *et al.*, (2007), several assumption must be met if the researcher wants to use  $r$  in investigating the correlations between the variables of the study.

These assumptions are that:

1. The variables should be interval or ratio data,
2. The relationship under examination should be linear, and
3. The variables under examination should be from a normally distributed population.

All these assumptions are met in this current research's dataset because all independent and dependent variables are measured by the interval scale and both linearity and normality assumptions have been met as was discussed previously. Thus, using the Pearson product moment correlation coefficient is appropriate in this study.

To determine and interpret the strengths of the correlations between two variables, (Cohen, 1988) provided a guideline the researcher can use for the purpose of interpreting the relationships between the different variables as it shows in following Table 4.24.

Table 4.24  
*Guideline of Correlation Strength*

<b><i>r</i> values</b>	<b>Strength of relationship</b>
$r = +.10$ to $.29$ or $r = -.10$ to $-.29$	Small
$r = +.30$ to $.49$ or $r = -.30$ to $-.49$	Medium
$r = +.50$ to $1.0$ or $r = -.50$ to $-1.0$	Large/high

Source: (Cohen, 1988)

However, chapter five addressing in details the correlations result as well as the test of Multicollinearity.

#### **4.11 Chapter Summary**

This chapter discussed the research methodology adopted and applied in the current study. This chapter tried to provide clear elaborations on the study population, sampling frame as well as the justification of the selection of the study unit of analysis.

Moreover, the chapter included instruments and measures, data collection, data analysis techniques and procedures. Furthermore, 100 questionnaires were collected and used in conducting the pilot study analysis.

Therefore, the validity and reliability of the research measurements tested and shows valid and reliable data which ensures high quality data for the real data collection phase.

The next chapter (Chapter Five) discussed the analysis method used in this study as well as the findings that resulted from analyzing the data.

## **CHAPTER FIVE**

### **FINDINGS**

#### **5.1 Introduction**

This research aims to investigate the direct relationship as well as to examine the impacts of service quality (CARTER model), knowledge and awareness on Islamic banking system (KU) on the intention to subscribe the Islamic banking system (INT) in the Libyan banking sector based on data collected from the Libyan's targeted banks' customers in three different states in Libya. However, the current chapter provides the analysis method adopted in this research and the findings that resulted from the data analysis. The results of this study present a flow in accordance to the research design and methodology described in the previous chapter.

Nevertheless, descriptive analysis of the constructs, the respondents profile and rate, demographic distribution of the respondents by variables, testing the measurement model, correlation analysis, direct and indirect effect of the two proposed moderating result are presented. However, this is followed by the Confirmatory Factor Analysis (CFA), analysis of the Structural Equation Model (SEM) procedures and Goodness of Fit Index (GOFI), measurement models, exogenous variables, endogenous variables, hypothesized model, generated model and competing models (Underpinning Theory). Where the direct effects of the hypothesis testing are also included and presented.

#### **5.2 Descriptive Analysis of the Constructs**

The data descriptive statistics consist of an abstract description of the statistics of the main summary and it is used to determine the characteristics of the intention to subscribe the Islamic bank system INT within the Libyan banks and financial institutions. The characteristics of respondents the INT within the Libyan banks and



financial institutions are determined. In this test, raw data is transformed into a new data to provide information concerning the INT and to explain a set of factors in an understandable and interpretable situation (Kassim, 2001; Sekaran, 2003). This analysis made use of frequency distribution, mean and standard deviation to determine differences among groups of variables to highlight the meaning of the entered data. The main descriptive statistics used for INT within the Libyan banks and financial institutions are mean and standard deviation.

However, below Table 5.1, shows that, assurance with 7 items and reliability 5 items, have the lowest mean of 1.529 and 1.599 respectively, while the compliance with 5 items, found to be the third highest mean scored in terms of (items scores) after the intention to subscribe IBS and religion's obligation.

Furthermore, the standard deviation for entire variables appears to fall between the ranges of 0.646 to 1.245, this, therefore, reflects the existence of significant acceptable variation within the data set; range of scale between 1 to 7,  $n=223$ .

Table 5.1  
*Descriptive Statistics of All Variables (n= 223)*

<b>Name of Variables</b>	<b>Code</b>	<b>No of sample</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
Intention to Subscribe IBS	INT	223	4.27	7.00	5.9615	0.64598
Religion's Obligation	RO	223	2.47	7.00	5.8931	0.90962
GovernmentSupport	GS	223	1.82	6.45	3.5124	0.93262
Knowledge & Awareness on IBS	KU	223	1.00	7.00	4.7673	1.24447
Overall SERVQUAL	SERVQUAL	223	2.62	4.71	4.0744	0.27350
Compliance	CO	223	2.20	7.00	5.7959	0.87590
Assurance	AS	223	1.00	4.43	1.5282	0.65167
Reliability	RL	223	1.00	4.40	1.5984	0.63041
Tangibility	TA	223	1.00	4.71	2.0877	0.76574
Empathy	EM	223	1.00	5.56	2.7231	0.87169
Responsiveness	RE	223	1.00	4.38	2.0404	0.70725

### 5.3 Response Rate

A total of four hundred (384) questionnaires were distributed to the respondents in the three major states in Libya. Only two hundred and twenty six 226 questionnaires were returned. The obtained 226 questionnaires were manually tested and three questionnaires were excluded due to the incomplete answers of questionnaire questions'. In this regard, out of 384 questionnaires distributed, 174 were unreturned questionnaires, and 226 were returned which representing a rate of 58.9% response rate as it displayed in the Table 5.2. However, the obtained data from these 226 questionnaires were keyed into SPSS 21.0, and the data were then carefully examined for further data screening analysis.

However, in the end out of the 226 questionnaires, 223 were useful for the actual data analysis represents a rate of 58.9% which is considered to be highly acceptable since according to World Bank (1997) 30% of the total response rate considered to be remarkable percentage by the world development report in regarding with what is called developed countries.

However, Hair *et al.*, (2010) claimed that, it is better for researchers to remove those respondents in the case of the missing data values are higher than (5 per cent) where in the case that the study does not have any sample size problem. However, for this research there were no missing data concerns more than the recommended 50%, therefore the usable responses is 223 datasets as illustrated in Table 5.2.

Table 5.2  
*Summary of Response*

Description	Total
The distributed questionnaire	384
Unreturned questionnaires	174
Returned and entered questionnaires	226
Response rate	58.9%
Uncompleted and delete questionnaires	2
Missing and replacements	3
(Outliers and delete 3) questionnaire	3

Table 5.2 (Continued)	
Useable data after clean data for analyses	223
Response rate of the sample	<b>58.9%</b>

Nevertheless, out of 226, 130 questionnaires have been distributed to the Libyan banks costumes in Tripoli North Libya, only 66 returned which is represent a response rate of 50.8%, whereas, 124 have been distributed in Sabha South of Libya and 56 returned which represented 45.2% and 134 questionnaires have been distributed in Bangazi Eastern of Libya has been distributed, total of 100 questionnaires has returned which is represent a response rate of 77.1%. Consequently, the overall response rate totaled 58.9% as depicted in Table 5.3. However, the data were obtained in almost three month duration.

However, Table 5.3 and Figure 5.1 were created in order to explain the returned and unreturned distributed questionnaires by the mentioned Libyan three regions where the acceptable response rate was calculated at  $n=226$ .

Table 5.3

*Distribution of Returned Questionnaires (A Summary of Response Rates by State)*

Description	No of Distributed Questionnaires	Unreturned Questionnaires	Returned Questionnaires	%	Valid %	Cumulative %
<b>Tripoli</b>	130	64	66	29.2	29.6	29.6
<b>Bengazi</b>	130	30	100	44.2	44.8	74.4
<b>Sabha</b>	124	67	57	25.2	25.6	100.0
<b>Total usable Questionnaires</b>			<b>223</b>	<b>98.7</b>		
<b>Deleted (outliers)</b>			3	1.3		
<b>Total</b>	<b>384</b>	<b>161</b>	<b>226</b>	<b>100.0</b>	<b>100.0</b>	

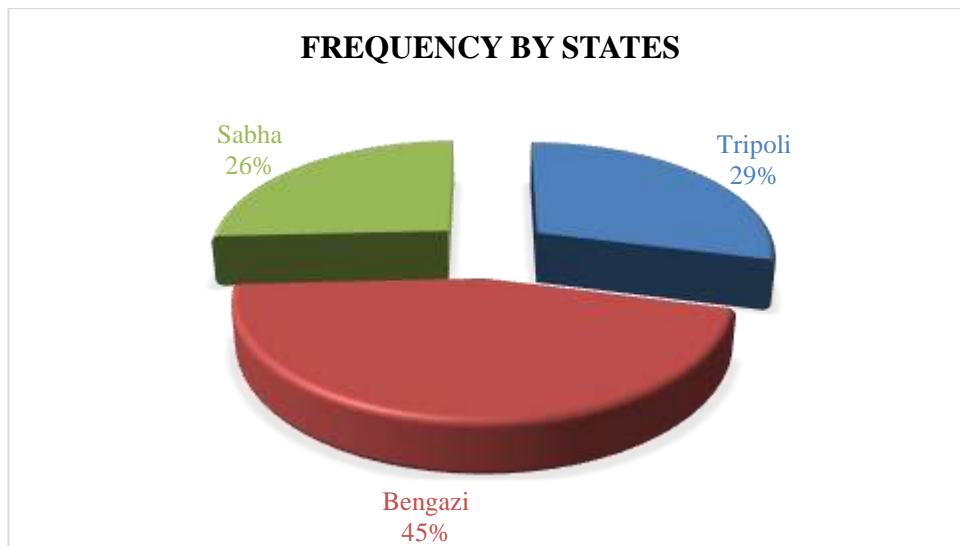


Figure 5.1  
Response Rates by states

However, several scholars argue in the related literatures have proven that, “the non-respondents sometimes differ systematically from the respondents both in attitudes, behaviors, personalities, motivations, and demographics in which any or all that might affect the results of the study” (Malhotra, Hall, Shaw, & Oppenheim, 2006).

#### 5.4 Demographic Distribution of the Respondents by Variables

For ease of understanding, a tabulation of the profiles of the respondents, their banks’ and the demographic information about the participants are listed in below Table 5.4.

Table 5.4  
Distribution of Sample By Demographic Variables (n=223)

Demography Description		Frequency	Percentage
<b>ender</b>	Male	168	75.3
	Female	55	24.7
<b>Total</b>		<b>223</b>	<b>100</b>
<b>Age</b>	18-25	13	5.8
	26-35	71	31.8
	36-45	61	27.4
	46-55	7	3.1
	Total	220	98.7
<b>Missing</b>	System	3	1.3
<b>Total</b>		<b>223</b>	<b>100</b>

However, a critical look at the Table 5.4 indicates that the responding government staffs’, employees’ and its participants are broadly representative of the target

population of customers in Libyan banks. Among the profiles of the respondents' demographic included in this study are eight of the following major items: 1: Faith 2: Gender, 3: Age, 4: Level of Income, 5: Occupation, 6: levels of Education, 7: State/City and 8: Bank name.

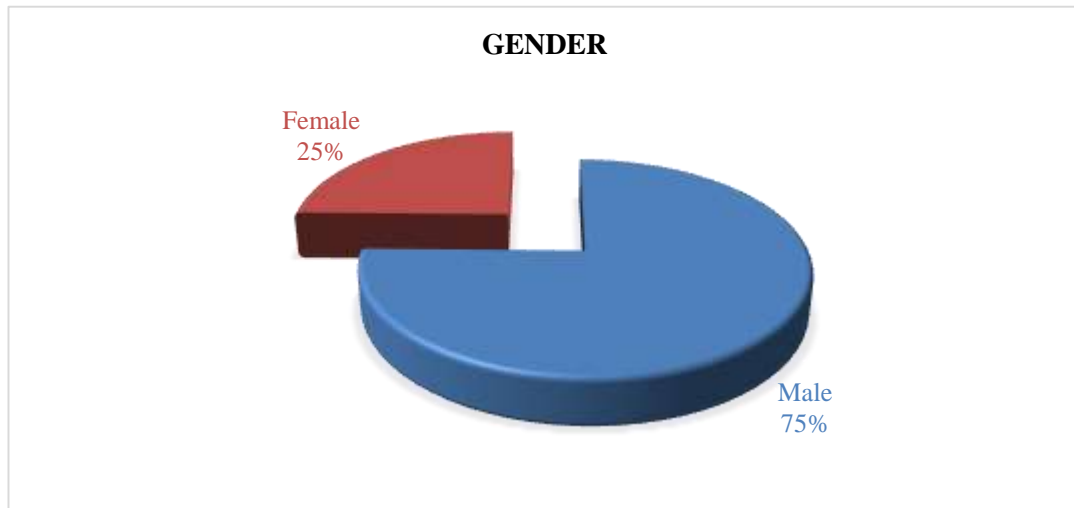


Figure 5.2  
*Distribution of Sample by Demographic According to Gender Factors (n=223)*

The results of frequency descriptive analyzing the above mentioned variables are shown in Table 5.4. However, Figure 5.2 displays that the respondents of this study consist of 55 female, which represents 24.7%, where in return 168 of males which represents 75.3%.

On the other hand, the average age of the sample in this study is divided into four categories. Additionally, at the top category does the one comprise respondents aged between 26 and 35 years, which also took the highest proportion with 71 respondents 31.8%, followed by those aged between 36 and 45 years with 61 respondents or 27.4% as it displayed in Figure 5.3. However, the ages, youth 18 to 25 group has 13 responds with 5.8% and the lowest rate of responded in terms of ages was the old 46 to 55 there was a total of 7 respondents or 3.1% and for aged over 41 years.

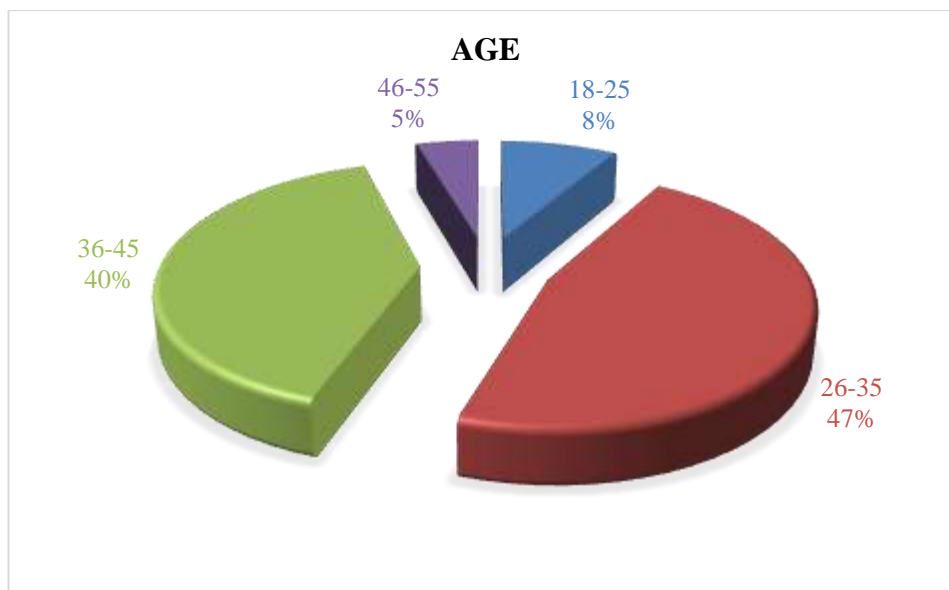


Figure 5.3  
Distribution of Sample by Demographic According to Age Factors (n=223)

In addition, the occupation of the respondents is divided into thirteen categories, where government staff constituted the highest rate of 132 respondents which is 59.2%, students constituted the second highest rate of 24 or 10.8% respondents, administrative/ managerial and executive officers 22 respondents which is 9.9%, academic/educators, 14 respondents which is 6.3%, where the lowest rate was represented in two categories housewife's and the own business holders which was 3 respondents to each of them at the rate of 0.9% for each as displayed in Table 5.5.

Table 5.5  
The Study Distribution of Respondents According to the Occupation

	Description	Frequency	%
Occupation	Professional (Doctors, lawyers, engineers, journalist etc.).	10	4.5
	Administrative/managerial and executive officers.	22	9.9
	Clerk /Police /Army.	7	3.1
	Academic/ educators.	14	6.3
	Marketing and sales.	3	1.3
	Student	24	10.8
	Technician	4	1.8
	Own business.	3	1.3
	Housewife	2	0.9
	Government staff	132	59.2
	Other	2	0.9
	<b>Total</b>	<b>223</b>	<b>100.0</b>

The below Figure 5.4 illustrates the distribution of respondents according to the jobs title:

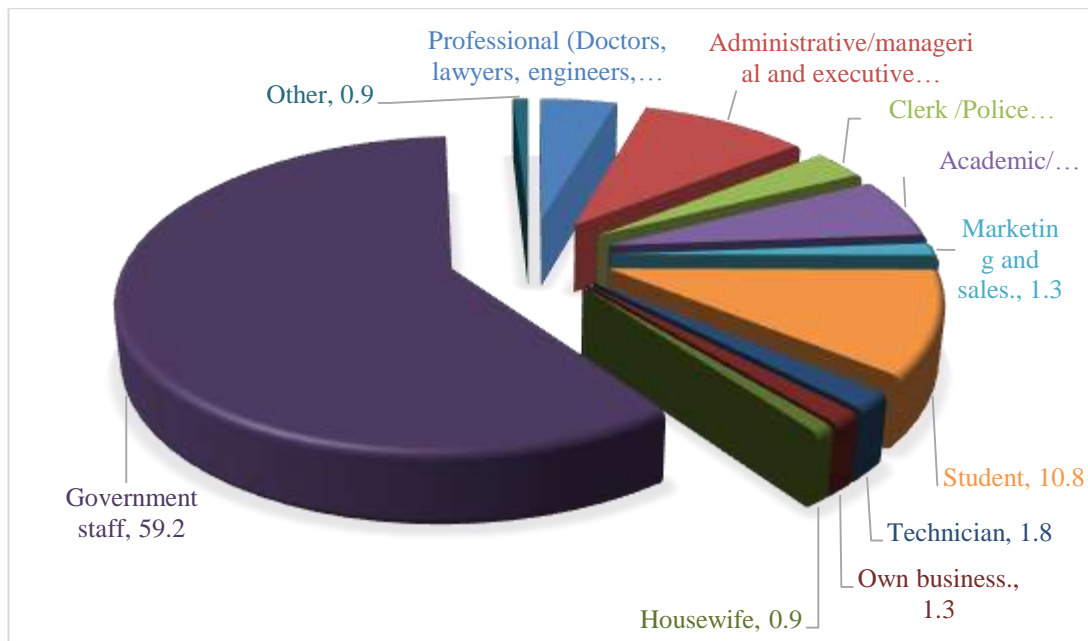


Figure 5.4  
*Distribution of Respondents According to the Occupation (n=223)*

On the other hand, the level of education is divided into five categories as it shows in the Table, 5.6 where the lowest level of education constituted 15 or 6.7%, secondary school 19 or 8.5%, undergraduate represented the highest rate with 112 respondents with 50.2%, Postgraduate (Masters students) 38 respondents with 17.0% and doctoral 38 or 17.0%.

Table 5.6  
*The Study Distribution of Respondents According to the Education Level*

Description	Frequency	%	
<b>Education</b>	Low level of education	15	6.7
	Secondary school	19	8.5
	Undergraduate	112	50.2
	Postgraduate M.sc	38	17.0
	Academic level	38	17.0
<b>Total</b>	222	99.6	
<b>Missing</b>	System	1	0.4

The below Figure 5.5 illustrates the distribution of respondents according to the education level:

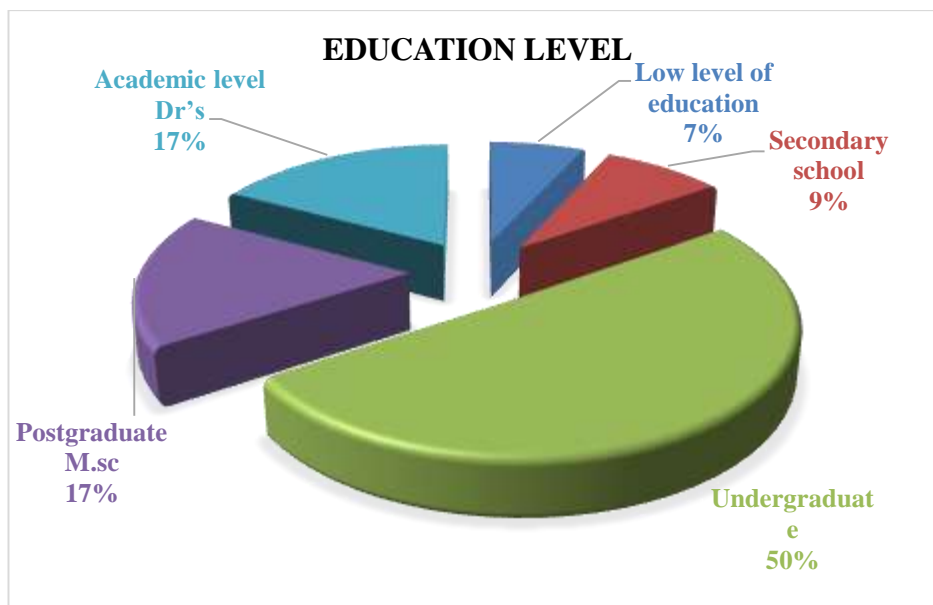


Figure 5.5  
Distribution of Respondents According to the Education Level (n=223)

Besides, the results shows that the highest respond rate of the respondents were obtained from the eastern region of the country (Benghazi) with a total of 100 or 44.8% of the sample followed by the South Region (Sabha), 57 with 25.6% of the sample size; where the north region (Tripoli) 66 respondents with 29.6% below Table 5.7 illustrates the distribution of respondents according to their regions.

Table 5.7  
Distribution of Respondents According to the Region/States (n=223)

Description	Frequency	%
<b>REGION/STATES</b> Tripoli	66	29.6
Benghazi	100	44.8
Sabha	57	25.6
<b>Total</b>	<b>223</b>	<b>100.0</b>

Figure 5.6 illustrates the distribution of respondents according to their regions:



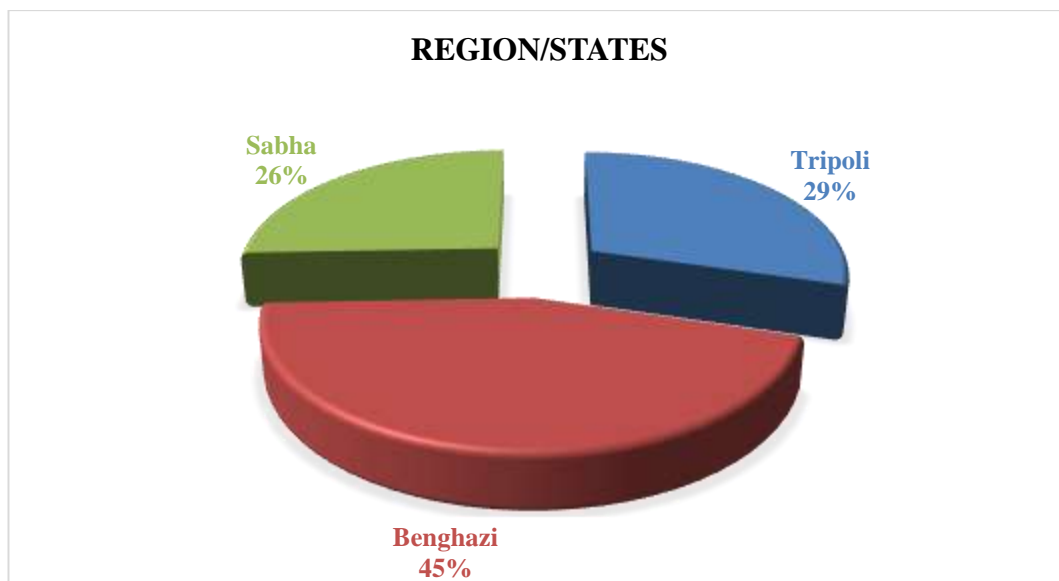


Figure 5.6  
Distribution of Respondents According to the Region/States (n=223)

Where, in terms of banks, as it shows in Table 5.6 the biggest Libyan bank the Gumhouria bank constituted the highest rate with 104 respondents which is 46.6%, follow by Wahda Bank 42 with 18.8%, Commerce and Development Bank 38 with 17.0%, where the lowest rate was Aman and Development Bank with 1 respond .4% for each.

Table 5.8  
The Study Demographic

	Description	Frequency	%
<b>BANKS' NAME</b>	Gumhouria	104	46.6
	Agricultural Bank	1	.4
	Aman Bank	3	1.3
	Commerce and Development Bank	38	17.0
	Development Bank	1	.4
	National Commercial Bank	7	3.1
	Sahara Bank	11	4.9
	Umma Bank	4	1.8
	Wahda Bank	42	18.8
	North Africa Bank	4	1.8
	National Bank	6	2.7
	Alwaha Bank	2	.9
	<b>Total</b>	<b>223</b>	<b>100.0</b>

Figure 5.7 illustrates the occupation of respondents according to the bank names:

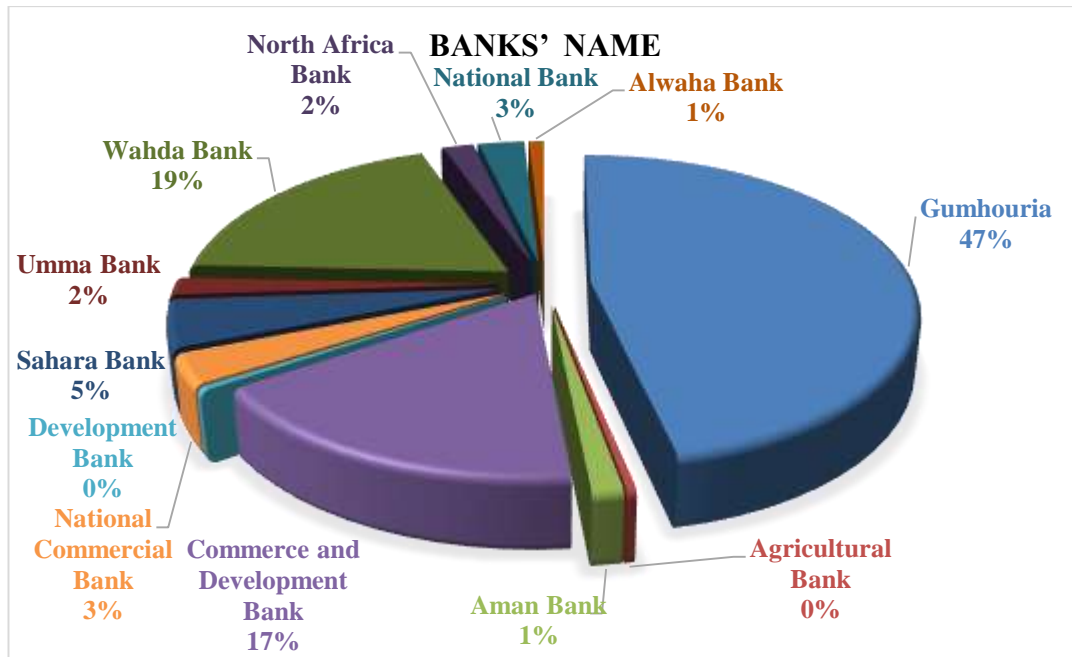


Figure 5.7  
*Proportion of Respondents According to the Bank Name's (n=223)*

### 5.5 Testing the Measurement Model

One of the main limitations of the Exploratory Factor Analysis (EFA) approach is that an item is to be assigned to the factors on which the loading is the highest regardless the fact this item may be also has a loading on other factors. However, this fact may affect the distinctiveness of factors due to the cross loadings. In addition to that, the items are assigned to factors in EFA based on statistical reasoning and not on theoretical justifications. Finally, the concept of unidimensionality concept has not been taken care of in EFA unlike the case of Confirmatory Factor Analysis CFA (Ahire *et al.*, 1996).

Therefore, the measurement model was assessed before further analysis was made. Following the two steps approach suggested by Anderson and Gerbing (1988), this study, due to relatively small number of the study population employed only the first step as to test the measurement model. Therefore, CFA was employed to validate the measure through examining the association between items and their respective

underlying constructs. SEM version 21.0 was used to estimate the parameters utilizing Maximum Likelihood Estimation (MLE) method which is suitable for sample size exceeding 100 as reported by (Ding, Velicer & Harlow, 1995).

### 5.5.1 First Order and Second Order Constructs

Before start examining the theoretical and conceptual aspect of the second order constructs in the model, more explanation has been provided on the differences between the first and the second order measurement models as displayed in Figure 5.8 and Figure 5.9.

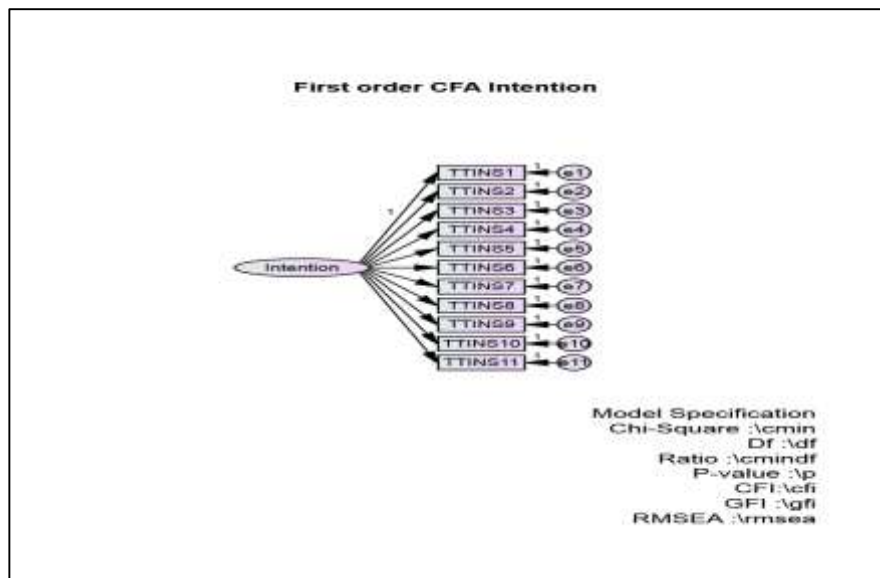


Figure 5.8  
*First Order Measurement before Fit (Intention to Suscribe the Islamic Banking)*

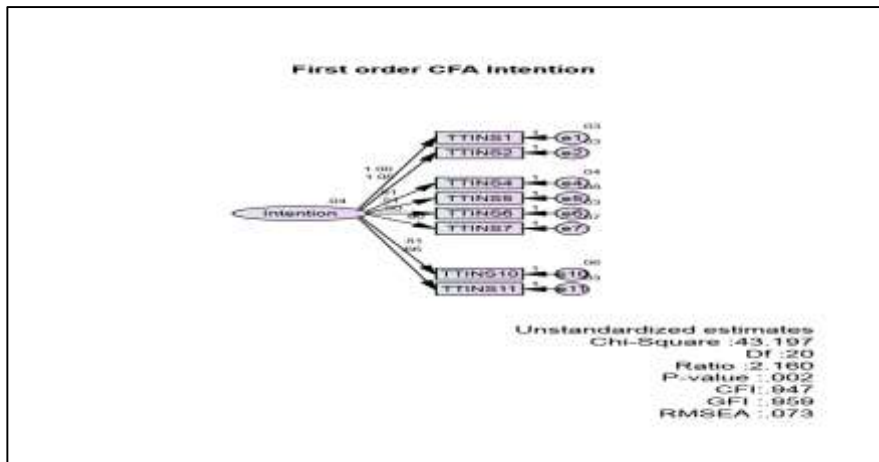


Figure 5.9  
*First Order Measurement after Fit(Intention to Suscribe the Islamic Banking)*

However, as illustrated in Figure 5.8 and 5.9 intention to subscribe the Islamic banking (INT) as a latent variable was measured by a set of measured variables namely INT 1 to INT 11.

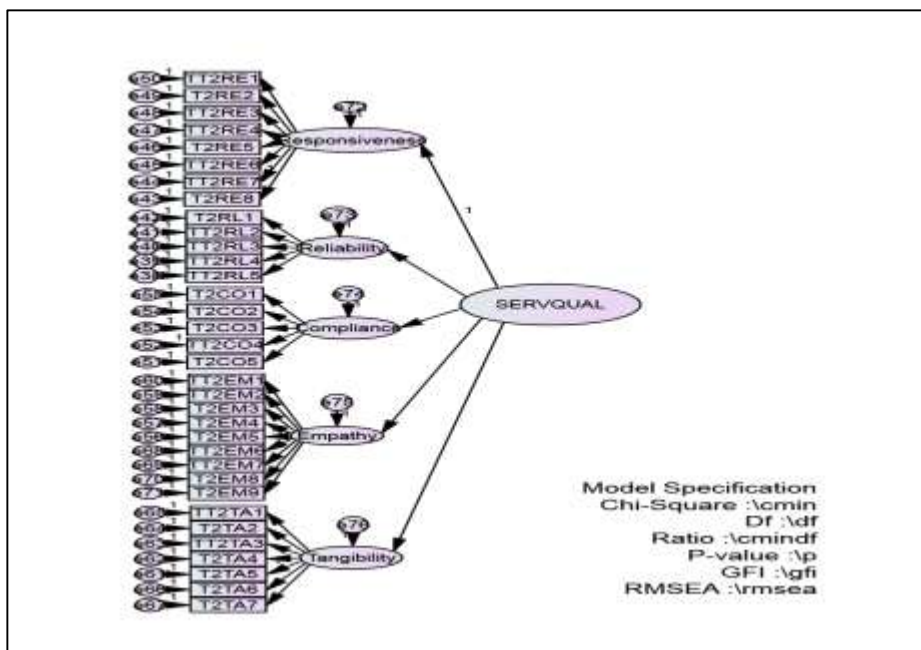


Figure 5.10  
*Second Order Measurement CARTER Model before Fit*

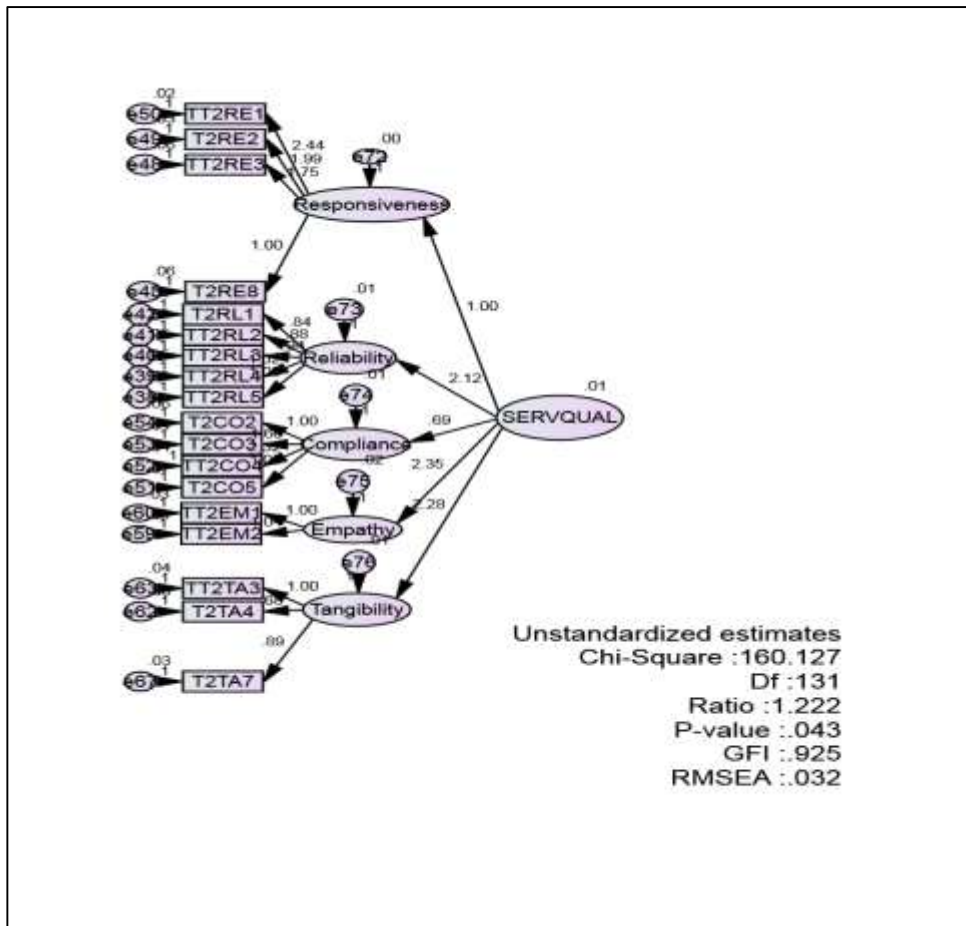


Figure 5.11  
 Second Order Measurement CARTER Model after Fit

Where, Figure 5.10 and 5.11 CARTER Model construct was measured indirectly by many items through other layer of latent variables. Therefore, for this reason SERVQUAL was called a second order measurement model. In other words, the second order factor structure has two layers of latent variables. As in this study, SERVQUAL is second order factor structure as it's caused multiple first order latent factors, structure latent variable may have many first order latent variables (Hair *et al.*, 2010).

### 5.6 Test of Multicollinearity and Correlation Matrix of Constructs

Multicollinearity refers to the degree to which a variable can be described by other variables. It is imperative that the correlation values of the study are less than the value of 0.80 as had recommended by Hair *et al.*, (2006). Hence, as long as this correlation's

values of the study more than the recommended value; than Multicollinearity issues have to be considered.

Therefore, from the correlation results illustrated in Table 5.9 which demonstrate the correlations between independent and dependent variables, it shows that there were no existences of multicollinerity cases amongst the variables'. The results in Table 5.9 revealed that the correlation coefficient for the entire dependent (endogenous) and independent (exogenous) representing latent variables were below the expected value of correlation 0.80, where the highest correlation coefficient of found to be between Intention and overall SERVQUAL at 0.665.

Table 5.9  
*Correlations among Variables*

Variable name	Covariance	Variable name	Estimate Correlations P
Intention	<-->	Religious Obligation	0.473
Intention	<-->	Government Support	0.076
Intention	<-->	Knowledge & Awareness	0.301
Intention	<-->	Overall SERVQUAL	0.665
Religious Obligation	<-->	Government Support	0.361
Religious Obligation	<-->	Knowledge & Awareness	0.361
Religious Obligation	<-->	overall SERVQUAL	0.451
Religious Obligation	<-->	Intention	0.473
Government Support	<-->	Knowledge & Awareness	0.205
Government Support	<-->	overall SERVQUAL	0.083
Government Support	<-->	Intention	0.076
Government Support	<-->	Religious Obligation	0.361
Knowledge & Awareness	<-->	overall SERVQUAL	0.082
Knowledge & Awareness	<-->	Intention	0.301
Knowledge & Awareness	<-->	Religious Obligation	0.361
Knowledge & Awareness	<-->	Government Support	0.205
overall SERVQUAL	<-->	Intention	0.665
overall SERVQUAL	<-->	Religious Obligation	0.451
overall SERVQUAL	<-->	Government Support	0.083
overall SERVQUAL	<-->	Knowledge & Awareness	0.082

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

In relation to that, the correlation matrix results extracted from SPSS in Table 5.10, indicated that the values are less than 0.80 as well, which means there is consistent with the SPSS result and confirming that no multicollinearity between all the

exogenous variables as well (Cooper & Schindler, 2003; Sekaran, 2003). However, the measurement model before fitting is listed in Table 5.10 generated from SPSS 21.0 depicting the correlation matrix between the variables. For more details of the result of correlation matrix between the entire variables, refer to appendix 5.1).

Table 5.10  
*Correlation Matrix between the Latent Variable from Measurement Model*

Variable Nama	INT	RO	GS	KU	CO	AS	RE	TA	EM	RE
	1	2	3	4	5	6	7	8	9	10
INT (1)	1									
RO (2)	.522**	1								
GS (3)	.070	.299**	1							
KU (4)	.263**	.271**	.167*	1						
CO (5)	.620**	.395**	.078	.257**	1					
AS (6)	.495**	.389**	.022	.037	.439**	1				
RE (7)	.451**	.395**	.003	-.005	.401**	.724**	1			
TA (8)	.394**	.448**	.191**	.037	.396**	.584**	.656**	1		
EM (9)	.407**	.301**	.118	.066	.337**	.483**	.563**	.628**	1	
RE (10)	.421**	.331**	.142*	.105	.375**	.587**	.627**	.645**	.702**	1

\*\*\*. Correlation is significant at the 0.001 level (2-tailed)

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

Where, INT Intention, RO Religious Obligation, GS Government Support, KU knowledge & Awareness, CO Compliance, AS Assurance, RE Reliability, TA Tangibility, EM Empathy and RE Responsiveness

Likewise, the present research studied the covariance and correlations among the SERVQUAL dimensions to justify taking SERVQUAL as a second order factor. Following the same reasoning stated earlier, Table 5.11 showed that the covariance between compliance, assurance, reliability, tangibility, empathy and representativeness found to be normal, indicating the existence of second order factor explaining the first order factors.

Table 5.11  
*Correlations among Exogenous Variables*

Variable name	Covariance	Variable name	Estimate Correlations P
Reliability	<-->	Responsiveness	0.703
Reliability	<-->	Compliance	0.520
Reliability	<-->	Empathy	0.955
Reliability	<-->	Tangibility	0.785
Reliability	<-->	Assurance	0.729
Responsiveness	<-->	Compliance	0.497
Responsiveness	<-->	Empathy	0.976
Responsiveness	<-->	Tangibility	0.847

Variable name	Covariance	Variable name	Estimate Correlations P
Responsiveness	<-->	Assurance	0.594
Empathy	<-->	Compliance	0.710
Empathy	<-->	Tangibility	0.926
Empathy	<-->	Assurance	0.912
Tangibility	<-->	Compliance	0.537
Tangibility	<-->	Assurance	0.675
Compliance	<-->	Assurance	0.677

Figure 5.12 and 5.13 displays the correlations among constructs which have been generated by SEM.

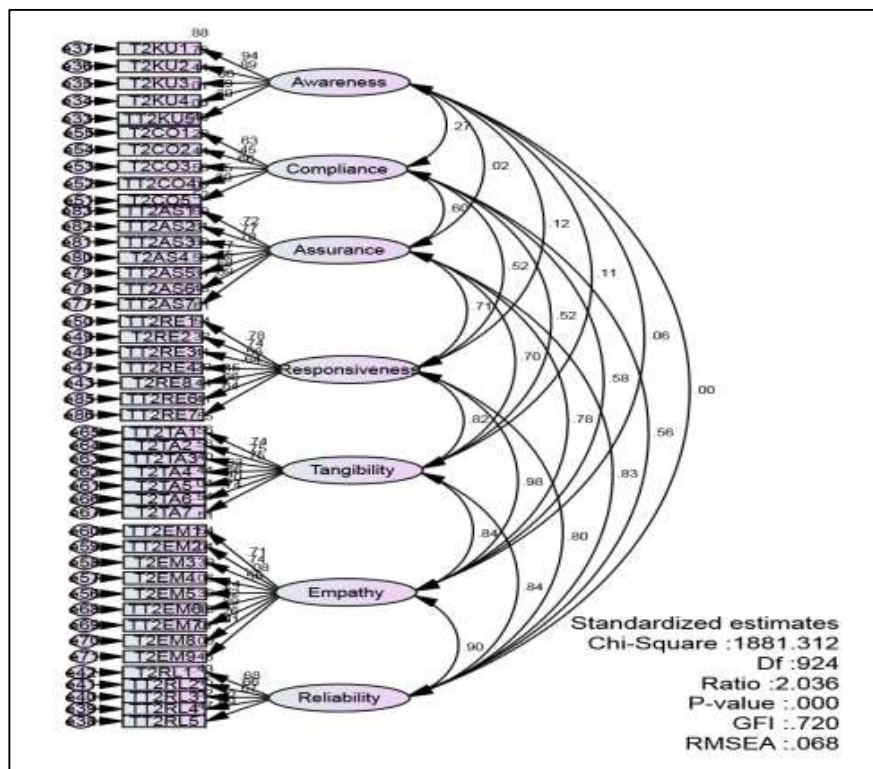


Figure 5.12  
 Correlations among Exogenous Variables



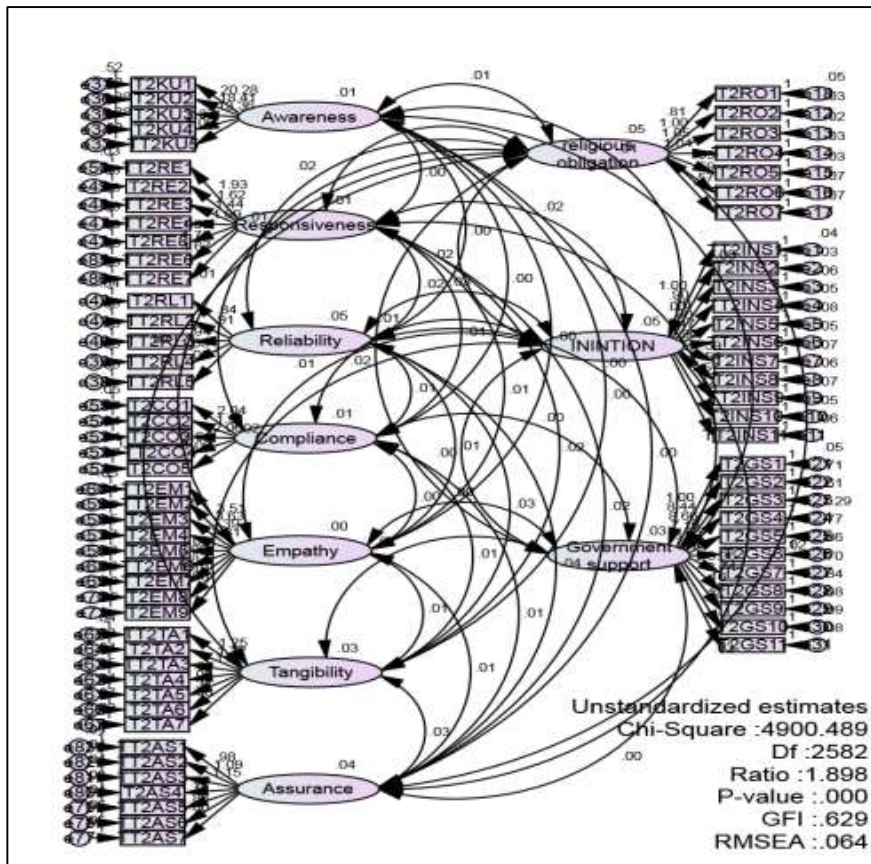


Figure 5.13  
 Correlations among Constructs (Endogenous and Exogenous Variables)

For more details regarding to the correlation matrix between the entire variables (Endogenous and exogenous variables) refer to appendix 5.1. where, hypothesized model is listed and depicted the correlation matrix between the variables.

### 5.7 Structural Equation Modeling (SEM) Procedure and Results

Current statistical analyses depend on assumptions concerning the actual variable to use in data analysis. Researchers and statisticians confirm the need to meet these criteria for the research outcomes to be trustworthy (Leslie, 2010; Byrne, 2010; Hair *et al.*, 2006) because a trustworthy outcome veers away from the appearance of Type 1 or Type 1 error. Type 1 has a p-value of less than 0.05 and for the hypothesis to be significant p-value should be less than 0.05. For Type 11 error p-value of over 0.05 is used. However, the errors lead to the over or underestimation of the research

significance. According to Hau and Marsh (2004), the knowledge and understanding of the above basic assumptions lead to the determination of a serious bias in the study findings. The basic assumptions are normality, linearity and homoscedasticity (Hair *et al.*, 2010).

### **5.7.1 Measurement of the Model Evaluation and Modification**

As mentioned earlier, CFA analysis method was conducted to test the convergent validity for each variable individually as shown in the following sections. Likewise, the following section addressing and explaining the CFA for the exogenous and endogenous constructs together and, the researcher ensured that each exogenous and endogenous construct has the correct observed variable. Besides, the items of constructs theoretically should be close to each other with regard to the factor loading and GOF (Hair *et al.*, 2010).

### **5.7.2 Confirmatory Factor Analysis (CFA)**

Since the measurement model aims to improve the model before the estimation of the hypothesized model, the standardized regression weights for the research indicators were first examined by conducting the CFA for each variable (for more details see to the factor loading of items appendix 5.5). As suggested, all items have loaded more than 0.50 on their underlying construct has been carefully deleted using Modification Indices (MI) as it shown in the Table 5.12. However, several authors have statistically recommended a loading that is above 0.50 as the cut off criterion (Byrne, 2010; Hair *et al.*, 2006; John, & Reve. 1982). Meanwhile, there are some other authors who believe that any item of 0.40 and above should be given a trial as long as they have been theoretically tested as a valid instrument for measuring the constructs of interest (Hu & Bentler, 1995; Kaiser, 1974). Hence, it can use these items which above 0.40 can be included since this in turn have adequate proof of the convergent validity.

Therefore, all of the present study items are related to their each specific constructs, and thus there is satisfactory evidence of the convergent validity of the model. However, Table 5.12 displays the factor loading of 25 remaining items which has been extracted from measurement model after transform and fit model. For more details regarding to the entire study items factor loading before fit model (for more details refer to Appendix 5.5).

Table 5.12  
*The Factor Loading of Remaining Items from Measurement Model after Transform and Fit Model (25 Items)*

<b>NO of items</b>	<b>VARIABLES NAME</b>	<b>Item code</b>	<b>Factors loading</b>
<b>INTENTION</b>			
1	I am interested in using Islamic financing products.	<b>IN 1</b>	0.700
2	I will use and deal with the Islamic products, even at higher prices	<b>IN 7</b>	0.867
3	There is a good probability that I would consider subscribing within Shariah compliant finance banks.	<b>IN 10</b>	0.602
4	I have a desire to participate in Islamic banking	<b>IN 11</b>	0.579
<b>RELIGION OBLIGATIONS</b>			
1	The Shariah compliant finance system is in line with the Islamic philosophy of doing banking business.	<b>RO 1</b>	0.787
2	Islamic banking system is based on Islamic principle business implementation.	<b>RO 2</b>	0.817
3	An introduction of Shariah compliant finance system is based on "Quran and Hadith".	<b>RO 3</b>	0.681
<b>GOVERNMENT SUPPORT</b>			
1	The Libyan government provides incentives to the Islamic banking industry.	<b>GS 2</b>	0.889
2	The Central Bank of Libya always scrutinizes the move of Islamic banking operations.	<b>GS 4</b>	0.778
3	The Central Bank of Libya encourages new innovations in Islamic banking operations.	<b>GS 5</b>	0.889
4	The Libyan government is active in setting up the facilities to enable the Islamic finance system.	<b>GS 7</b>	0.867
<b>KNOWLEDGE AND AWARENESS</b>			
1	I am aware of the principle and the terms and conditions of the Islamic banks financial business	<b>KU 2</b>	0.896
2	I'm aware of any controversy of Murabaha as a method for personal Islamic finance	<b>KU 3</b>	0.663
<b>COMPLIANCE</b>			
1	It's very important to provide several products and services by the Islamic banking system banks and institutions.	<b>C 3</b>	0.625
2	I always look for banks, which provider of free interest loans.	<b>C 4</b>	0.754
<b>ASSURANCE</b>			
1	The bank staff has to be of full knowledge to help the customers and clients.	<b>AS 3</b>	0.771

Table 5.12 (Continued)

2	The bank staff must always fulfill their promises	<b>AS 4</b>	0.742
<b>(R) RELIABILITY</b>			
1	The bank staff have to be always supportive to customers in terms of solving their individual problems	<b>RL 1</b>	0.686
2	The bank staff have to be timely enough in terms if fulfilling their commitments	<b>RL 5</b>	0.663
<b>TANGIBILITY</b>			
1	The bank staffs have to be sympathetic and reassuring in case of problem with customers.	<b>TA 2</b>	0.780
2	Bank facilities' have to be completed with up to date	<b>TA 3</b>	0.804
<b>EMPATHY</b>			
1	It's very important to understand the customer specific requirements by the bank staff	<b>EM 2</b>	0.666
2	One of the good sign for me is bank confidentiality	<b>EM 6</b>	0.573
<b>REPRESENTATIVENESS</b>			
1	I care about the bank staff being punctual/prompt to respond to the customer needs	<b>RE 1</b>	0.828
2	I look for duty timings of the bank staff to be flexible to serve the customer	<b>RE 2</b>	0.793

In this research convergent validity was measured through factor loading as shown in the Table 5.12 that aptly depicts the loadings of each item for measuring predictor variables that was based on the bank's customers' opinion of the utilization of SERVQUAL theory on the analysis of the INT in the Libyan banking sector and the factors affecting fully fledged of IBS in Libyan banking and its financial sector.

However, a critical view of the results in Table 5.12 has shown that the larger percentage of the items is above the 0.50 cut off criterions, with the majority being above 0.60. Therefore, where some items showing less than 0.40 which has been treated and others were deleted, however, it demonstrates that the hypothesized items are truly having a strong relationship with the conceptualized model (Hair *et al.*, 2004).

For more details refer to appendix 5.1

### 5.7.3 Confirmatory Factor Analysis (CFA) of Exogenous and Endogenous Variables (Goodness of Fit Indices)

This study examines the set of exogenous variables: SERVQUAL (CARTER six dimensions) namely: compliance, assurance, responsiveness, tangibility, empathy and reliability) and KU. The following Figure 5.14 shows the resulting statistical estimates before fit and after fit of all exogenous and endogenous models.

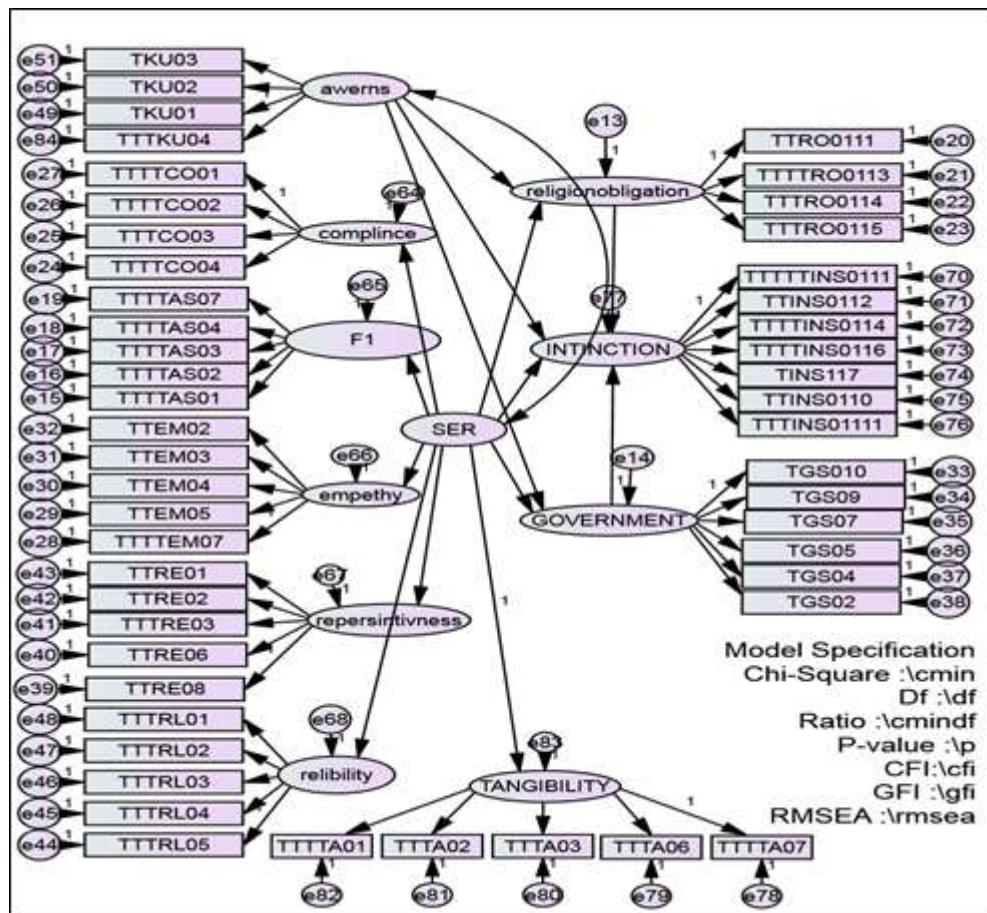


Figure 5.14  
CFA For Exogenous and Endogenous Variables (Hypothesized Model)

Where in the resulting statistical estimates after fit model of all exogenous and endogenous models indicates that most of the variables indicated achieved a good fit as per the recommended value (Hair *et al.*, 2010). However, the process of the model modification was based on re-estimation of the model fit after removing some of the problematic observed variables.

Therefore, the final modified model for each exogenous variables model yields a good result of fit as recommended by Hair *et al.*, (2010). However, following Table 5.13 summarizes the overall goodness-of-fit indices of the CFA measurement model of this research.

Table 5.13  
CFA of All Measurement and Structured Model (Goodness-of-Fit Indices) (n =223)

V/COD	Items	Items remaining	Chi-square $\chi$	df	Ratio /CMI N/DF	CFI	GFI	AG FI	NFI	RM SEA	P-value
INT	11	9	42.747	27	1.583	.968	.959	.932	.920	.052	.028
GS	11	9	45.255	27	1.676	.980	.957	.929	.952	.055	.015
RO	7	4	3.531	2	1.765	.991	.992	964	.979	.059	.171
KU	5	4	1.183	2	.591	.995	.997	986	.997	.000	.554
RE	8	5	13.708	5	2.742	.972	.977	931	.957	.089	.018
RL	5	5	5.162	5	2.039	.999	.991	972	.984	.012	.396
TA	7	6	16.458	9	1.829	.981	.976	.943	.961	.034	.061
AS	7	6	14.904	9	1.656	.990	.977	947	.976	.055	.094
CO	5	5	11.399	5	2.280	.968	.979	.938	.946	.076	.044
EM	9	5	5.129	5	1.026	.999	.991	.974	.977	.011	.400
EXO	46	16	124.50	97	1.284	.982	.937	.911	.926	.036	.031
ENDO	29	11	62.423	42	1.486	.980	.953	.926	.941	.047	0.022
Exo and Endo Hypoth	75	25	280.79	25	1.101	.989	.911	.886	.890	.021	.128
				5							
			370.38	30	1.199	.977	.895	.871	.879	.030	.009
				8							
				9							
<i>Recommended value*</i>			<i>N/A</i>			$\geq .9$				$< .08$	

Table 5.13 shows that the good of fit index for Chi-square  $\chi$ , Dff, Ratio/CMIN/DF, CFI, GFI, AGFI, NFI, RMSEA and P-value, statistical estimates achieve of goodness-of-fit for exogenous model including SERVQUAL (CARTER six dimensions namely: (compliance, assurance, responsiveness, tangibility, empathy and reliability) and KU. Table 5.13 also shows the resulting statistical estimates of the exogenous model. Most of the indices indicated achieved a good fit as per recommended value (Hair *et al.*, 2010). However, following Figure 5.15 shows the resulting statistical CFA for exogenous and endogenous model after fit models.

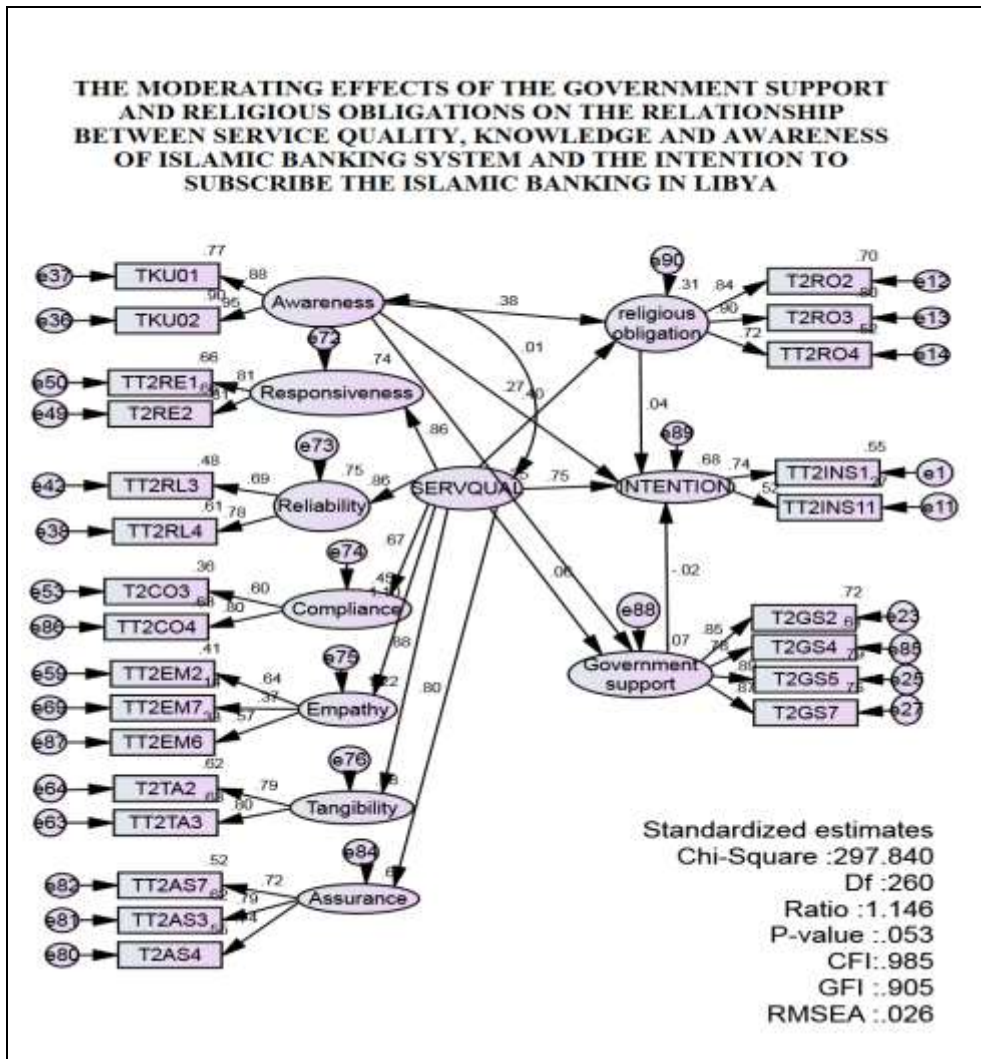


Figure 5.15  
 CFA For Exogenous and Endogenous Variables ( Fit Model)

### 5.7.4 Goodness of Fit Index (GOFI)

Goodness of fit is the ‘the degree to which the actual or observed input matrix (covariance or correlations) is predicted by the estimated model’ (Hair *et al.*, 2006, p.580). Generally, based on studies (Ghozali *et al.*, 2005; and Hair *et al.*, 2006), there are three major types of GOF indicators namely, absolute fit measure, incremental fit measure and parsimonious fit measures. However, after run the three recommended models that final model has decided for this research where the goodness of fit index criteria has achieved as recommended. Where chi-square ( $x^2$ ) statistic, chi-square per degree of freedom ratio ( $x^2/DF$ ) has achieved and determined of chi-square ( $x^2$ ) statistic.

However, Table 5.13 and Figure 5.15 show that GOFI, as a ratio value is less than 2 (1.145), indicating sufficient data fit. Moreover, CFI= 0.983, GFI= 0.905, AGFI= 0.881 and NFI= 0.884 fit the data well, since the values that are in close proximity to 1 show better fit. In addition, the parsimonious fit index (RMSEA) is considered to be as the better measurement for the model fit as the results showed that RMSEA = 0.026, which was inside the recommended range of 0.05 and 0.08 and less than 0.10 (Hair *et al.*, 1998; 2006). Where, P-value indicator, which indicates the ability or inability for model generalization was found in the generated model to be equal 0.054, which means that the results of this study can be generalized to all the probable population of this study (Hair *et al.*, 2006). Figure 5.16 shows the competing model after fit. For more details for the generated model (for more details refer to Appendix 5.6).

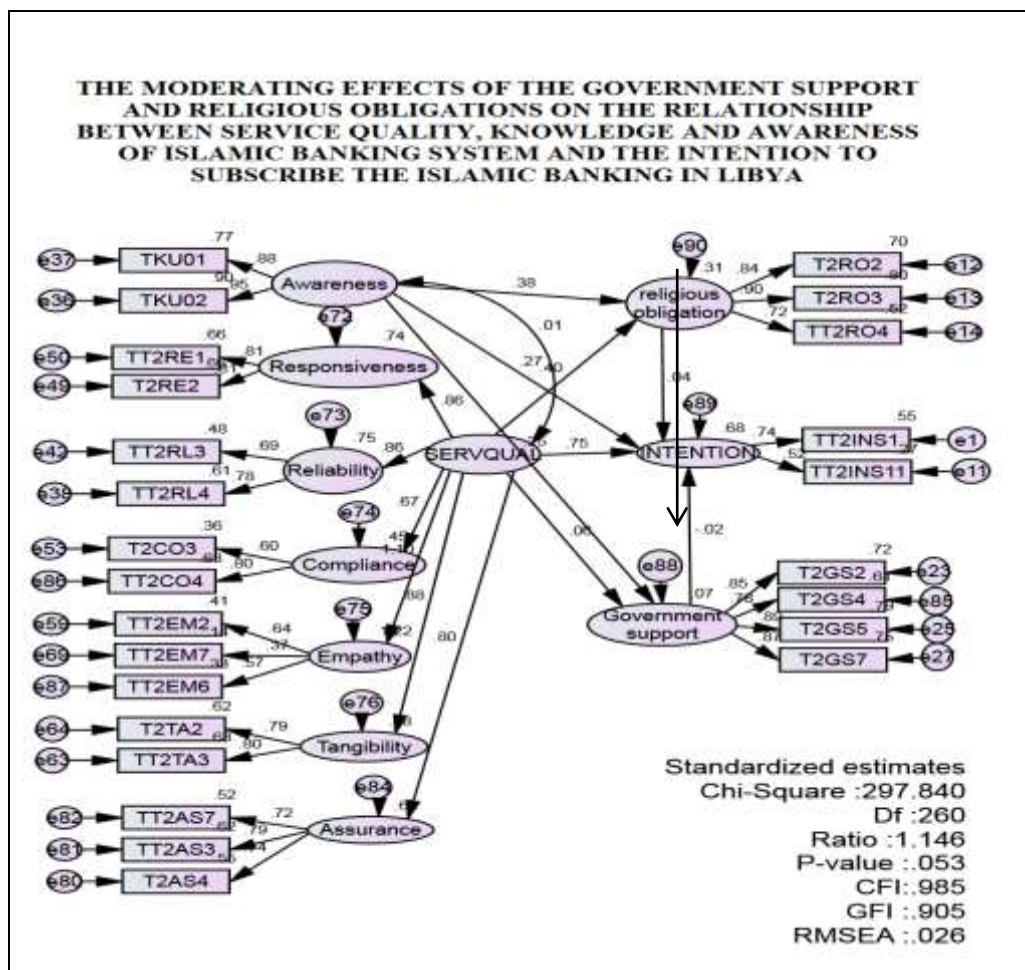


Figure 5.16  
 Competing Model



## **5.8 Objectives and Hypothesis Testing**

As mentioned earlier in the first chapter, this research aims to achieve a set of objectives as follows:

***Objectives 1-*** To determine the effect and the relationship of SERVQUAL (CARTER) Model towards the intention to subscribe the Islamic banking system (IBS) within the Libyan banking sector context.

***Objectives 2-*** To determine the effects of the knowledge and awareness of the Islamic Banking System on the behavioral intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

***Objectives 3-*** To investigate whether a religious obligation moderate the relationship between service quality (CARTER model) dimensions' and the behavioral intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

***Objectives 4-*** To investigate whether a government support moderate the relationship between service quality (CARTER model) dimensions' and the behavioral intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

***Objectives 5-*** To examine whether a religious obligation moderates the relationship between the knowledge and awareness of the Islamic banking system and the behavioral intention to subscribe the Islamic banking system (INT) within Libyan banking sector context.

***Objectives 6-*** To examine whether a government support moderates the relationship between the knowledge and awareness on Islamic banking system and the behavioral

intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

Therefore, grounded on the research objectives the researcher hypothesized was formulated. Hence, the current research carried out to test and achieves eight direct hypotheses and fifteen indirect hypotheses as discussed earlier chapter one and two. Therefore, the following section discusses the testing of the direct and indirect effect using SEM.

### **5.9 Research Objectives and Hypotheses Results**

In order to achieve and to meet the research objectives of this study, it is a procedure to test the hypotheses which have been formulating in according to these mentioned objectives. The present study has started with correlation analysis; Confirmatory Factor Analysis (CFA) followed by achieving the goodness of fit of the proposed mode. However, correlation analysis was used in order to have an initial image of the association relationships between the dimensions of SERVQUAL, KU and the INT. For that reason, to test the hypothesis regarding the direct and indirect hypotheses of this study, direct paths of multiple regression analysis employed. Furthermore, as the fit indication of model shown a good fit to the data as well as the reliability tests convergent and discriminant validities assumption were reinforced, consequently, the generated model is considered adequate for testing the path coefficient that estimates the hypothesized relationships of the model under study (Anderson & Gerbing, 1992). In the following subsections the hypothesis results for this study reported.

### **5.9.1 Direct Hypothesis Results of the Generated Model**

To achieve the research objective one and two regarding to SERVQUAL dimensions and to the knowledge and awareness of the Islamic banking system which were as follows:

***Objective 1- To determine the effect and the relationship of SERVQUAL (CARTER) Model towards the intention to subscribe the Islamic Banking System (IBS) within the Libyan banking sector context***

However, as the SERVQUAL (CARTER) Model has six dimensions, the hypotheses have been reformulated to be more specific in order to meet the research objectives as following:

***H 1-*** Service quality dimensions (CARTER model) have a direct relationship with the intention to subscribe the Islamic banking System (INT).

***H 1a-*** Compliance has a direct relationship with the intention to subscribe the Islamic banking System (INT).

***H 1b-*** Assurance has a direct relationship with the intention to subscribe the Islamic banking System (INT).

***H 1c-*** Reliability has a direct relationship with the intention to subscribe the Islamic banking System (INT).

***H 1d-*** Tangibility has a direct relationship with the intention to subscribe the Islamic banking System (INT).

***H 1e-*** Empathy has a direct relationship with the intention to subscribe the Islamic banking System (INT).

**H 1f-** Responsiveness has a direct relationship with the intention to subscribe the Islamic banking System (INT).

**Objective 2- To determine the effects of the knowledge and awareness of the Islamic banking System on the behavioral intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context**

Where for the second objective the knowledge and awareness on the Islamic banking system was hypothesized as following:

**H 2-** Knowledge and awareness on the Islamic banking system have a direct relationship with the intention to subscribe the Islamic banking System (INT).

Therefore, to achieve the stated direct hypotheses regarding to the SERVQUAL (CARTER) dimensions and knowledge and awareness, several steps has been involved such as (correlation and multiple regression test), however, for this research SEM were applied.

Essentially, Hair *et al.*, (2010), describes a directive as the relationship between two constructs having one path. It is the impact that variables have on one another that constitutes the direct relationship. The current research comprises of eight direct influence and to guarantee that, all the paths in the model are reinforced the recommended values of Critical Ratio (C.R.), Beta (Std Estimate) and *P*-value have confirmed. The probability level (p-value) offers a cut-off beyond which can assert that the findings are statistically significant ( $P < 0.05$ ). Moreover, if  $P < 0.01$ , considered as highly significant as it shows that the observed difference occurs less than a single time in a hundred times if there were really no actual difference (Davies & Crombie,

2009). However, the direct test results of the hypotheses regarding to the generated model of this research are showed in the Table 5.14.

Table 5.14

*Direct Hypotheses Testing Results of Generated Model*

H No	Exogenous	Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
H 1	Intention	← Overall SERVQUAL	0.588	0.094	6.266	***	Significant
H 1a	Intention	← Compliance	0.403	0.127	3.167	0.002	Significant
H 1b	Intention	← Reliability	-0.880	1.542	-.570	0.568	Insignificant
H 1c	Intention	← Tangibility	-0.049	0.316	-.156	0.876	Insignificant
H 1d	Intention	← Empathy	-0.128	0.542	-.235	0.814	Insignificant
H 1e	Intention	← Assurance	0.020	0.126	.157	0.875	Insignificant
H 1f	Intention	← Responsiveness	0.061	0.236	.258	0.796	Insignificant
H 2	Intention	← Knowledge & Awareness	0.128	0.057	2.243	0.025	Significant

Based on the results showed in the above Table 5.14 the results shows that overall service quality dimensions CARTER model (SERVQUAL) *P*-value has a significant positive influence on the intention to subscribe the Islamic banking (INT) with (Std Estimate / $\beta$ = 0.588,  $P < .001$ \*\*\*). This result revealed that, the probability of getting a critical ratio as large as 6.266 in absolute value is less than 0.001.

Hence, the regression weight for SERVQUAL in the prediction of the INT is significantly different from zero at 0.001 level (two-tailed). In this case Overall SERVQUAL has a significant direct effect on intention to subscribe the Islamic banking (INT) therefore, H1 is supported.

In contrast to that, results also revealed that out of the six CARTER service quality dimensions only compliance (C) were found to be powerful predictors of INT at the 0.005 level of significance with the indicators (Std. Estimate/ $\beta$ = 0.403,  $p$ -value= $P < 0.002$ \*\*\*). However, these results supported the hypotheses, H1a were hypotheses H1b, H1c, H1d, H1e and H1f respectively found to be not supported.

Nevertheless, the direct results also revealed that the knowledge and awareness on KU, were found to be a good predictors of INT at the 0.005 level of significance with the indicators (Std Estimate  $\beta= 0.128$ ,  $P< .025$ ). Therefore hypothesis H2 supported.

Nevertheless, to achieve the research objectives and questions and as mentioned in earlier (Chapter three) regarding SERVQUAL dimensions, each and every variable of these dimensions has treated as an independent variable. Therefore, the results regarding the hypotheses related to the predictive power of service quality dimensions CARTER model (SERVQUAL) towards the direct influence on the intention to subscribe the Islamic banking System (IBS) in Libyan banking sector and financial institution system, revealed that out of the hypotheses H1 through H10, only H1 and H 1a found to be supported:

**H 1a:** Compliance to the IBS (C) has a direct significant and positive influence on intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta=0.127$ , C.R.= 3.167, p-value= 0.002). The probability of getting a critical ratio as large as 3.167 in absolute value is less than 0.05. In other words, the regression weight for compliance in the prediction of the intention to subscribe the IBS is significantly different from zero at 0.002 (two-tailed). In this case, compliance found to be has significant and direct effect on the intention to subscribe the IBS. Therefore, the hypotheses 1a supported.

**H 1b:** Assurance (AS) failed to have a direct influence on the intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta= 0.020$ , C.R.= 0.157, p-value=0.875). The probability of getting a Critical Ratio as large as 0.157 in absolute value is 0.875. In other words, the regression weight for assurance in the prediction of the intention to subscribe the IBS

is significantly different from zero at 0.05 level (two-tailed). In this case, assurance found to be has no significant and direct effect on the intention to subscribe the IBS. Therefore, the hypothesis 1d not supported.

**H 1c:** Reliability (RE) failed to have a direct influence on the intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta$ = -0.880, C.R.= -0.570, p-value=0.568). The probability of getting a Critical Ratio as large as -.570 in absolute value is 0.568. In other words, the regression weight for compliance in the prediction of the intention to subscribe the IBS is significantly different from zero at 0.05 level (two-tailed). In this case, reliability found to be has no significant and direct effect on the intention to subscribe the IBS. Therefore, the hypothesis 1b not supported.

**H 1d:** Tangibility (TA) failed to have a direct significant positive relationship on the intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta$ = -0.049, C.R.= -0.156, p-value= 0.876). The probability of getting a Critical Ratio as large as -0.156 in absolute value is 0.876. In other words, the regression weight for tangibility in the prediction of the intention to subscribe the IBS is significantly different from zero at 0.05 level (two-tailed). In this case, tangibility found to be has no significant and direct effect on the intention to subscribe the IBS. Therefore, the hypothesis 1c not supported.

**H 1e:** Empathy (EM) failed to have a direct relationship on the intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta$ = -0.128, C.R.= -0.235, P-value=0.814). The probability of getting a Critical Ratio as large as -0.235 in absolute value is 0.814. In other words, the regression weight for empathy in the prediction of the intention to subscribe the

IBS is significantly different from zero at 0.05 level (two-tailed). In this case, empathy found to be has no significant and direct effect on the intention to subscribe the IBS. Therefore, the hypothesis 1d not supported.

**H If:** Responsiveness (RE) failed to have a direct relationship on the intention to subscribe the Islamic banking (INT) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta$ = 0.061, C.R. = 0.258, p-value=0.796). The probability of getting a Critical Ratio as large as 0.1258 in absolute value is 0.796. In other words, the regression weight for responsiveness in the prediction of the intention to subscribe the IBS is significantly different from zero at 0.05 level (two-tailed).

In this case, responsiveness found to be has no significant and direct effect on the intention to subscribe the IBS. Therefore, the hypothesis 1d not supported.

**H2-** Knowledge & Awareness on Islamic banking System (KU) has a direct significant and positive influence on intention to subscribe the Islamic banking System (IBS) in Libyan banking sector and financial institution system with (Std. Estimate  $\beta$ = 0.128, C.R. = 2.243 p-value= $P < 0.025$ ), where the probability of getting a critical ratio as large as 2.243 in absolute value is less than 0.05.

Hence, the regression weight for knowledge and awareness on Islamic banking System (KU) in the prediction of the intention to subscribe the Islamic banking (IBS) is significantly different from zero at 0.025 level (two-tailed). In this case knowledge and awareness on Islamic banking System (KU) has a significant and direct effect on intention to subscribe the Islamic banking (IBS) therefore, the hypotheses 2 is supported.



However, new direct hypotheses lines has suggested by the path of AMOS and also found to be supported, the government support (GS) has a direct positive relationship with religious obligation with (Std. Estimate  $\beta=2.316$ , C.R.= 3.984,  $P$ -value=0.001), hence, the new suggested hypothesis 3 is supported.

Therefore, in order to summarize the hypotheses results related to the predictive power of SERVQUAL and its dimensions towards the intention to subscribe the Islamic bank regarding to Libyan banking sector and financial institution system as well as knowledge and awareness on the Islamic bank system, the following Table 5.15 generated in order to illustrate and show the supported and unsupported hypothesis.

Table 5.15  
*Direct Hypotheses Results Summary of Generated Model*

<b>Hypothesis</b>	<b>Hypothesis statement</b>	<b>Status</b>
<b>Hypothesis 1</b>	Service quality dimensions (CARTER model) have a direct relationship with the intention to subscribe the Islamic IBS.	<b>Supported</b>
<b>H 1a</b>	Compliance has a direct relationship with the intention to subscribe the IBS.	<b>Supported</b>
<b>H 1b</b>	Assurance has a direct relationship with the intention to subscribe the IBS.	Not supported
<b>H 1c</b>	Reliability has a direct relationship with the intention to subscribe the IBS.	Not supported
<b>H 1d</b>	Tangibility has a direct relationship with the intention to subscribe the IBS.	Not supported
<b>H 1e</b>	Empathy has a direct relationship with the intention to subscribe the IBS.	Not supported
<b>H 1f</b>	Responsiveness has a direct relationship with the intention to subscribe the IBS	Not supported
<b>Hypothesis 2</b>	Knowledge and awareness on the IBS have a direct relationship with the intention to subscribe the IBS.	<b>Supported</b>
<b>Hypothesis 3 (New)</b>	Government support have significant relationship with the religious obligation	<b>Supported</b>

Therefore, based on the hypotheses results, a simplified path model of the current research findings is presented in the following Figure 5.17 which shows the significant and insignificant relationships.

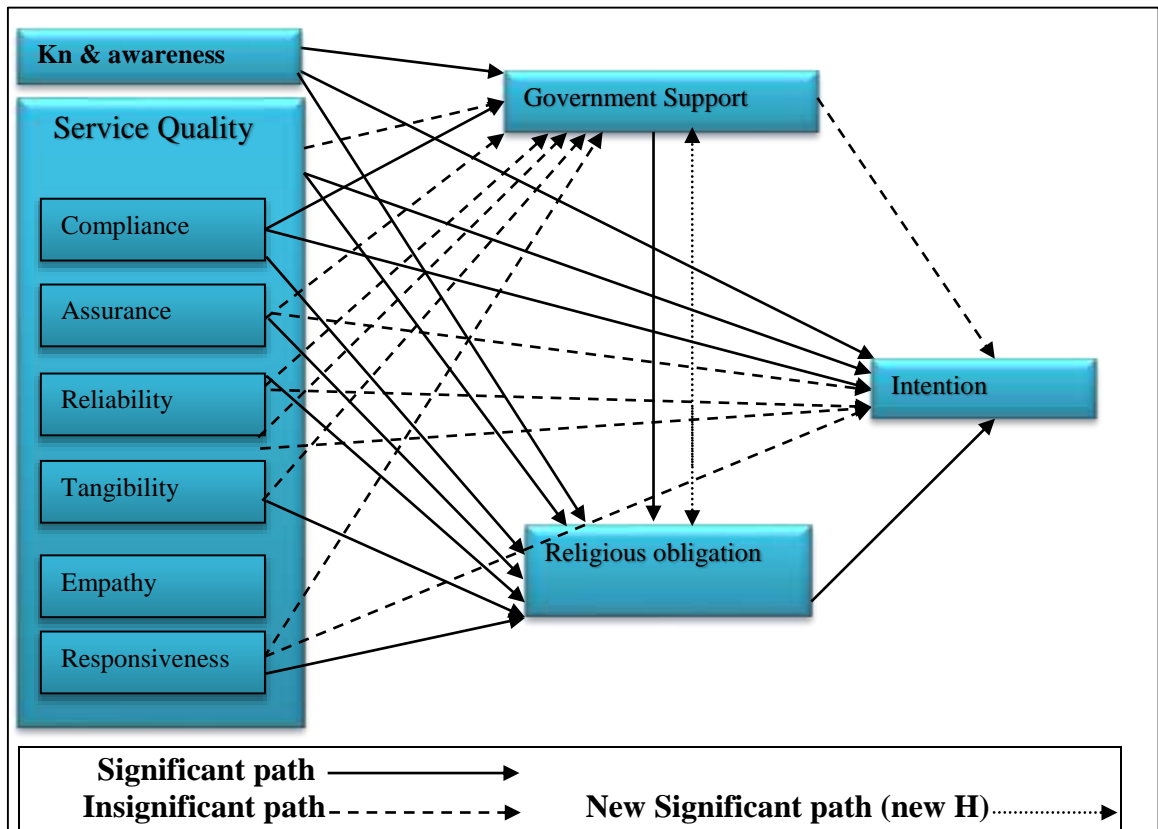


Figure 5.17

*Significant and Insignificant Paths between the Models Constructs/ Hypotheses/Generate Structural Model*

### 5.9.2 The Indirect/Moderating Effect result

In order to achieve the objective 3, 4, 5 and 6 regarding to government support and its influence on the SERVQUAL dimensions and the knowledge, awareness of the Islamic Banking System (KU) and INT relationship which were stated in chapter one as following:

**Objective 3-** To investigate whether a government support moderate the relationship between service quality (CARTER model) dimensions' and the behavioral intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context.

However, as the SERVQUAL (CARTER) Model has six dimensions, the hypotheses have been reformulated to be more specific in order to meet the third research objectives as following:

**Hypothesis 3-** Government support moderates the relations between overall SERVQUAL dimension's (CARTER model) and the intention to subscribe the Islamic banking system (INT).

**H 3a-** Government support moderates the relations between Tangibility and the intention to subscribe the Islamic banking system (INT).

**H 3b-** Government support moderates the relations between Empathy and the intention to subscribe the Islamic banking system (INT).

**H 3c-** Government support moderates the relations between Compliance and the intention to subscribe the Islamic banking system (INT).

**H 3d-** Government support moderates the relations between Reliability and the intention to subscribe the Islamic banking system (INT).

**H 3e-** Government support moderates the relations between Assurance and the intention to subscribe the Islamic banking system (INT).

**H 3f-** Government support moderates the relations between Responsiveness and the intention to subscribe the Islamic banking system (INT).

**Objective 4-** To investigate whether a government support moderate the relationship between service quality (CARTER model) dimensions' and the behavioral intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context.

The fourth hypothesis of the study have been reformulated in order to meet the fourth research objectives as following:

**Hypothesis 4-** Government support moderates the relations between awareness and knowledge on the Islamic banking system and the intention to subscribe the Islamic banking system (INT).

**Objective 5-**To examine whether a religious obligation moderates the relationship between the knowledge and awareness of the Islamic Banking System and the behavioral intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context.

In order to achieve the fifth research objective regarding to religious obligation interaction and its influence on between SERVQUAL dimensions and the knowledge, awareness of the Islamic banking system (KU) and INT relationship, the hypotheses have been reformulated to be more specific as following:

**Hypothesis 5-** Religious obligation moderates the relations between SERVQUAL dimension's (CARTER model) and the intention to subscribe to the Islamic Banking system (INT).

**H 5a-** Religious obligation moderates the relations between Tangibility and the intention to subscribe the Islamic banking system (INT).

**H 5b-** Religious obligation moderates the relations between Empathy and the intention to subscribe the Islamic banking system (INT).

**H 5c-** Religious obligation moderates the relations between Compliance and the intention to subscribe the Islamic banking system (INT).

**H 5d-** Religious obligation moderates the relations between Reliability and the intention to subscribe the Islamic banking system (INT).

*H 5e-* Religious obligation moderates the relations between Assurance and the intention to subscribe the Islamic banking system (INT).

*H 5f-* Religious obligation moderates the relations between responsiveness and the intention to subscribe the Islamic banking system (INT).

***Objective 6-* To examine whether a government support moderates the relationship between the knowledge and awareness (KU) and the behavioral intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context.**

The hypotheses have been formulated in order to meet the research sixth objectives as following:

***Hypothesis 6-*** Religious obligation moderates the relations on between knowledge and awareness (KU) and INT.

Therefore, to achieve the stated indirect hypotheses regarding to the SERVQUAL (CARTER) dimensions and knowledge and awareness, several steps has been involved such as testing the Critical Ratio (C.R.), Beta coefficient, interactions terms and multiple regression test, however likewise for this test and analysis SEM were applied.

However, when it comes to the indirect effects, there are certain rules which have to be applied, the moderate effect occurs when there are those relationships that involve a sequence of relationships with at least one intervening construct involved (Baron & Kenny, 1986). Therefore, it is variable that changes the strength of an effect or relationship between two variables.

Moderators can be indicated as soon as or under what conditions a particular effect can be expected. Besides, a moderator may increase the strength of a relationship or decrease the strength of a relationship or change the direction of a relationship. According to Cooper & Russell & Frone (1990) they claim that, in the classic case a relationship between two variables is significant (i.e., non-zero) under one level of the moderator and zero under the other level of the moderator.

However, the current research examines the effect of government support and religious obligations as moderators' variables. However, several steps that have been recommended by Brown (1996) are followed in order to examine the indirect paths:

- a. A total indirect effect, which consists of all paths from one variable to another that are intervened by at least one additional variable.
- b. The second type is the total effect, which is the sum of the direct and total indirect effects in the model.
- c. The third type is the standardized indirect effect, which is the decomposition of the total indirect effect into standardized indirect paths. The comparison between indirect effect and direct effect can confirm if this path is a full moderator or not. This is through obtaining the values of both direct and indirect effects as in the example below section.

Furthermore, there are several types of moderation effects:

- ***Complete moderation***: Complete moderation can be accrued when the causal effect of independent variables' e.g. SERVQUAL on the dependent variable the intention to subscribe the IBS changed from "significant" to "non-significant" when the moderator variable GS or RO comes into the model (Frazier, Tix, & Barron, 2004).

- **Partial moderation:** Partial moderation can accrued when the causal effect of independent variables' e.g. SERVQUAL on the dependent variable intention to subscribe the IBS is reduced but still remaining “significant” than the partial moderation is exist among the independent “SERVQUAL” and dependent “Intention“ variable once (GS or RO) comes into the model (Frazier *et al.*, 2004).
- **No moderation:** No moderation if the moderations variables failed in reducing or effect on the “significant” relationships among the exist among the independent “SERVQUAL” and dependent “Intention“ variable once (GS or RO) comes into the model (Frazier *et al.*, 2004).

However, Figure 5.18 illustrates the analysis of the moderating influence that considers the relationships among the variables which and displays the moderator model.

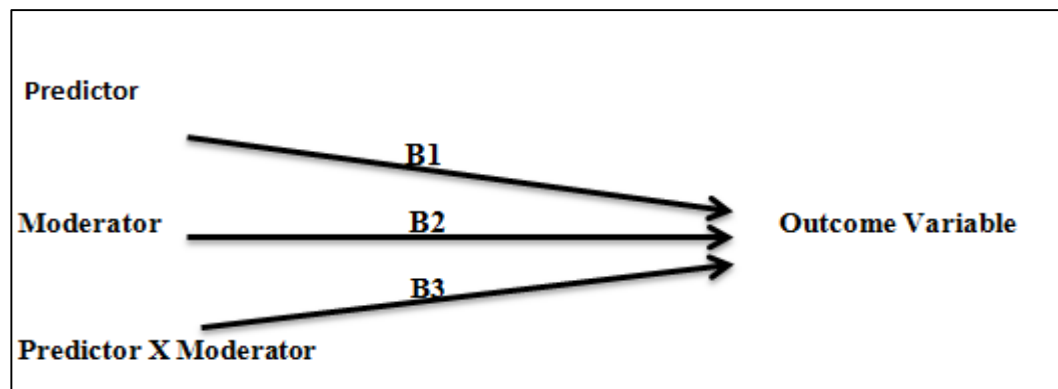


Figure 5.18  
*Moderator Model*

This model which has been proposed by Baron and Kenny (1986) is includes three causal ways that feed into the outcome variable: the influence of the predictor (Path b1), the influence of the moderator (Path b2), and the interaction of the two (Path b3). The hypothesis of the moderator is supported if the interaction (Path b3) is significant.

Therefore, the moderator effect only can occurs when there are three variables independent variables (e.g. SERVQUAL and knowledge and awareness on IBS), moderator variable (government support and religions obligations) and dependent variable (Intention to subscribe the IBS), since this research is examining the interaction's effect of government support and religions obligations, hence, we can calculate the result of moderating effect during the estimation of each variable from output of analysis.

However, the below regression equation illustrates the modeled information stated above:

$$Y = B_0 + B_1X + B_2M + B_3XM + E_1$$

Where, *Outcome Variable* = the intention to subscribe the Islamic banking (INT)

And  $B_1$ ,  $B_2$  and  $B_3$  are the three models (paths),

$B_1$  testing the direct relationship between IV and DV hypotheses 1

$B_2$  testing the direct relationship between M and DV hypotheses 2

$B_3$  testing the direct relationship between XM and DV hypotheses 3

On the other hand, Hair (2010) stated that to examine or testing the moderating effect, there are some steps to follow where the relationships are not always clear, a series of steps can be followed to evaluate the moderation effect. These steps apply whether using SEM or any other General Linear Model (GLM) approach, including multiple regression analysis as reported by Hair (2010). However, for this study SEM was applied.



### 5.9.2.1 The Moderating Effect of Government Support (GS)

It is worthy to mention that, the current research have addressed two research questions which deals with the influence of government support, religious obligation as moderators variables on the relationship between SERVQUAL dimensions, knowledge and awareness and INT in Libya as a dependent variable. Therefore, the following section reports the analysis of the influence of government support interactions' on the relationship between SERVQUAL dimensions, knowledge and awareness and INT in Libya as a dependent variable:

#### First - The Moderating Effect of Government Support (GS) between SERVQUAL and the Intention to Subscribe the Islamic Banking (INT) in Libya:

Since this study make use of SEM, the results of the Structural Equation Modeling SEM, were reported through the following models as illustrated in the moderation diagram steps:

##### *First Model:*

In this model only the direct effect of the independent variables (SERVQUAL dimensions) and dependent variable were included. The results in Table 5.16 shows that, overall service quality dimensions' CARTER model (SERVQUAL) has significant positive direct effect on INT with (Std Estimate / $\beta$ = 0.588, C.R. = 6.266,  $P \leq .001^{***}$ ) which is supported the first hypotheses.

Table 5.16  
*Examining the Direct Effect of Overall SRVQUAL and Intention*

	Exogenous		Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
<b>H 1</b>	Intention	←	Overall SERVQUAL	0.588	0.094	6.266	***	Significant
<b>H 1a</b>	Intention	←	Compliance	0.403	0.127	3.167	0.002	Significant
<b>H 1b</b>	Intention	←	Reliability	-0.880	1.542	-0.570	0.568	Insignificant
<b>H 1c</b>	Intention	←	Tangibility	-0.049	0.316	-0.156	0.876	Insignificant
<b>H 1d</b>	Intention	←	Empathy	-0.128	0.542	-0.235	0.814	Insignificant
<b>H 1e</b>	Intention	←	Assurance	0.020	0.126	0.157	0.875	Insignificant
<b>H 1f</b>	Intention	←	Responsiveness	0.061	0.236	0.258	0.796	Insignificant

However, the results in Table 5.16 revealed that the probability of getting a critical ratio as large as 6.266 in absolute value is less than 0.001. Hence, the regression weight for SERVQUAL in the prediction of the intention to subscribe the Islamic banking (IBS) is significantly different from zero at 0.001 level (two-tailed).

More specifically, one of the service quality dimensions (CARTER model) compliance to the IBS found to have a positive direct significant effect on the INT with ( $\beta=0.403$ , C.R= 3.167,  $p<0.002$ ) where, the probability of getting a critical ratio as large as 3.167 in absolute value is less than 0.002. Whereas, the results revealed that, the other SERVQUAL dimensions found to have insignificant direct effect on the INT as it showed in Table 5.16.

Therefore, although overall service quality dimensions (CARTER model) shows a powerful predictors of the direct relationship with the INT in Libya with the indicators (Std Estimate / $\beta= 0.588$ , C.R. = 6.266,  $P\leq .001^{***}$ ) the compliance to the IBS showed a powerful predictors of the direct relationship with the INT in Libya context with the indicators as it showed in the Figure 5.19.

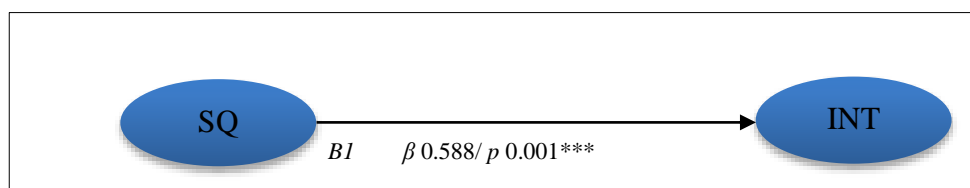


Figure 5.19  
*Direct Relationship between Overall Service Quality and Intention to Subscribe the Islamic Banking*

***Second Model:***

***a- The Moderation Effect of Government Support (GS) on between Overall SERVQUAL and INT:***

In this model, the interaction between the overall service quality dimensions (SERVQUAL) and INT was examined after the introduction of the moderating variable, which is to test the moderating effect of the government support. The result revealed that, the introduction of the interactive terms did not improved the predictive power of the model as the model had an S.E 0.105 with significant change at the 0.001 level. However, the results in Table 5.16 indicated that overall (SERVQUAL dimensions) were found to be significant determinant of INT with ( $\beta=0.588$ , C.R=6.266,  $p<0.001$ ). In addition, out of six service quality dimensions (CARTER model) only compliance to IBS were found to be significant determinant of INT with ( $\beta=0.403$ , C.R=3.167,  $p<0.002$ ).

Therefore, based on the interaction terms the interaction between overall service quality dimensions (SERVQUAL) compliance and the INT were examined after the introduction of the moderating variable of government support. The interaction terms between INT and overall (SERVQUAL) were examined and it revealed that, while the introducing the interaction of government support on between INT and overall (SERVQUAL dimensions) the terms of interaction was found to be significant at the 0.001 level of significant ( $\beta=0.588$ , C.R= 6.266,  $p= 0.001$ ) with S.E 0.94, the interaction term between INT and government support was significant at the 0.001 level ( $\beta= 0.575$ , C.R= 10.499,  $p= 0.001$ ) with S.E of 0.55.

However, Figure 5.20 illustrated the moderating effect of government support between overall SERVQUAL and the INT relationship.

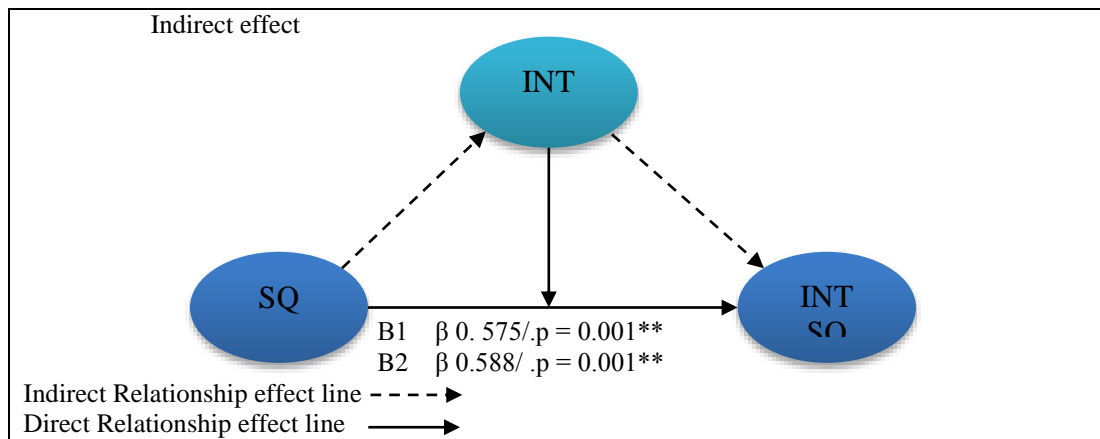


Figure 5.20

*The Moderation Effect of Government Support on Intention - SERVQUAL Relationship (No Moderation Supported)*

Therefore, based on the information given in Table 5.16 and the Figure 5.20 and to the interaction terms of moderation, government support found to be not moderating the relationship between overall SERVQUAL and INT, hence H3 is not supported.

However, in contrary to the findings related compliance to IBS, the result revealed in Table 5.17 and in order to conclude about the moderating effect of government support on the relationship between responsiveness, reliability, empathy, tangibility and assurance and INT.

The results revealed in Table 5.17 that, there were no direct relationship detected between (the responsiveness, reliability, empathy, tangibility and assurance) and INT and since one of the moderation rules have to reinforced the relationship between independent and dependent variables to be significant (i.e., non-zero) under one level of the moderator and zero under the other level of the moderator.

Table 5.17

*Examining the Moderating effect of Government Support*

	Exogenous		Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
H 1b	Intention	←	Reliability	-0.880	1.542	-.570	.568	Insignificant
H 1c	Intention	←	Tangibility	-0.049	.316	-.156	.876	Insignificant
H 1d	Intention	←	Empathy	-0.128	.542	-.235	.814	Insignificant
H 1e	Intention	←	Assurance	0.020	.126	.157	.875	Insignificant
H 1f	Intention	←	Responsiveness	0.061	.236	.258	.796	Insignificant

Therefore, responsiveness, reliability, empathy, tangibility and assurance did not included in the moderator’s interaction test of Libyan government support. However, the following subsection displays the result regarding the moderation effect of government support (GS) on between compliance and INT:

**b- The Moderation Effect of Government Support (GS) between Compliance and INT:**

The interaction terms of government support on between compliance and INT were examined. The result revealed that, while the introducing the interaction of government support to the model (on between compliance to IBS and INT) the terms of interaction were found to be significant at the 0.05 level of significant ( $\beta= 0.403$ , C.R= 3.167,  $p<0.002$ ) with S.E 0.127, the interaction term of government support was improves the significant relationship to be at the 0.001 level ( $\beta= 0.098$ , C.R= 1.697,  $p= 0.001$ ) with S.E of 0.57 as it shows in Table 5.14. However, Table 5.18 illustrated the moderating effect of government support on the compliance and INT relationship.

Table 5.18  
*Examining the Moderating Effect of Government Support*

Exogenous	Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
B1 Intention	← Predictors CO	0.526	0.057	9.287	***	Significant
B2 Intention	← Moderators GS	0.098	0.057	1.697	0.090	Insignificant
B3 Intention	← Interactions GS x CO	-0.028	0.059	-0.478	0.633	Insignificant

In relation to that and to demonstrate the above mentioned moderated relationship, the three-way interaction graph in Figure 5.21 was created. It was clear from the graph that the interactions of Libyan government support of Islamic banking industry enhance and strengthen the relationship on between compliance and intention to subscribe the Islamic banking (INT).

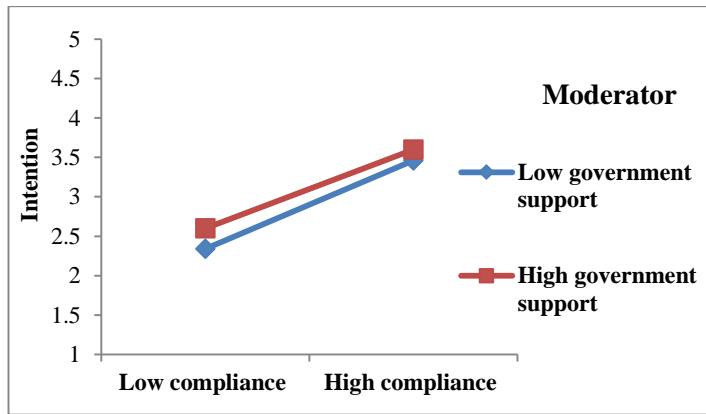


Figure 5.21  
*The Moderation Effect of Government Support on Intention - Compliance Relationship (Partial Moderation Supported)*

Therefore, based on the information generated from SEM results showed in Table 5.18 and the graphic Figure 5.21 and to the interaction terms of moderation which is accordingly since the positive causal effect of compliance on the dependent variable intention to subscribe the IBS has enhanced/strengthened from 0.005 to 0.001 level, it can conclude the partial moderation is exist on the relationship between the compliance to IBS and INT once government support comes into the model, hence H3a is not supported.

However, regardless to the obvious weak and slow role of the Libyan government support to the Libyan Islamic Banking sector, the three-way interaction revealed that the higher government support emphases' and provided to the banks, the higher compliance to IBS will be and enhancing in the relationship on between compliance to IBS and INT.

**Second - The Moderating Effect of Government Support (GS) between Knowledge and Awareness on the Islamic Banking System and the Intention to Subscribe the Islamic Banking in Libya:**

However, to achieve the fifth research objectives regarding to the knowledge and awareness of the Islamic Banking System which were as following:

**Objectives 5-** To examine whether a government support moderates the relationship between the knowledge and awareness on Islamic banking system and the behavioral intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

Based on that and to achieve these mentioned objectives, the moderating influence of government support on the relationship between knowledge and awareness on IBS and the INT reported and discussed through the following two models:

**First Model:**

In this model only the direct effect of the knowledge and awareness of the Islamic banking (KU) and INT were examined. However, the results revealed that KU has a direct significant positive influence on INT with (Std Estimate / $\beta$ = 0.128, C.R.= 2.243, P= 0.025) as showed in Table 5.19, hence H2 supported.

Table 5.19  
Examining the Direct Relationship between Knowledge and Awareness of the Islamic Banking (KU) and Intention to Subscribe the Islamic Banking

Exogenous	Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
H 2 Intention	← KU	0.128	0.057	2.243	0.025	Significant

However, Table 5.19 showed that the probability of getting a critical ratio as large as 2.243 in absolute value is less than 0.05. Hence, the regression weight for knowledge and awareness of the Islamic banking in the prediction of the IBS is significantly different from zero at 0.05 level (two-tailed). In this case KU has a significant direct effect on INT therefore, H2 is supported. Figure 5.22 displays the direct relationship of KU and INT.

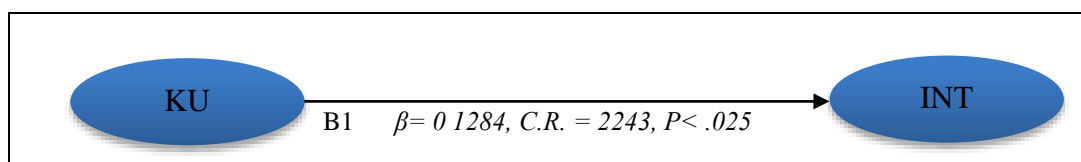


Figure 5.22  
Direct Relationship of KU and INT

**Second Model:**

In this model, the interaction of government support on between the KU and the INT was examined after the introduction of the government support in order to test the moderating effect. However, the result revealed that, the introduction of the interactive terms of government support improved the predictive power of the model as the model had an S.E 0.057 with significant change at the 0.005 level. The results in Table 5.20 indicated that KU were found to be significant determinant of INT with (Std Estimate  $\beta$ = 0.210, C.R.= 3.129, P= 0.002 level) after the introduction of the moderator GS.

Table 5.20  
*Examining the Interaction Effect of GS on the Relationship between KU and INT*

Exogenous	Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
<b>B1</b> Intention	← Predictors KU	.210	.067	3.129	.002	Significant
<b>B2</b> Intention	← Moderators GS	.033	.068	.485	.628	Insignificant
<b>B3</b> Intention	← Interactions GS x KU	.061	.064	.954	.340	Insignificant

However, Table 5.20 showed that the probability of getting a critical ratio as large as 3.129 in absolute value is less than 0.05. Hence, the regression weight for KU in the prediction of the INT is significantly different from zero at 0.05 level (two-tailed). Therefore, the interaction term of GS on between the INT and KU was positively significant at the 0.005 level with S.E of 0. 067.

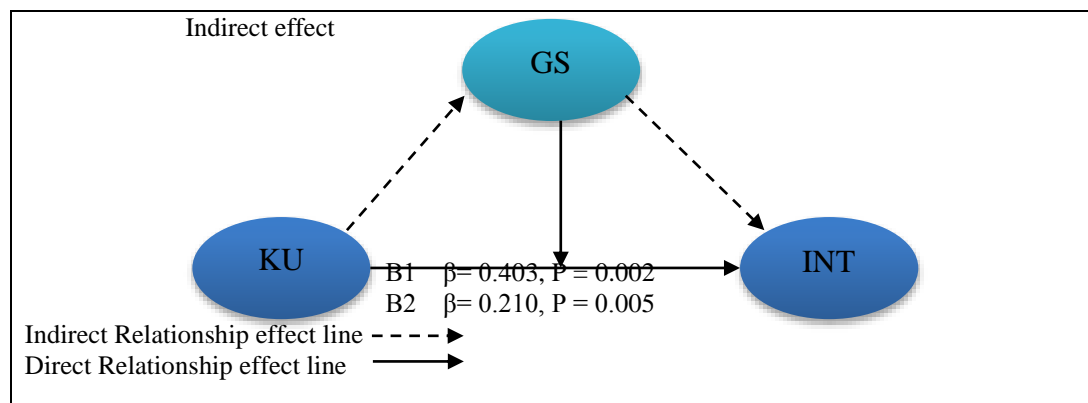


Figure 5.23  
*The Moderation Effect of Government Support on Intention - KU Relationship (Partial Moderation)*



Hence, based on the information given and gathered from Table 5.20 and Figure 5.23 government support has significant interactive terms on between KU and the INT relationship.

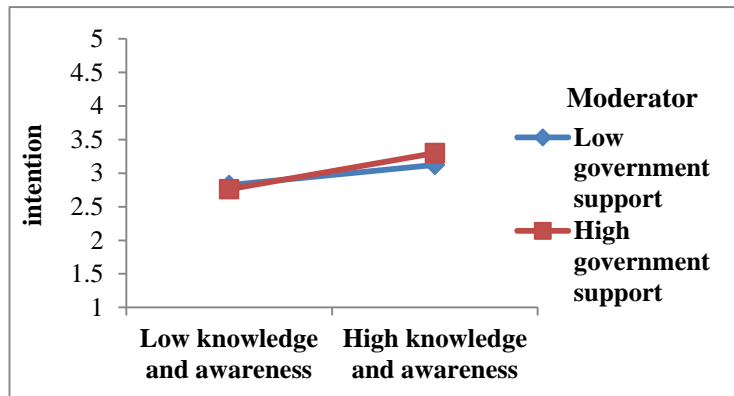


Figure 5.24  
*Government Support Strengthens the Positive Relationship between Knowledge and Awareness and Intention*

Nonetheless, the Figure 5.24 showed that government support is more beneficial to the INT with high government support than to low government support. Generally, government support strengthens/enhances the positive relationship between knowledge and awareness and intention, hence, it can conclude the Partial moderation is exist between the KU and INT once government support comes into the model; therefore H4 is supported.

### 5.9.2.2 The Moderating Effect of Religious Obligation (RO)

As mentioned early, this research have addressed two research questions which deals with the influence of government support, religious obligation as moderators variables on the relationship between SERVQUAL dimensions, knowledge and awareness as independent variables and the intentions to subscribe the Islamic Banking System IBS in Libya as a dependent variable.

Therefore, the following sections addresses the analysis of religious obligation on the relationship between SERVQUAL dimensions, knowledge and awareness as

independent variables and the intentions to subscribe the Islamic Banking System INT in Libya as a dependent variable:

**First -The Moderating Effect of Religious Obligation (RO) Between SERVQUAL and the Intention to Subscribe the Islamic Banking in Libya:**

In the following section, the results of the structural equation Modelling SEM regarding the moderation effect of religious obligation (RO) were reported:

***First Model:***

In this model only the direct effect of the independent variables (SERVQUAL dimensions) and dependent variable were included. However, the results for this model were the same as discussed in the previous sections. Likewise, the results were reported in Table 5.14.

***Second Model:***

**a- The Moderating Effect of Religious Obligation (RO) between Overall SERVQUAL and INT**

In this model, the interaction of religious obligation (RO) on between the service quality dimensions (SERVQUAL) and INT was examined after the introduction of the moderating variable which is to test the moderating effect of RO. The result revealed that, the introduction of the interactive terms did not improved the predictive power of the model as the model had an S.E 0.060 with significant change at the 0.001 level.

The results in Table 5.21 indicated that (overall SERVQUAL) found to have a significant determinant to the intention to subscribe the Islamic banking (INT) with ( $\beta=0.466$ , C.R= 7.823,  $p<0.001$ ).

Table 5.21  
Examining the Moderating Effect of Religious Obligation (RO)

Exogenous	Endogenous	Std Estimate	S.E .	C.R.	P-value	Hypothesis results
B1 Intention	← Predictors SERVQUAL	.466	.060	7.823	***	Significant
B2 Intention	← Moderators RO	.255	.059	4.350	***	Significant
B3 Intention	← Interactions SERVQUAL x RO	.000	.057	.008	.994	Insignificant

Figure 5.25 shows the effect of the religious obligation interaction at 0.0001 level on between the SERVQUAL and INT in B1 and B2.

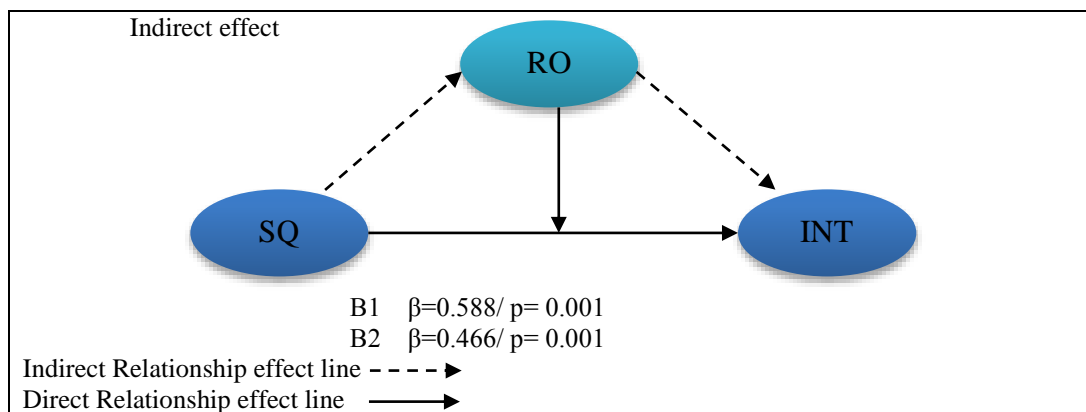


Figure 5.25  
The Moderation Effect of Religious Obligation on Overall SERVQUAL - INT Relationship (Partial Moderation)

Therefore, the results revealed that RO have interactive terms on between SERVQUAL and the INT as it shown in the Table 5.21. The direct relationship between RO and INT was occurs at the level of ( $\beta$  0.588/ p 0.001) with S.E 0.94, on the other hand, when introduce interaction influence of religious obligation to the model it improve the positive slope at the level of ( $\beta=.466/ p<0.001$ ) with S.E 0.060, which means overall SERVQUAL dimensions have strengthens the relationship effect on intention to the customers when they have enough believe that the Islamic banking applying the RO rules in their Islamic financial products, where appears to be that there are no much changes in the *P*-values in this case.

To illustrate the above mentioned moderated relationship, graph in Figure 5.25 was created. It was clear from the graph that in the Libyan bank client's perception

particularly in the Islamic banking industry, the existence of religious obligation rules does enhance the overall intentions to join the Islamic banking system. In addition, the slope in graph 5.25 shows that religious obligation strengthens the positive relationship between SERVQUAL and INT. Therefore, Partial moderation exists on between the SERVQUAL and INT relationship once religious obligation comes into the model therefore Hence H5 supported.

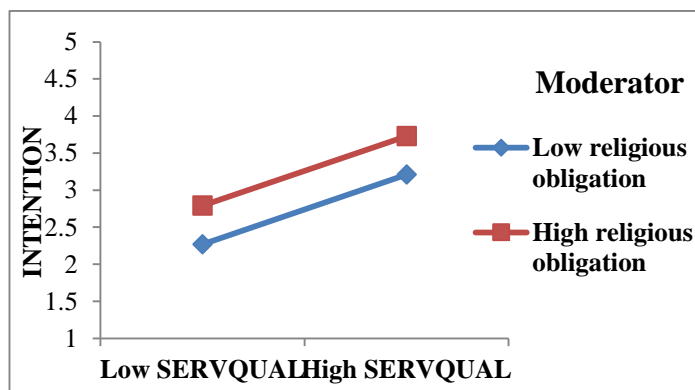


Figure 5.26  
*Religious Obligation Strengthens the Positive Relationship between SERVQUAL and Intention (PartialModeration)*

Nonetheless, the graph in Figure 5.26 showed that, religious obligation is more beneficial to the INT with high religious obligation than to low religious obligation involvement. Generally, religious obligation strengthens/enhances the positive relationship between overall SERVQUAL and intention.

However, in contrary to the findings related to direct significant relationship of compliance and INT shown in previous Table 5.14; and in order to conclude about the moderating effect of religious obligation on the relationship between assurance, reliability, tangibility, empathy, and responsiveness and INT. The results revealed that, there were no direct insignificant relationship have been detected between the assurance, reliability, tangibility, empathy, and responsiveness and INT. Therefore, since one of the moderation rules have to reinforced the relationship between

independent and dependent variables to be significant (i.e., non-zero) under one level of the moderator and zero under the other level of the moderator. Thus, assurance, reliability, tangibility, empathy, and responsiveness did not included in the moderator's interaction test of religious obligation. The following subsection displays the result regarding the moderation effect of religious obligation (RO) between compliance and INT:

**b- The Moderating Effect of Religious Obligation (RO) between Compliance CO and INT**

The interaction terms between compliance and INT were examined and it revealed that, the direct relationship between intention to INT and compliance was found to be positively significant at the 0.05 level ( $\beta= 0.403$ , C.R= 3.167,  $p<0.002$ ) with S.E 0.127, however, while introducing the interaction of religious obligation on between intention to INT and CO the interaction terms between of religious obligation improved the significant relationship level to be at the 0.00 level ( $\beta= 0.410$ , C.R= 7.143,  $p= 0.001$ ) with S.E of 0.57 as it shows in Table 5.22.

Table 5.22  
*Examining the Moderating Effect of Religious Obligation on between CO and INT*

Exogenous	Endogenous	Std Estimate	S.E.	C.R.	P-value	Hypothesis results
B1 Intention	← Predictors CO	0.410	0.057	7.143	***	Significant
B2 Intention	← Moderators RO	0.314	0.057	5.539	***	Significant
B3 Intention	← Interactions RO X CO	-0.066	0.055	-1.198	.231	Insignificant

Therefore, based on the results revealed in table 5.22, RO have positive interactive terms between compliance and the INT. The direct relationship between religious obligation and intention to subscribe the Islamic banking was occurs at the level of ( $\beta= 0.403$ ,  $p = 0.001$ ) with S.E 0.127, on the other hand when introduce interaction influence of religious obligation to the model it improve the positive slope at the level of ( $\beta 0.410/ p 0.001$ ) with S.E 0.057, which means compliance have strengthens the

relationship effect on intention to the customers when they have enough believe that the Islamic banking applying the religious obligation rules in their Islamic financial products.

However, Figure 5.27 was created to illustrate the moderating effect of religious obligation on between compliance and INT relationship.

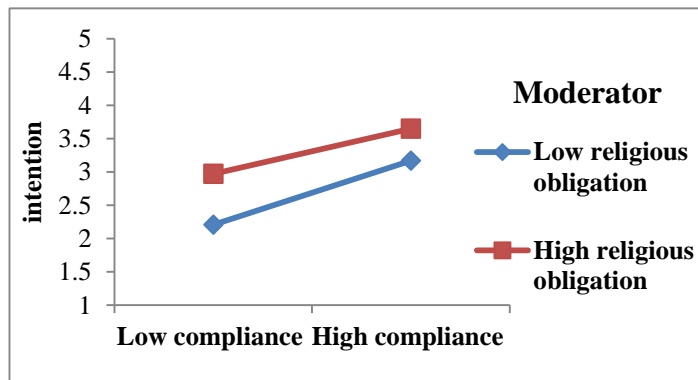


Figure 5.27  
*The moderating Effect of Religious Obligation on Intention - Compliance Relationship (Partial Moderation Supported)*

To explain the above mentioned moderated relationship, graph in Figure 5.27 was created. It was clear from the graph that in the Libyan bank clients’ perception, particularly in the Islamic banking industry, the existence of religious obligation rules does enhance the overall intentions to join the Islamic banking system. However, the religious obligation strengthens the positive relationship between compliance and intention. Therefore, partial moderation is exists on between the compliance and INT once religious obligation comes into the model hence H5a is supported.

**Second - The Moderating Effect of Religious Obligation (RO) between Knowledge and Awareness of the Islamic Banking System and the Intention to Subscribe the Islamic Banking in Libya**

In order to achieve the sixth research objective which is stated in chapter one which is:

**Objective 6: To examine whether a religious obligation moderates the relationship between the knowledge and awareness of the Islamic banking System and the behavioral intention to subscribe the Islamic Banking System (IBS) within the Libyan banking sector context.**

The moderating role of religious obligation (RO) on the relationship between knowledge and awareness of the Islamic banking as independent variables and the intentions to subscribe the Islamic banking in Libya as a dependent variable were reported and discussed through the following models:

***First Model:***

In this model only the direct effect of the independent variables KU and dependent variable INT were included. The results showed that KU  $\beta$  has a direct significant and positive influence on INT with (Std Estimate / $\beta$ = 0.031, C.R. = 2.677, P= 0.007) which is supported the direct hypothesis.

However, the results for this model were the same as discussed in the previous sections. However, the results were reported in Table 5.14 where H2 supported. Figure 5.28 shows the direct relationship line between KU and INT at 0,005 level.

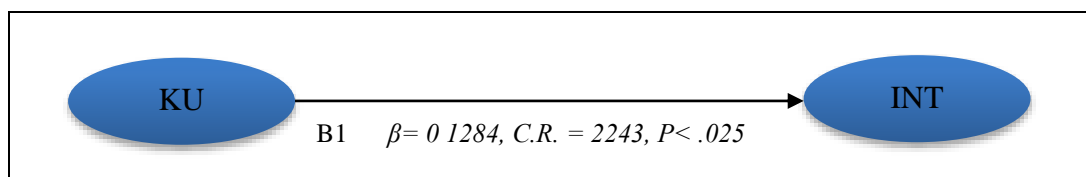


Figure 5.28  
*Direct Relationship of Knowledge and Awareness on the Islamic Banking (KU) and Intention to Subscribe the Islamic Banking*

***Second Model:***

In this model, the interaction between the KU and the INT was examined after the introduction of the religious obligation RO in order to test the moderating effect.

However, the result revealed that, the introduction of the interactive terms of RO changed the predictive power of the model as the model had an S.E 0.057 with significant change at the 0.005 level to be insignificant. The results in Table 5.23 indicated that KU found to be insignificant determinant of INT with (Std Estimate / $\beta$ = 0.060, C.R. = 0.952, P= 0.341 level) after the introduction of the moderator (RO) to the model.

Table 5.23  
*Examining the Interaction Effect of Religious Obligation on the Relationship between (KU) and (INT)*

Exogenous	Endogenous	Estimate	S.E.	C.R.	P	Status
<b>B1</b> Intention	← Predictors KU	.060	0.063	0.952	0.341	Insignificant
<b>B2</b> Intention	← Moderators RO	0.444	0.062	7.205	***	significant
<b>B3</b> Intention	← Interactions RO X KU	0.155	0.060	2.571	0.010	significant

However, Table 5.23 shows that the probability of getting a critical ratio as large as 0.952 in absolute value is less than 0.341. Hence, the regression weight for knowledge and awareness of the Islamic banking in the prediction of the INT is not significantly different from zero at 0.005 level (two-tailed). Figure 5.29 shows the direct and indirect relationship change of the two models in attempting to test the religious obligation interaction on between the KU and INT in B1 and B2.

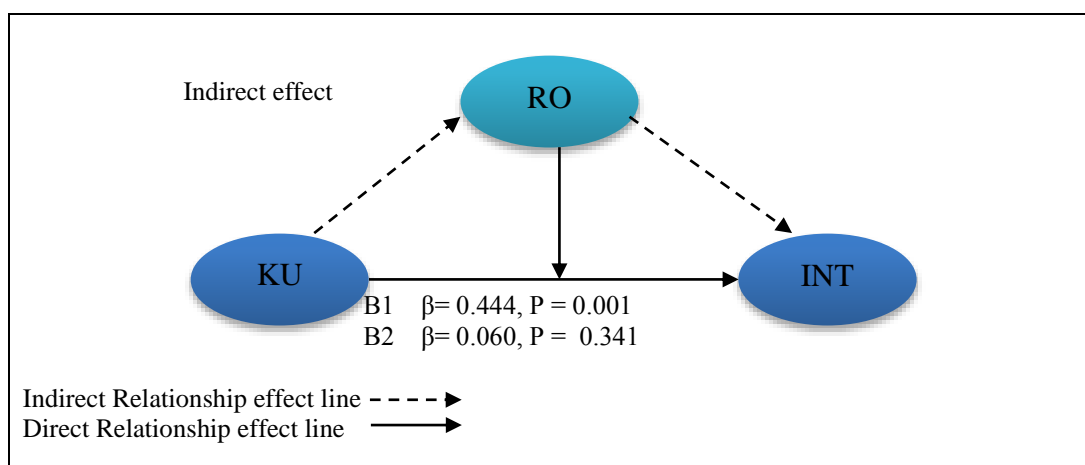


Figure 5.29  
*The Moderating Effect of RO on Intention - KU Relationship (Complete Moderation)*

Therefore, according to Frazier, Tix, and Barron, (2004) since complete moderation rules can accrued when the causal effect of independent variables' KU on the INT



changed from “significant” to “non-significant” when the moderator variable RO comes into the model. Therefore, based on the given results we can conclude that RO is playing the rules of complete moderation on between KU on the INT.

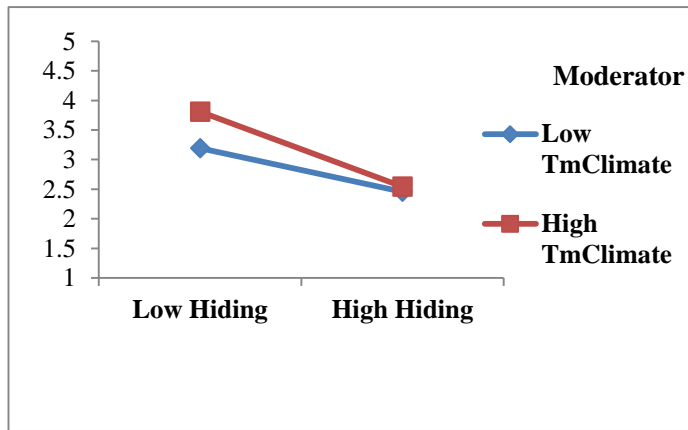


Figure 5.30  
*Religious Obligation Strengthens the Positive Relationship between Knowledge and Awareness and Intention.*

Nonetheless, to illustrate the above mentioned moderated relationship, graph in Figure 5.30 was created. Figure 5.30 showed that religious obligation is more beneficial to the INT with high religious obligation than to low religious obligation.

However, it was clear from the graph that, in the Libyan bank clients’ perception, the existence of religious obligation rules does enhance their behavioral intentions to join the Islamic banking system. Generally, religious obligation strengthens/enhances the positive relationship between KU and INT, hence, it can conclude the complete moderation is exist on between the KU and INT once religious obligation comes into the model therefore H6 is not supported.

Consequently, based on the result given from the SEM analysis conducted in this chapter five, the following Tables 5.24 and 5.25 summarized the hypotheses results as well as the details findings related to indirect and direct hypotheses testing procedures.

Table 5.24

*Summary of the Hypothesis Results*

<b>Hypothesis</b>	<b>Direct hypothesis statement</b>	<b>Status</b>
<i>Hypothesis 1</i>	Service quality dimensions (CARTER model) have a direct relationship with the intention to subscribe the Islamic IBS.	Supported
<i>H 1a</i>	Compliance has a direct relationship with the intention to subscribe the IBS.	Supported
<i>H 1b</i>	Assurance has a direct relationship with the intention to subscribe the IBS.	Not supported
<i>H 1c</i>	Reliability has a direct relationship with the intention to subscribe the IBS.	Not supported
<i>H 1d</i>	Tangibility has a direct relationship with the intention to subscribe the IBS.	Not supported
<i>H 1e</i>	Empathy has a direct relationship with the intention to subscribe the IBS.	Not supported
<i>H 1f</i>	Responsiveness has a direct relationship with the intention to subscribe the IBS	Not supported
<i>Hypothesis 2</i>	Knowledge and awareness on the IBS have a direct relationship with the intention to subscribe the IBS.	Supported
<b>Hypothesis</b>	<b>Indirect hypothesis statement</b>	<b>Status</b>
<i>Hypothesis 3</i>	Government support moderates the relations between overall SERVQUAL dimension's (CARTER model) and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 3a</i>	Government support moderates the relations between compliance and the intention to subscribe the Islamic banking System (INT).	Partial Supported
<i>H 3b</i>	Government support moderates the relations between assurance and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 3c</i>	Government support moderates the relations between tangibility and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 3d</i>	Government support moderates the relations between empathy and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 3e</i>	Government support moderates the relations between reliability and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 3f</i>	Government support moderates the relations between responsiveness and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>Hypothesis 4</i>	Government support moderates the relations between knowledge awareness on the Islamic Banking System and the intention to subscribe the Islamic banking System (INT).	Partial Supported
<i>Hypothesis 5</i>	Religious obligation moderates the relations between SERVQUAL dimension's (CARTER model) and the intention to subscribe to the Islamic banking System (INT).	Partial Supported
<i>H 5a</i>	Religious obligation moderates the relations between compliance and the intention to subscribe the Islamic banking System (INT).	Partial Supported
<i>H 5b</i>	Religious obligation moderates the relations between assurance and the intention to subscribe the Islamic banking System (IBS INT	Not supported
<i>H 5c</i>	Religious obligation moderates the relations between reliability and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 5d</i>	Religious obligation moderates the relations between tangibility and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>H 5e</i>	Religious obligation moderates the relations between empathy and the intention to subscribe the Islamic banking System (INT).	Not supported

Table 5.24 (Continued)

<i>H 5f</i>	Religious obligation moderates the relations between responsiveness and the intention to subscribe the Islamic banking System (INT).	Not supported
<i>Hypothesis 6</i>	Religious obligation moderates the relations between knowledge and awareness on the Islamic banking System (IBS) and the intention to subscribe to the Islamic banking System (INT).	Fully Supported
<i>Hypothesis 7 (New)</i>	Government support have significant relationship with the religious obligation	Supported direct relationship

Table 5.25

*Direct and Indirect Interaction Effect of Government Support and Religious Obligation Variables Output of the Generated Model of AMOS*

H No	Exogenous	Moderators By	Endogenous	Indirect Effects Estimate	Direct Effects Estimate Std Estimate	Moderating Hypothesis
H 1	<b>Intention</b>	<b>Direct relationship</b>	← <b>Overall SERVQUAL</b>		0.588 p 0.001***	Supported
H 1a	<b>Intention</b>	<b>Direct relationship</b>	← <b>Compliance</b>		0.403 p 0.002***	Supported
H 1b	<b>Intention</b>	<b>Direct relationship</b>	← <b>Assurance</b>		0.020 p 0.876	Not Supported
H 1c	<b>Intention</b>	<b>Direct relationship</b>	← <b>Reliability</b>		0.219 p 0.568	Not Supported
H 1d	<b>Intention</b>	<b>Direct relationship</b>	← <b>Tangibility</b>		0.282 p 0.876	Not Supported
H 1e	<b>Intention</b>	<b>Direct relationship</b>	← <b>Empathy</b>		0.451 p 0.814	Not Supported
H 1f	<b>Intention</b>	<b>Direct relationship</b>	← <b>Responsiveness</b>		0.266 p 0.796	Not Supported
H 2	<b>Intention</b>	<b>Direct relationship</b>	← <b>Knowledge &amp; Awareness</b>		0.128 p 0.025***	Supported
H 2a	Intention	← Government support	← Knowledge & Awareness	0.210 p 0.02***	0.128 0.025	Supported Partial Moderation
H 3	Intention	← Government support	← Overall SERVQUAL	0.588 p 0.001***	0.575 p 0.001***	Supported Partial Moderation
H 3a	Intention	← Government support	← Compliance	0.0.098 p 0.001***	0.526 p 0.001***	Supported Partial Moderation
H 3b	Intention	← Government support	← Assurance	0.450 p 0.001***	0.020 p 0.875	Not Supported
H 3c	Intention	← Government support	← Reliability	.017 p 0.953	-0.880 p 0.568	Not Supported
H 3d	Intention	← Government support	← Tangibility	-0.146 p 0.690	-0.046 p 0.876	Not Supported
H 3e	Intention	← Government support	← Empathy	0.082 p 0.855	-0.126 p 0.876	Not Supported
H 3f	Intention	← Government support	← Responsiveness	-0.037 p 0.890	0.061 p 0.796	Not Supported
H4	Intention	← Religious Obligation	← Overall SERVQUAL	0.466 p 0.001***	0.575 p 0.001***	Supported Partial Moderation
H4a	Intention	← Religious Obligation	← Compliance	0.410 p 0.001***	0.403 p 0.002***	Supported Partial Moderation
H4b	Intention	← Religious Obligation	← Assurance	0.380 p 0.001***	0.020 p 0.876	Not Supported
H4c	Intention	← Religious Obligation	← Reliability	0.312 p 0.953	0.219 p 0.568	Not Supported
H4d	Intention	← Religious Obligation	← Tangibility	0.344 p 0.690	0.282 p 0.876	Not Supported
H4e	Intention	← Religious Obligation	← Empathy	0.434 p 0.855	0.451 p 0.814	Not Supported
H4f	Intention	← Religious Obligation	← Responsiveness	0.235 p 0.001***	0.266 p 0.796	Not Supported
H5	Intention	← Religious Obligation	Knowledge & Awareness	0.060 P 0.341	0.128 p 0.025***	Supported Complete Moderation

Table 5.26

*Summary of the Significant and Insignificant Relationships among the Variables as Revealed by the Study Findings*

<i>Variable Name</i>		<i>Variable Name</i>	<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P-value</b>	<b>Status</b>
Intention	<---	Knowledge & Awareness	0.128	.057	2.243	0.025	Significant
Intention	<---	religious obligation	0.079	.097	.812	0.417	Insignificant
Intention	<---	Government support	-0.001	.013	-.079	0.937	Insignificant
Intention	<---	Compliance	0.508	.219	2.321	0.002	Significant
Intention	<---	Assurance	0.168	.233	.722	0.875	Insignificant
Intention	<---	Reliability	0.324	.219	1.481	0.568	Insignificant
Intention	<---	Tangibility	-0.075	.282	-.268	0.876	Insignificant
Intention	<---	Empathy	-0.285	.451	-.633	0.814	Insignificant
Intention	<---	Responsiveness	0.350	.266	1.315	0.796	Insignificant
religious obligation	<---	Knowledge & Awareness	0.051	.010	5.179	***	Significant
religious obligation	<---	Compliance	0.190	.189	1.004	0.315	Insignificant
religious obligation	<---	Assurance	-0.058	.202	-.285	0.775	Insignificant
religious obligation	<---	Reliability	0.065	.191	.340	0.734	Insignificant
religious obligation	<---	Tangibility	.0227	.253	.896	0.370	Insignificant
religious obligation	<---	Empathy	-0.068	.382	-.179	0.858	Insignificant
religious obligation	<---	Responsiveness	0.171	.236	.726	0.468	Insignificant
Government support	<---	Knowledge & Awareness	0.088	.072	1.210	0.226	Insignificant
Government support	<---	religious obligation	2.058	.599	3.433	***	Significant
Government support	<---	Compliance	0.775	1.323	.586	0.558	Insignificant
Government support	<---	Assurance	-1.235	1.439	-.858	0.391	Insignificant
Government support	<---	Reliability	-2.275	1.373	-1.657	0.098	Insignificant
Government support	<---	Tangibility	1.659	1.799	.922	0.356	Insignificant
Government support	<---	Empathy	1.062	2.746	.387	0.699	Insignificant
Government support	<---	Responsiveness	-0.123	1.663	-.074	0.941	Insignificant

## **5.10 Chapter Summary**

This chapter addresses the findings of the study which was reported from the data analysis by SEM, this chapter however focused on data analysis comprising of the initial and second phases of data examination. During the initial phase, the cleaning of data was done before conducting the SEM analysis and data were tested for outliers and missing values. It rigorously investigated assumptions of multivariate analysis, examine data for their normality, linearity, multicollinearity, and sample size.

However, summary of the demographic profile of the respondents and descriptive summary of the data as well as hypotheses were duly presented. Also, details' concerning data screening was also reported before actual data analysis and its outcomes. Furthermore, significant outcomes has been established by using SEM technique. However, the direct causal relationships showed that SERVQUAL dimensions and awareness and knowledge on the islamic banking system were found to be have significant positive influences on the intention to subscribe the Islamic banking in Libya as hypothesized.

Furthermore, such findings revealed that religious obligations fully moderates the linkages between SERVQUAL dimensions and the intention to subscribe the Islamic banking in Libya as hypothesized. Also, it established that religious obligations full moderates the linkages between awareness and knowledge on the islamic banking system and the intention to subscribe the Islamic banking in Libya as hypothesized.

Likewise, government support fully moderates the linkages between overall SERVQUAL (CARTER model) and the intention to subscribe the Islamic banking in

Libya as hypothesized. Similarly, it established that government support full moderates the linkages between knowledge and awareness on the islamic banking system and the intention to subscribe the Islamic banking in Libya as hypothesized. In the following chapter the elaborated further discussion and conclusions related to these findings and specified their practical and theoretical implications.

## **CHAPTER SIX**

### **DISCUSSION AND CONCLUSION**

#### **6.1 Introduction**

This chapter discussed and explained the result of related analysis tools (SEM 21.0 and SPSS 21.0 software's) that has been revealed in the previous chapter five and answered the research questions mentioned in chapter one. However, the current chapter provides the analysis method adopted in this research and the findings that resulted from the current research data analysis. Furthermore, this chapter reviewed the results of this study present a flow in accordance with the research design and methodology described in the previous chapter.

However, in this chapter six, it begins with general recapitulation or overview of the research followed by a discussion regarding the findings and the implications and contributions of the study coupled with its limitations and direction for future research. The chapter is structured into eight sections in an attempt to summarize the whole study.

On the other hand, the chapter also provides the explanations of whether the government support and religious obligation moderates the relationship between overall and each and every dimensions SERVQUAL (CARTER model) namely: compliance, assurance, reliability, tangibility, empathy and responsiveness as well as the knowledge and awareness of the Islamic banking system and the intention to subscribe the Islamic banking system in Libyan Islamic banking context. The chapter ends with the conclusion of the complete study.



## **6.2 Recapitulation of the Study**

Research may be defined as a process of systematic investigation leading to increased understanding of a phenomenon or an issue of interest. The systematic process of investigating an existing issue and seeing it in a different way, provide the means for ensuring strong and effective processes of inquiry. This way, research is a form of transformational learning that increases the stock of knowledge and provides people with new concepts or ideas, explanations or interpretations which enable them to understand the world in a different way and which enables them to organize things in a better way.

In order to claim knowledge, the researcher needed to gather data and generate and accumulation of evidence base to explain the phenomena under investigation. In this context, the last chapter (Chapter six) recapitulates the overview of the research project.

However, several steps have been done in this regard throughout SPSS 21.0 and SEM 21.0 procedures, where for the purpose of ensuring valid and reliable results, the measurements used in this research underwent through a rigorous validation process. Prior to the real data collection stage, the measurable items for each construct were reviewed by academicians and practitioners to establish the face and content validity.

Furthermore, in order to ensure an initial valid and reliable measure for the study, a pilot test was conducted involving 100 participants. Therefore and since the results of the pilot test were indicating a satisfactory level of goodness of the measure, the questionnaire was used to collect the data for the study. However the current chapter was organized into eight sections in an attempt to summarize the whole study as below:

- 1- Section 1: Discusses in full detail the main objectives.
- 2- Section 2: Summary of the study conclusions based on the findings of the quantitative results is presented and the significant and insignificant antecedents that influence the intention to subscribe the Islamic banking system (INT) are discussed.
- 3- Section 3: Explains the direct significant factors of the service quality (Compliance, assurance, reliability, tangibility, empathy and responsiveness) as well as the knowledge and awareness of Islamic Banking and the intention to subscribe the Islamic banking system (INT) in the Libyan Islamic banking sector.
- 4- Section 4: Reviews the moderating effect of government support and religious obligation on between the relations between SERVQUAL dimensions (CARTER model), knowledge and awareness of the Islamic Banking and the intention to subscribe the Islamic banking system.
- 5- Section 5: In this section the author attempting to discuss the possible explanation of how SERVQUAL dimensions (CARTER model) as an underpinning theory is the suitable for interpreting the model in this study.
- 6- Section 6, presents the limitations of the research, which may also limit the general philosophy of the research finding obtained in this study.
- 7- Section 7, provides suggestions and further directions for future research.
- 8- Section 8, concludes the research chapters.

### **6.3 Discussion of the Research Objectives**

In line with the background of the study and the statement of the problem which has mentioned in chapter one, the study was mainly designed to address the research questions. Therefore, grounded on the research problem which is formulated into the

research objectives of the this study and based on discussion on the research result which focused mainly on achieving the study objectives, this research aimed to achieve the main research objectives which has been stated in the first chapter. from the findings, that gathered from the views of the bank subscribers/clients who has directly and indirectly involved in the banking sector.

However, it was clear to the researcher that achieving the mentioned objectives hoped to help academic researchers and decision makers to describe, understand and explain the status of the Islamic financial system in the Libyan banking sector. Furthermore, the researcher was aware that the rigor of his inquiry would be demonstrated by how he exposed the collected data to critique and how his conclusions would be supported by the development of usable knowledge.

In order to take a proper action and have usable knowledge, the researcher had to obtain a conceptual framework which helped in measuring the validity and the reliability of the findings. As a matter of fact, adopting a specific conceptual framework and sampling system was meant to make generalizations and this in itself is a useful insight for researchers. Having a conceptual framework was also meant to focus the scope of the research without losing a sight of the emergent issues.

In the following paragraphs, the researcher discuss the significant and insignificant impact of antecedent effects of service quality (CARTER Model), awareness and knowledge and the intention to subscribe the Islamic banking, the moderating effects of government support and religion obligations and how the underpinning theory of SERVQUAL (CARTER model) can be used in explains the intention to subscribe the Islamic banking on Libyan bank customers in Libya.

#### **6.4 Determinations of the Significant and Insignificant Antecedents**

In the procedure's analysis chapter (Chapter five) a general analysis concerning the research hypotheses in this research have revealed and reported. Besides, since the findings from the quantitative analysis have supported several hypotheses, this section extends the argument by presenting the results from the hypothesis testing. However, this section discusses the results regarding the supported and rejected factors to the intention to subscribe the IBS on Libyan bank customers within the Libya Islamic bank whether directly or indirectly.

However, six main hypotheses have been formulated and introduced in this research, where hypothesis three have six sub-hypothesis H3a, H3b,H3c, H3e, H3f, and hypothesis five, have six sub-hypothesis as well H5a, H5b,H5c, H5e, H5f. However, eight significant hypotheses have been reported where others found to be insignificant.

These hypotheses are include the significant relationship between the intention to subscribe the IBS (INT) and overall SERVQUAL dimensions (H1); INT and compliance to IBS (CO) (H1a); INT and awareness and knowledge on IBS (KU) (H2); interaction of government support (GS) on between the INT and overall SERVQUAL dimension's (H3); interaction of GS on between CO (H3a); interaction of GS on between KU and INT (H4); interaction of religious obligation (RO) on between overall SERVQUAL dimension's and INT (H5); interaction of RO on between CO and INT (H5a) and interaction of RO on between KU and INT (H6). Where, RO and GS found to be significant (H7new) as a new hypothesis suggested by paths of SEM from generated model hypothesis.

On the contrary, out of eighteen hypotheses ten hypotheses failed to support the significant relationship between INT: (H 3b, H 3c, H 3d, H 3f, H 3e, H 5b, H 5c, H 5d, H 5e, and H 5f). Furthermore, the results revealed that government support does not moderate the relationship on between the INT and (assurance H3b, reliability H3c, tangibility H3d, empathy H3f, and responsiveness H3e) also the religious obligation does not moderate the relationship on between INT and (assurance H5b, reliability H5c, tangibility H5d, empathy H5f, and responsiveness H5e) in IBS in Libyan Islamic banking context.

## **6.5 Discussion**

To discuss the findings of the study, the following subsections reported these findings, which are following the same order of the objectives of this research:

### **6.5.1 The Relationship of SERVQUAL (CARTER) Model and Intention to Subscribe the Islamic Banking System**

In order to achieve the first objective of the research, which to determine the relationship effect of SERVQUAL (CARTER) Model towards INT within the Libyan banking sector context. Therefore, several statistical techniques and steps such as a correlation, regression and descriptive statistics were conducted and reported in chapter five.

However, the regression paths between overall SERVQUAL dimensions and for each and every dimension as has been mentioned in chapter one and the INT were examined. On the other hand, the research in attempting to give an accurate and logical explanation o the proposed objectives, the following sub-sections discusses in details the study's findings:

## **6.5.2 The Relationship of Overall Service Quality (CARTER) Model and Intention to Subscribe the Islamic Banking System**

As stated in earlier chapter (Chapter three) the present research has adopted the service quality (CARTER) Model that has been developed by Owen, (2001).

The current study predicted that, the SERVQUAL (CARTER) Model dimensions, namely: compliance, assurance, reliability, tangibility, empathy and responsiveness will have an effect in determining the relationship of SERVQUAL (CARTER) Model towards the intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context.

Therefore, since the current research make use of “SEM software”, seven direct regression paths/hypotheses have been drawn in SEM 21.0 software in order to analyse these assumptions. However, out of these seven paths/hypotheses, only two were found to be supported (H1: overall SERVQUAL dimensions ( $\beta= 0.588$ ,  $P < .001^{***}$ ) and H1a compliance ( $\beta= 0.403$ ,  $p\text{-value}=P < 0.002^{***}$ ) were found to have a positive significant relationship with the intention to subscribe the Islamic banking system (INT) at 0.001 level (two-tailed).

Whereas, five hypothesis paths (H1b; assurance, H1c; reliability, H1d; tangibility, H1e; empathy and H1f; responsiveness towards INT have revealed from the findings of this study to be insignificantly influence the behavioural intention to subscribe the Islamic banking as depicted in chapter five table 5.14, therefore, H1b, H1c, H1d, H1e and H1f are not supported.

However, empirical evidence revealed from this research reported that, overall SERVQUAL (CARTER) Model has a significant positive direct relationship with the

INT, which supports the first hypothesis H1. Accordingly, there are a number of past empirical evidence that have reported similar results and indicated that overall SERVQUAL (CARTER) Model is a good predictor and plays a significant role in predicting the behavioral intention which is aligned with prior findings such as Liu, *et al.*, (2013); Boulding *et al.*, (1993); Valarie *et al.*, (1996); Abdelghani Echchabi *et al.*, (2012); Gottlieb *et al.*,(2011); Yavas *et al.*, (2004).

Based on the findings regarding H1, the findings indicated that Libyan bank's client/customers have a high intention when the overall SERVQUAL (CARTER) is being implemented in the banks. Therefore, all the above reasons might make the Libyan bank customer's intention to subscribe the Islamic banking system to be quite high since the Islamic banking sectors emphasize on the implementation of overall SERVQUAL (CARTER) all together.

In other words, it concludes that the more positive by the emphasizing on the overall SERVQUAL (CARTER) the more likely that customer attraction and intention to subscribe the Islamic banking system will be by the Libyan bank's client/customers.

#### **6.5.2.1 The Relationship of Compliance to Islamic Banking System and Intention to Subscribe the Islamic Banking System**

Since service quality (CARTER) model have been adopted in this research, the researcher has conducted test the direct relationship of the overall SERVQUAL (CARTER) model with the intention to subscribe the Islamic banking system (INT); where in this section deal with each and every of service quality (CARTER) model components separately. Therefore, the relationship of the compliance to the Islamic

banking system and the intention to subscribe the Islamic banking system H1a reported.

According to Othman *et al.*, (2001), claimed that, as it is the core of (CARTER) model service quality viewpoint, the ultimate aim is to accomplish with Islamic Shariah and function under the main beliefs of the Islamic finance system as general. However, as it showed in Table 5.25 in chapter five, the result revealed that, compliance to the IBS found to have significant influence on the relationship with the Libyans' behavioral intention to subscribe the Islamic banking system H1a, ( $\beta= 0.403$ ,  $p\text{-value}=P < 0.002^{***}$ ) at the significance level of 0.005.

However, despite the fact that there are little empirical evidence regards the compliance and its relationship with the behavioral intention, the current study findings founded to be consistent with the finding of the previous studies such as Lee *et al.*, (2011); Abdulqawi Othman *et al.*, (2001).

Nevertheless, the revealed results reflect that, Libyan Islamic banks' customers highly values Shariah compliance in their banks as revealed by the mean score of the measurement items result i.g. 5.796 out of 7. Interestingly, the findings reveal that Libyan Islamic banks' customers compliance's are not the only their intention as well as satisfaction yardstick for IBS, besides the customers expect the banks to be more convenient, technologically advanced and provide safety to their money, however, this fact found to be consistent with Lee *et al.*, (2011). Furthermore, this result also indicates the importance of compliance to the IBS in enhancing the overall service quality with INT.



### **6.5.2.2 The Relationship of Assurance and the Intention to Subscribe the Islamic Banking System**

The second (CARTER) model dimension is assurance. The results regarding to this hypothesis H1b have been reported and demonstrated in chapter five Table 5.25, however, assurance failed to have a direct positive relationship ( $\beta= 0.020$ , C.R.= 0.157,  $P$ -value=0.875) on the intention to subscribe the Islamic banking system relationship, which aligned with prior findings such as Jager and Plooy, (2007).

The assurance of services provided classified as a softer dimension representative that deals with people's interaction (Culiberg, 2010). The assurance of services provided represents the quality of social interactions among the customer and the service provider. It is also, refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence as has been commented by Parasuraman, Zeithaml, & Berry, (1985).

However, Downwindz, (2010), also claimed that, Assurance of the service quality refers to the company's employees where employees should be skilled workers and able to gain the trust and confidence of the customers. Therefore, if the customers were not happy and comforted with the staffs in terms of confidence, trust and skills for instance, there will be rather large chance that the customers will not return to do further business with the bank.

Nevertheless, this research finding might be explained on the view of the contingency theory, service quality theory and (CARTER) model. However, for the most of the Libyan banks; there is unclear vision that directs all the individual and group efforts towards one objective. For that reason, the majority of the banks even has been

appreciative of the importance of customers for the business success have failed to create and develop civilized and environmentally friendly, provision of financial advising, interior comfort, easy access to their account information, as well as knowledgeable and experienced management team among the employees and to the customers as been claimed and suggested by (Saghier & Nathan, 2013).

Moreover, based on the study results, the statistical descriptive results indicated the a very low of the mean score of the measurement items i.g. 1.529 out of 7; it appeared that, Libyan bank customers/clients believe that all the assurance issues have not been given the deserved attention in the banks as revealed in the findings referring to item 7 of assurance measurements. Another reason might be behind the ineffective of assurance issue implementation in the Libyan bank's environment is the poor quality of the qualification and within-work training programs, where there is a lack of personnel's ability to exhibit communication skills and to deal with customers' desires and needs in a trustworthy manner.

The Libyan bank's client/customers are looking for employees to be competent, helpful to understand their needs, to respect them as individuals and to provide clear and understandable information. As a matter of fact, banks staff personal contact still needs to be addressed.

### **6.5.2.3 The Relationship of Reliability and the Intention to Subscribe the Islamic Banking System**

The third (CARTER) model dimension is reliability. The results regarding the relationship of the reliability as one of service quality dimensions' and the intention to

subscribe the Islamic banking system H1c revealed as shown in chapter five Table 5.25, reported and discussed in this section.

However, reliability of the service provided is one of the vital dimensions of service quality, it refers to the bank performance and accomplishing their promised service quality and accuracy within the given set requirements between bank and the customer, the reliability is as an important as first hand impression, which is because every customer want to know if their supplier is reliable and fulfill the set requirements with satisfaction.

Furthermore, reliability is one of the most important factor in conventional service, it is consists of accurate order fulfillment, accurate record, accurate quote, accurate in billing, accurate calculation of commissions, keep services promise. Besides, the reliability of service is significant factor in banking services as claimed by Parasuraman & Zeithaml, (1988); Yang *et al.*, (2004); Saghier and Nathan, (2013).

At any level of financial transactions levels, reliability of any service providers by banks or organization comes at the priority of their customers. The Islamic banks will consider to be reliable in the case of compliance the basic principle of transparency, justice and free from interest, otherwise, it will not be trusted by its customers, and the will leave the banks trying to find another alternatives.

However, according to service quality theory, since reliability depends on handling customers' service problems, performing services right the first time, provide services at the promised time, the employee ability to win customers trust, confidence and maintaining error-free record; thus, customer should have the positive feelings towards the reliability of services provided.

In contrary to the current study expectations, this study findings indicated an interesting finding, where reliability of service bank provided with ( $\beta=-0.880$ , C.R.= -0.570,  $P$ -value=0.568) was not found to have a significant relationship with customer intention which appeared to be aligned with (Akhtar & Zaheer, 2014). Therefore, reliability of service quality failed to have a direct positive relationship on the INT relationship which rejected the (H1c).

On the other hand, these findings could be plausibly explained in the view that, since the reliability mentioned criterias (such as accurate order fulfillment, accurate quote, accurate in billing, keep services promise) seems to be not implemented properly in the Libyan banks. Where the mean score of the reliability items from the current research showed that is very low (1.5984) out of the range of scale between 1 to 7; this however, reflecting a distrust and as result the reliability of service provided by the bank failed to have a direct relationship with the intention to subscribe the Islamic banking system (INT).

Furthermore, the mean score of the reliability items showed that, it appeared that Libyan bank customers/clients are found to be not satisfied with the reliability of service which is provided by their banks, this result, however, found to be theoretically and empirically consistence with (Akhtar & Zaheer, 2014; Downwindz, 2010; Parasuraman & Zeithaml, 1988).

#### **6.5.2.4 The Relationship of Tangibility and the Intention to Subscribe the Islamic Banking System**

Tangibility of service provided refers to the appearance of physical facilities, equipment, personnel, and written materials. Also, it referred to the modern looking

equipment, physical facility, the well dressed employees and the visually appealing materials, which does not go against the definition of Parasuraman *et al.*, (1985); Ananth *et al.*, (2011). It is the fourth (CARTER) service quality model dimension. However, the results regards to the hypothesis H1d revealed as shown in chapter five Table 5.25 and reported in this section.

The results of this study revealed that, tangible of services provided by Libyan banking sector regarding to the Islamic banking sector was not found to have a direct significant positive relationship with the behavioural intention of Libyans' to subscribe the Islamic banking system ( $\beta = -0.049$ , C.R. =  $-0.156$ , p-value =  $0.876$ ), which as result reject the hypothesis H1d.

However, the tangible of services is exists to exhibit a positive effect on the customer behaviour (Kincaid, Baloglu, Mao, & Busser, 2010). Therefore, the lack of the tangibility services equipments which should be provided in banking sector that includes for instance (the ambient conditions such as noise, extent of the physical layout of equipment for customers to inter act with bank staff, visually appealing signs, symbols, advertisement boards, pamphlets and so on) in the bank as well as professional appearance, visually appealing materials and facilities associated with the service etc; these factors together could effect on the intentions of the customer or dealer which of course will reflect on the bank performance and its image.

However, although of the previous result by Malhotra *et al.*, (2005) and Espinoza, (1999), which claims that tangibility of service provided in the developing as well as developed countries are not expected to consider important; it is a fact that, in today world market and in order to gain the very unique competitive edge, banks or

organizations have to put extra emphasis on the tangible expectations of customers. The findings of this result appeared to be in line with (Kincaid *et al.*, 2010).

Based on the results of this study, all of these tangible services, seems to be were not given enough consideration somehow in the Libyan banking sector, where the mean score of the items showed a low score i.e. 2.088 in the range of scale between 1 to 7, which means that, the Libyan bank customers do not believe that there is not enough tangible services provided by the bank. Libyan bank's client/customers, although of the importance of tangibility of services, they do not see enough tangible visually appealing signs, symbols, advertisement boards, pamphlets and other arte facts in the bank and professional appearance, visually appealing materials and facilities associated with the service, which can attract them to subscribe the Islamic banking system which is found to be inconsistent with (Glaveli *et al.*, 2006).

However, based on the current study results, tangibility of services has failed to have a direct significant positive relationship with the behavioral intentions of customer to subscribe the islamic banking. Nevertheless, by the exists of the enough tangible services such as (the tangible visually appealing signs, symbols, advertisement boards and so on), the customer's behavioural intention to subscribe the Islamic banking system would be enhanced and the customers' attention could be attracted to subscribe IBS.

#### **6.5.2.5 The Relationship of Empathy and the Intention to Subscribe the Islamic Banking System**

According to Culiberg, (2010), the empathy of services provided can be classified as a softer dimension which deals with people's interaction. It is an individualized

attention and special caring that bank provides to its customers. However, in attempting to achieve the related objective to the fifth (CARTER) model dimensions empathy of services provided by the bank, several steps have been taken in chapter five. Consequently, the statistical results regarding to this hypothesis H1e has been revealed as demonstrated in chapter five Table 5.24.

The empathy of service quality provided found to have insignificant direct positive relationship on the INT ( $\beta = -0.128$ , C.R. =  $-0.235$ ,  $P\text{-value} = 0.814$ ). Therefore, the results of this study did not supports the hypothesis (H1e) which found to be aligned with prior results reported by Arasli, Katircioglu, and Mehtap-Smadi, (2005).

In a point of fact, the empathy dimension in the service quality theory refers to how organization or bank cares and gives individualized attention to their customers in order to make the customers feeling extra valued and special it is a combining of the second, third and fourth dimension to a higher level, even though the reality cannot be compared as individuals.

However, in the context of empathy of service quality, the empathy of services provided might not be applicable in financial institutions such as banks where customers look for high quality and accurate service. Nevertheless, it may be better for the organization to apply the empathy regarding to the services provided in order to gain or ensure their customer loyalty (Harr, 2008).

However, the results might be explained in the view of that the Libyan bank's customers do not feel they received an individualized and personal quality attention, where the mean score of the empathy's items from the current research showed a low mean score of (2.724) out of the range of scale between 1 to 7, therefore, they mostly

will not return to the banks and will close their subscription or business which is aligned with Parasuraman *et al.*, (1985).

However, according to Parasuraman *et al.*, (1985) they depicted the empathy as the caring and individual attention the firm provides its customers. It involves giving customers individual attention and employees who understand the needs of their customers and convenience business hours. However, based on the result of this study, it indicated that Libyan bank's client/customers although of the importance of empathy, they do not see that they received an individual attention, convenient operating hours, giving personal attention, best interest in heart and understand customers specific needs, which of course leads to the insignificant influence in terms of the service quality empathy dimension and their intentions to be part of the Islamic banking system.

#### **6.5.2.6 The Relationship of Responsiveness and the Intention to Subscribe the Islamic Banking System**

The last (CARTER) model dimension is responsiveness. The results regarding to this hypothesis (H1f) revealed as demonstrated in chapter five Table 5.25. In relation to that, "responsiveness service quality dimension discusses the willingness of the company to help its customers in providing them with a good quality and fast service.

It is also a very important dimension, since it involves the understanding of customers needs as well as the convenience operating hours and the safety of their money transactions, therefore every customer will feel more valued if they get the best possible quality in the service as consistent with the definition stated by (Kumar, Kee, & Manshor, 2009; Parasuraman *et al.*, 1985).



In contrary to the current study hypothesis H1f and expectations, the results showed that, responsiveness of services provided by the bank (RE) was not found to have a significant direct relationship on the intention to subscribe the Islamic banking (INT) in Libyan banking sector with ( $\beta= 0.061$ , C.R. = 0.258, p-value=0.796) at the 0.05 level of significance. Therefore, the results regarding to this hypothesis H1f is not supported, which found to be aligned with prior results reported by Downwindz, (2010); Kheng, Mahamad, Ramayah, and Mosahab, (2010); Akhtar & Zaheer, (2014), where this findings found to be inconsistent with Misbach, and Hadiwidjojo, (2013).

However, since the responsiveness means the willingness or readiness of employees to provide service where it involves timeliness of services as well as understanding needs of the customers, convenient operating hours, individual attention given by the personnel, attention to problems and customers’ safety in their transaction.

The current research findings revealed that, Libyan bank’s client/customers although of the importance of this dimension, they do not see that Libyan bank gives high attention to timeliness of services as well as understanding needs of the customers, operating hours, individual attention given by the personnel, attention to problems and customers “safety in their transaction”, as indicated in the mean score of the responsiveness items of the current research where it showed a low score of (2.041) out of the range of scale between 1 to 7.

Therefore, all of these reasons have led to insignificant direct relationship in terms of the responsiveness of services provided and intention to subscribe the Islamic banking system. However, these findings could be plausibly explained by the fact that the employees in Libyan banks are receiving very less and low quality relevant training.

## **6.6 The relationship of Knowledge and Awareness on the Islamic Banking System and Intention to Subscribe the Islamic Banking System**

In attempting to achieve the second objective of the research, which is to determine the effects of knowledge and awareness of the Islamic banking system (KU) on intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context. Several statistical techniques has been involved and conducted in chapter five as illustrated in Table 5.25. The regression paths between KU and the INT were examined. However, the result of this research revealed that, KU has a significant positive relationship with the INT which is support the second hypothesis H2.

However, this finding suggests that high level of KU will lead in return to high level or desire to subscribe the Islamic banking system. The knowledge and awareness of the Islamic banking system referring to reality or condition of knowing this system with familiarity gained by familiarity or learning.

Customers may purchasing the halal commodity or product with little confidence or attention just to be compliant with their faith in many cases Omar (2012), those who deals with Islamic financial products are not properly informed about how these Islamic products are function (Rammal, & Zurbruegg, 2007). Moreover, Rammal, *et al.*, (2007) reported that, it was common to find respondents who were keen to purchase Islamic banking products, but only if credit facilities were available.

In relation with Rammal, *et al.*, (2007), findings customers of both the banks are satisfied with their facilities offered by banks but the customer of both banks are not aware about the different financial services provided by Islamic banks which have

been confirmed in non Muslims countries (Gerrard & Cunningham , 1997; Raza, 2014).

In contrary to the mentioned results, Naser *et al.*, (1999) reported in their study that, although of the little bit knowledge that customers have about some of IBS products e.g. Mudarabah and Murabaha, most of them do not use these products.

Howvere, in the Muslim countries or countries that have a majority of Muslims' populations, the knowledge and awareness found to be very important variable which attributes to subscribe the Islamic banking financial services (banking) Metawa and Almoosawi, (1998). However, the study revealed a positive direct relationship between KU and behavioral intention to subscribe the IBS which supports the second hypothesis of the study.

The findings of related to this hypothesis could be explained in the view of, since Libya is a Muslim country the knowledge and awareness about IBS found to be very important variable in contributing to raise the behavioral intention of customers to subscribe the IBS, the findings of this study found to be aligned with Abdullah *et al.*, (2012); Almoosawi, (1998).

Nevertheless, interestingly the empirical findings revealed in this study indicated that, although of poor implementation and the inattentiveness of the importance most of SERVQUAL dimensions; the Libyan bank's client/customers seems to have enough knowledge and awareness on the Islamic banking system which as a consequence leads to a high intention to subscribe the IBS.

## **6.7 The Interaction Terms of Government Support and Its Effect on Relationship between Overall Service Quality (CARTER Model) and Intention to Subscribe the Islamic Banking System**

Government support (GS) is an important facilitator in the functioning of any country's economy. Government support is a facilitation of the condition which translates into how available the resources which are needed for the behavior are to be carried out. However, by offering government's support for certain industry is part of the government's overall policy, which may seek to correct the market and regulatory inefficiencies and be part of broader objectives. Financial institutions and banks can get government supervision so that they can serve the needs of consumers in a better way this was found aligned with Kaynak *et al.*, (2000).

The government support as the market and regulatory impediments which are often invoked to justify public intervention in the provision of any new market or industry, which need to be identifying and address by the government support of its impediments to help the industry in order to complement their risk management activities with potentially cost-effective financial tools such as insurance.

However, in the context with Libyan government, without the cooperation between the government and the banking sector, low development of Shariah financial system industry will arise which will render them unable to tackle the challenges and the issues that are hindering local brand development.

However, in attempting to achieve the third objective of the research, which is to investigate whether GS moderate the relationship between overall service quality (CARTER model) and INT within the Libyan banking sector context. Several steps

have been conducted in chapter five as summarized and illustrated in Table 5.25. However, the regression paths between service quality (CARTER model) dimensions' and the intention to subscribe the IBS were examined and found to be positively significant.

Nevertheless, the related findings to the GS interaction showed that Libyan government support found to have moderating effect on the relationship between overall service quality (CARTER model) dimensions' and the INT within the Libyan banking sector context. The three-way interaction in chapter five showed that the higher overall service quality bank provided to customers, the more intention to subscribe the Islamic banking system. However, this can be explained in the view of the interaction of the Libyan government do exist by offering in somehow attention to the overall service quality dimensions' to these the banks.

Nevertheless, there are a number of past empirical evidence that have reported similar results and indicated that overall SERVQUAL (CARTER) Model is a good predictor and plays a very significant role in predicting the behavioral intention which is aligned with prior findings such as Abdullah, Sidek, and Adnan, (2012); Jaffar and Musa, (2013); Wirtz and Mattila, (2003); Yang and Farn, (2009); Kaynak *et al.*, (2000).

However, since the service quality (CARTER model) dimensions' have six dimensions namely: "compliance, assurance, reliability, tangibility, empathy and responsiveness" and since the researcher tend to treat and test every and each of SERVQUAL separately, the direct relationship of the assurance, reliability, tangibility, empathy and responsiveness components of service quality (CARTER model) with INT found to have no relationship effect, therefore and consequently, only compliance

to IBS is involved in testing the moderation effect of GS on between (CARTER model) dimensions' compliance and INT.

However, compliance to IBS among the service quality (CARTER model) factors, was found to be powerful predictor and have direct significant effect on the INT, which effect on the overall significant of the service quality (CARTER model) factors to INT. In relation to that, the three-way interaction in chapter (Five) Figure 5.21 revealed that the due to higher compliance to IBS of the bank customers, there are more attention to subscribe the Islamic banking system.

However, the result revealed that GS had no significant moderating effect on the relationship on assurance, reliability, tangibility, empathy and responsiveness and the INT relationship which rejects the H 3b, H 3c, H 3d, H 3f, and H 3e respectively.

Therefore, these results can be explained since the Libyan bank's client/customers are not satisfied with the service quality namely: reliability, tangibility, empathy and responsiveness at the first place, hence they believe that government did not support these important criteria's by give and provide quality training and emphasizing on the implementation of the full terms and conditions of the service quality (CARTER dimensions).

As a result, the lack of government support in supporting reliability, tangibility, empathy and responsiveness related to the Islamic banking system within the Libyan banking sector context lead Libyans to not open and subscribe or withdraw their money from these banks. Whereas, the compliance to IBS as one of the Muslims beliefs which they have to fulfill either by the interaction of the government or not, the

Libyan government found to have Partial moderating influence by enhancing and strength the relationship on between compliance to IBS and INT.

### **6.8 The Interaction Terms of Government Support and Its Effect on Relationship between Knowledge and Awareness on the Islamic Banking System and Intention to Subscribe the Islamic Banking System**

In attempting to achieve the fourth objective of the research, which is to examine whether government support (GS) moderates the relationship between knowledge and awareness on the Islamic banking system (KU) and intention to subscribe the islamic banking system (INT) within the Libyan banking sector context. Therefore, several statistical techniques and steps have been involved and conducted in chapter five as illustrated in Table 5.25. However, the regression paths between KU and the INT were examined.

However, the related findings to the GS interaction showed that GS found to have moderating effect on the relationship between KU and the INT within the Libyan banking sector context. The three-way interaction in chapter five revealed that the higher KU of the bank customers, the more INT found to be consistent with Wirtz and Mattila, (2003).

Therefore, these results might be understand in the view that, Libyan bank customers/clients are familiar and have enough education regarding to IBS, however, as their knowledge and awareness on IBS, perception or knowledge of a particular or general situation or reality as their subscribe the Islamic banking system is getting

higher since the Libyan government support involved, where they emphasizing on the importance of Libyan government support to improve the KU in many aspects.

### **6.9 The Interaction Terms of Religious Obligations and Its Effect on Relationship between Overall Service Quality (CARTER model) and Intention to Subscribe the Islamic Banking System**

In attempting to achieve the fifth objective of this research, that to investigate whether religious obligations (RO) moderate the relationship between overall service quality (CARTER model) and INT within the Libyan banking sector context. For this reason, several steps and statistical techniques has been involved and conducted in chapter five as illustrated in Table 5.25. The regression paths between SERVQUAL (CARTER model) dimensions' and the intention to subscribe the Islamic banking system (INT) were examined.

However, the related findings to the RO interaction showed that, RO found to have moderating effect on between overall SERVQUAL (CARTER model) dimensions' and the INT relationship within the Libyan banking sector context. However, since the direct relationship of the other components of SERVQUAL (CARTER model) with INT found to be insignificant, only compliance to IBS as it has been reported to have significant relationship to the INT; therefore compliance involved in this process.

More specifically, out of service quality (CARTER model) six diminutions namely: compliance, assurance, reliability, tangibility, empathy and responsiveness, the result revealed that; only compliance to IBS among the service quality (CARTER model) factors was found to be powerful predictor and have direct significant effect on the



INT, which however effected the overall significant of the SERVQUAL (CARTER model) factors.

However, RO interaction influence on between compliance and the INT relationship were examined. However, the related result revealed that, compliance to IBS among the service quality (CARTER model) factors was found to be significantly moderated by the RO interaction with the INT.

#### **6.10 The Interaction Terms of Religious Obligations and Its Effect on Relationship between Knowledge and Awareness of the Islamic Banking System and Intention to Subscribe the Islamic Banking System**

In attempting to achieve the last objective (the sixth objective) of this research concerned with examining whether religious obligations (OR) moderates the relationship of between knowledge and awareness of the Islamic banking system (KU) and the intention to subscribe the Islamic banking system (INT) within the Libyan banking sector context. Therefore, several statistical techniques and steps have been involved and conducted in chapter five as illustrated in Table 5.25. However, the regression paths between KU and the INT were examined.

However, the result revealed that RO found to be significantly moderated the relationship between KU and the INT within the Libyan banking sector context. This finding is found to be consistent with the finding of the previous studies such as Haron, Ahmad, and Planisek, (1994); Amin *et al.*, (2011).

However, corresponding to that, the three-way interaction revealed that RO is more beneficial to the INT with high RO than to low RO generally, RO enhances the positive

relationship on between KU and intention, hence, it can conclude that Partial moderation is exist between the KU and INT once OR comes into the model therefore H6 is not supported.

However, since the RO expressing the religion roles in influencing the choice of the individual's or activities this result might be explained as, Libyan as Muslims society, they are led by their beliefs and their Islamic obligation towards Islamic banking. Most of the Libyans bank client and customers thinks that by dealing and subscribing in such banks they will be protected from commit the sin such as (Riba), in fact religious motivation factors seems to be powerful factors that leads Libyan bank customers/clients dealing with Islamic finance system.

#### **6.11 Verify the Appropriateness of the Service Quality (CARTER Model) Underpinning Theory for Libyan Intention to Subscribe the Islamic Banking System, By Using Nested Model Presence in SEM.**

This section review the result of verifies the appropriateness and the effect of SERVQUAL (CARTER) Model in predicting the intention to subscribe the Islamic banking system in Libya. In actual fact, majority of theories relating to behavior intention have been created by studies in developing countries. However, for the current study yet there was no such a piece of research been done in the literature regarding to Libyan intention to subscribe the Islamic banking system in particular and in Islamic countries such as Arab countries.

Based, the current research findings have successfully taken into consideration the issues of generalization. This study aimed to create and validate a research model that

demonstrated the intention to subscribe the Islamic banking system in Libyan banking sector by means of the service quality theory (CARTER model).

However, the present research made use of a nested model presence in SEM and replacing factors of the service quality theory (CARTER model) namely: “compliance, assurance, reliability, tangibility, empathy and responsiveness” and the moderating effect of government support and religion obligations on between the mentioned of service quality theory (CARTER model) dimensions and knowledge, awareness on IBS and the intention to subscribe the Islamic banking system in Libyan banking sector. The current research revealed that the (CARTER model) is good model in explaining the intention to subscribe the Islamic banking system in Libyan banking sector well.

According to Table 5.13 (refer to chapter five) the results showed competing models (Alternative Model) of CARTER Model in an adequate mode fit with GOFI, as a ratio value is less than 2 (1.101), indicating sufficient data fit. Moreover, CFI= 0.977, GFI= 0.895, AGFI= 0.881 and NFI= 0.879 fit the data well, since the values that are in close proximity to 1 show better fit. In addition, the parsimonious fit index (RMSEA) is considered to be as the better measurement for the model fit as the results showed that RMSEA = 0.030, which was inside the recommended range of 0.05 and 0.08 and less than 0.10 (Hair *et al.*, 1998; 2006).

Where, P-value indicator, which indicates the ability or inability for model generalization was found in the generated model to be equal 0.009, which means that, the results of this study can be generalized to the all probable population of this study (Hair *et al.*, 2006).

However, the results indicate that there are six main hypothesis has been formulated and introduced in this research which are: service quality theory (CARTER model) - intention H1, knowledge, awareness on IBS - intention H2, service quality theory (CARTER model) - government support - intention H3, service quality theory (CARTER model) - religion obligations - intention H4, knowledge, awareness on IBS - government support - intention H6, intention H1, knowledge, awareness on IBS - religion obligations - intention H6, where hypothesis three and five have six sub-hypothesis compliance - intention H1a, assurance - intention H1b, tangibility - intention H1c, empathy - intention H1d, responsiveness - intention H5e.

However, out of these hypotheses, eight significant hypotheses have been reported where other found to be insignificant. These hypotheses are include the significant relationship between INT and overall SERVQUAL dimensions (H1); INT and compliance to the Islamic banking system (H1a) INTand KU (H2); interaction of GS on between the INT and overall SERVQUAL dimension's (H3); interaction of GS on between compliance to the Islamic banking (H3a); interaction of GS on between KU and the INT (H4); interaction of RO on between overall SERVQUAL dimension's and INT (H5); interaction of RO on between compliance to the Islamic banking system and INT (H5a) and interaction of RO on between KU and the INT (H6). Where, RO and GS found to be significant (H7new) as a new hypothesis suggested by paths of SEM from generated model hypothesis.

On the contrary, out of eighteen hypotheses ten hypotheses failed to support the significant relationship between the intentions to subscribe the Islamic banking system: (H 3b, H 3c, H 3d, H 3f, H 3e, H 5b, H 5c, H 5d, H 5e, and H 5f) as illustrated

in chapter five Table 5.28 and Table 5.29. Furthermore, the results revealed that government support does not moderate the relationship on between the intention to subscribe to the Islamic banking system and (assurance H3b, reliability H3c, tangibility H3d, empathy H3f, and responsiveness H3e) also the religious obligation does not moderate the relationship on between the intention to subscribe to the Islamic banking system and (assurance H5b, reliability H5c, tangibility H5d, empathy H5f, and responsiveness H5e) in the Islamic banking system in Libyan Islamic banking context.

Therefore, these results assert that the theory of SERVQUAL (CARTER) Model can be used in explain and to be utilized on the analysis of the intention to subscribe the Islamic Banking System (INT) within the Libyan banking sector context.

In addition, the squared multiple correlations ( $R^2$ ) for CARTER Model explain the variance in the SERVQUAL with 0.639% and intention to subscribes the IBS with 0.356%. It exhibits a good fit indicating its robustness in intention to subscribe the IBS. Thus, by modifying and validating a research model like SERVQUAL CARTER model, it is possible to demonstrate the intention to subscribe the IBS in Libyan customer.

## **6.12 Research Contributions**

This section discusses the contributions of this study. As stated in earlier chapter one, the significance of the study comes from its originality and major purpose, where the study aims to increase the understanding of the importance of the behavioral intention to subscribe the Islamic banking system and its relationships in banking sector within Libya context. On the other hand, this study is first of its kind piece of research at this

level of academic research known yet in Libyan aspect regarding to the Islamic banking system and banking sector general in both sides theoretical and practical level.

However, this research has shed lights on the nature and structure as well as the principles of IBS which is hoped to help in explaining the target sector IBS in Libya.

The study has starting with the investigation the factors affecting and facing practice and the behavioral intention to subscribe to Islamic banking system in Libya. The findings of this study might be vital for the Libyan economic and financial sector, banking industry sector, investors, government, the general public and the academia. However, specific contributions to each sector are discussed below:

#### **6.12.1 Academic Contribution**

As discussed in the literature review chapter, Islamic banking system is an important industry and emerging system, where several studies have addressing the lack of studies and research on the Islamic countries in particular North Africa and more specifically in Libya. This research hoped to increase the number of academic Islamic financial system in general and in Libya in particular.

The current research has adopted methodologically the quantitative approach in order to enhance the ability to generalize its results (Angell & Townsend, 2011; Clark et al., 2007; Creswell, 2008; Fieri, 2011; Johnson & Onwuegbuzie, 2009; Zawawi, 2001).

In addition, this study findings might contribute to understanding the extent of the knowledge and the awareness of the Libyan towards IBS where no study have conducted in this regard before. As a matter of fact, this research is the first study of its kind conducted in the north Africa (Arab countries) dedicated to study the

behavioral intention to subscribe the Islamic banking system concerning Libya by using the CARTER model.

Although the fact that, behavior intention is in turn preceded by two major determinants which are attitude and subjective norm (Ajzen, Lcek & Fishbein's, 1992), the results of this study found that services quality (CARTER) model as well as the knowledge and the awareness of IBS have a positive relationship with the behavioral intention which added a new theoretical contribution.

Furthermore, the findings may increase of the number of empirical findings on Islamic banking system “products and services” to suggest that service quality (CARTER model) would enrich the conceptualization of behavioral intention to subscribe Islamic banking system and its relationships in the context of Libya.

The findings revealed the impact the antecedent of customer behavioural intentions' to subscribe the IBS who would deal with this kind of products and increase the empirical literature in accounting, banking and related disciplines. The direction of the relationship in this study verifies the theoretical inconsistency and consistency that exists in the previous literature.

However, this empirical study is the first of its kind conducted in Libya, as none of the researchers have conducted a research in this direction. Therefore, this research surely increases the number of Libyan empirical researches in the Shariah Compliant Financial transactions system and banking products industry.

This study has carried out robust analysis on the reliability and validating of the instruments in addition to testing the hypotheses and the model. In actual fact, previous

studies mainly depended on traditional instruments like factor analysis and Cronbach's alpha coefficient for both reliability and validation. However, although of the effectiveness of these instruments, the researcher have applied and used recommended accurate software's (SEM 21.0) and techniques (e.g. Composite reliability) for purposes of efficiency and validating the measurement model and testing the proposed hypotheses and as such, it can be viewed as one of the few studies that made use of such a method for the goodness of fit of the measurement model in hypotheses testing in regarding to Islamic banking system studies Libyan context.

In the other hand, the researcher applied Structural Equation Modeling (SEM) which in order to make a major contribution to the existing body of knowledge and literature, and can be considered as a methodological contribution, since SEM promotes a better quality of research , especially in modeling multivariate relations.

#### **6.12.2 Practical Contribution**

This study has provided an empirical evidence regarding service quality theory (CARTER) model and knowledge and awareness' on Islamic banking system have a positive response to the behavioral intentions' to subscribe the Islamic banking system in Libya.

The result also revealed that government support and religion obligation have a moderation roles on between the service quality theory CARTER model and knowledge and awareness' on Islamic banking system and the behavior intentions' to subscribe the Islamic banking system in Libya. In actual fact, the study revealed a clear understanding with the existing and interactions of religion obligations on the customer intentions' to subscribe the Islamic banking system which is increased the



significant relationship, in contrary, due to the absence role of the government support to the Islamic banking system, the interaction of government support on between CARTER model, knowledge and awareness on IBS and intentions' to subscribe the Islamic banking system is barely affecting the on the customer intentions' to subscribe the Islamic banking system as appeared in the related results. On the other hand, other empirical researchers can benefits from these empirical results.

However, the study findings provide a clear insight on the SERVQUAL (CARTER model), knowledge and awareness on the IBS as well as the importance of the emphasis on religious obligation and government support roles in improving the customers' intentions' to subscribe the Islamic banking system as a whole.

Moreover, the contributions of the findings of this study come from the importance of all the variables as antecedents (CARTER model), knowledge and awareness on the IBS as well as the importance of the emphasis on religious obligation and government support on the customers' intentions' to subscribe the Islamic banking system in Libyan banking system. Therefore, the information's provided from this study could be beneficial for the marketers, investors, companies and Libyan government in creating relevant strategies and policies regarding to the Islamic banking industry.

### **6.13 Research Limitations**

Despite the reality that, the present study has provided worthy insights and several contributions i.e. academically and in practical field, these contributions are the interpretation of the study findings obtained from the research. However, the conclusions drawn accordingly should be considered in the light of the study's limitations.

Furthermore, as it is commonly the case in conducting research work and regarding to the current research there are some points need to mention. Nevertheless, although the study examined the direct effect of service quality CARTER model and knowledge and awareness about the Islamic banking system on the relationship with the behavioral intention to subscribe Islamic banking system in Libyan context which is took a place during the period of 2012 to 2015, the result may not generalized to other time periods. However, actually, although this study suggested several practical and theoretical contributions, there still have some of its own limitations, which have to be considered with caution:

1- The current situation and conflict in Libya, where in somehow was one of the researcher concerns owing to the worries of the difficulties to reach all branches in the mentioned three states in Libya context which is a sample size concerns. Accordingly, the sample size was selected in thoughtfulness way. It was in respect with reviewing the related existing studies and well-known methods of determining the sample size.

The research has started earlier distributing of the research questionnaires. This has given enough time to the respondents in order to answer and handle these questionnaire back as early as possible. In actual fact this technique had gave the researcher enough time in order to analyze the responds bias and to look deep into the item's answers which enable him in understanding more of the research issue under study. With 58.9% of the sample size obtained, it is reflected an acceptable rate. Therefore, the researcher with strong believe think that this would not be an issue.

2- The current study tried to investigate the obvious reluctance of the Libyan customers/client intentions to subscribe the Islamic banking system. This was by adopting of CARTER model and the extent of Libyan banks customers' knowledge and awareness about the Islamic banking system as well as the interactions of government support and religious obligations. However, there are other factors might contribute to the intention behavior to subscribe the Islamic banking system in Libyan context.

These factors however, can be for instance, loyalty, trust, and satisfaction. Nevertheless, due to the time constraints, it was understandable by the researcher that, this research expected not to cover all the factors that can play roles in determining the behavioral intention of Libyan to subscribe the Islamic banking. However, the adoptions of the study variables' were in respect with previous gaps mentioned in the related theory and previous research.

3- With the adoptions of the quantitative research method, the study results have revealed significant findings. Quantitative research approach was very much helpful in translating the information collected by using the survey questionnaire or measurement instruments into significant results that were useful for the research development.

Besides, the uses of questionnaires have enabled the researcher in obtaining a large amount of information in short period of time in relativity cost effectively. The researcher managed to carry out the study with the mentioned 223 respondents with limited effect to the validity and reliability concerns.

4- Finally, there were concerns of the lack regarding prior studies dedicate to the issue under focus in the context of Libya. Besides, the lack of enough literature that

covers all the variables has drawing another challenge to the researcher. These were found to be one of the challenges since there are very limited studies containing all the related research variables in the North Africa and Libya in particular. Furthermore, the lack of accurate data in developing countries referring to Libyans' context, and the unavailability of public databases, had limits the researchers' ability to compare the research findings with other sources.

As actual fact, when it comes to the context of Libya there has been no other studies previously examined the effect of all or some of the constructs of the present study, the researcher had to proceed without the advantage of having other findings to be benchmarked or to be used in further explanations.

Nevertheless, although of these mentioned challenges and obstacles, by the help of Allah then the good guidance of supervision, the researcher had managed to overcome all of these challenges.

#### **6.14 Future Research**

Dealing with the banking system is an integrated process requiring the study of a range of factors that can be obstacles for the Libyan customers and clients intention to subscribe the Islamic banking system. Therefore, this study is important and a good attempt to find the reasons of why the majority of Libyan people as a Muslim country with 97% Muslim people have abandoning to deal with the Islamic banking system as it discussed in chapter one.

However, according to this study results, service quality CARTER model dimensions as the absence of government support seems to have a negative impact on the subscribing to Islamic banking services in the Libyan context.

However, although of the compliance to Islamic belief and religion obligation showed significance effect on INT, other service quality CARTER model dimensions can also be a vital factors in shaping some fundamental aspects of the people's behavior and attitude. This may perhaps be an important point that calls for further research in Libya which is 97% Muslims society. The study findings revealed that, majority of the response seems to avoid using the traditional banks that involves charging interest (riba) which forbidden according to Shariah law.

Another point that needs more investigation is the government support variable as a moderator on the relationship between CARTER model, KU and behavioral intention. The result of the finding showed the influence of government support having an inverse direction on the CARTER model toward the behavioral intention to subscribing the Islamic banking system and services.

The study revealed that government support has inconsistencies moderators' effect between the relationship of independent proposed factors and behavioral intention in the model. In addition, some future research efforts may be put forth to explore further the importance of government supportive as the foundation of any bank change initiative and how the dynamic interaction can enhance and attract behavioral intention.

On the other hand, although of the great emphasis on the service quality CARTER model theory and banking change and development in terms of the Islamic banking

system. This emphasis was in order proponent any strategy implementation initiative. It cannot be turned up successful unless there is a good fit between the intended on intention to subscribe the Islamic banking system and the influential service quality factors that provided by the bank. Service quality factors such as assurance, reliability, tangibility, empathy, responsiveness, however, always surfaces, as one of the main service quality strategy implementation's key success factor that bank can be sure about. It revealed from the study findings' that these factors were insignificantly affecting the INT.

These evidences encourages for further future research to give more attention to investigate the type of service quality that fits the intended strategy implementation for getting more attention to Libyan Islamic banking system customers and clients and the Libyan Islamic banking industry.

Additionally, although of the acceptable rate of response rate, which is found to be acceptable 58.9%, the response rate considered relatively small in such research. Therefore, researcher believes that this point can serve as an important opportunity for further research.

### **6.15 Recommendations of the Study**

The current study has investigated factors that influence on the IBS customers and clients' behavioral intention to subscribe the Islamic banking system banking in Libyan context. According to the findings of the present study, the researcher suggests the following.

First of all, based on the analysis of the data in particular GS10, GS11 items statements, the open-ended questions as well as from the respondents comments, it was reported that the majority of the study's respondents (54%) do not have enough believe of the full-fledged implementations of the Shariah principles in Libyan banks. Besides, those banks that claims that they deal and implementing with regard to Shariah rules are negligence of the role power of advertisements media-oriented and intensive. Therefore, these conclude to several recommendations and suggests as following:

- 1- Libyan banks should prioritize first on the full implementation of the Shariah principles in terms of financial products, services as well as the bank management and fiscal body in total aspects.
- 2- Libyan government should make use of the power of advertising and start national campaigns using different tools of media such as radio, television, newspaper and develop a positive attitude of advertising and championing toward subscriptions to the Islamic banking system.

This could be achieved through providing an advertisement through modern channels. This however, would make the population well known and aware of the benefits of the Islamic banking system services in order to increase the bank customer base and the welfare of people as one of its purposes.

- 3- As appears from the study results, people avoid using conventional banks as they continue to charge interest (riba), which is forbidden in Islam. Therefore, the researcher suggests that, Libyan government should take further steps in this regard. This could be by setting strict control on the role, regulations as well as activating the role of Shariah board.

The government should make sure that these banks following these regulations and promote financial transactions in all parts of the country according to the Shariah law, which will facilitate in building customers trust.

- 4- Islam is regarded as an inseparable part of Libyan society and is ingrained in its culture. In fact, 97% of the Libyan society constitutes in general are Muslims. The Quran provides clear guidelines for people in all aspects of life to follow including financial aspects of life and most of them have the Islamic values when dealing with financial institutions. As such, the Libyan people prefer to deal according to the Shariah law.

Based on the study findings, the monitoring authorities should facilitate and encourage the traditional banks to at least open the dual-window along with the Islamic banking system or open new departments that deal according to the Islamic values to motivate and encourage customers to join the banking system. In relation to that, the Malaysian experience in the field of Islamic banks is a good example of government support in this regard and it can be useful case to follow. In relation to that, the study revealed the Libyan Islamic banking system is in the initial stage and still young, and many services are lacking in the banking system owing to short experience and low-trained capable staff and management.

- 5- The study suggests that for the banks to obtain a good strategic position in the marketplace, they need to adopt both quality and innovation strategies and could broaden their services and produce new products and services to reach as much as customers as possible throughout the country. These kinds of strategies such as emphasizing on the training courses to the banks' employees may benefit banks to keep their competitive advantage by being customer oriented and to increase



their abilities of effectively coping with major challenges, particularly raising customers' expectations. In line with this, banks have to be creative in introducing new services and products and capable to prevent complaints from their customers through their adoption of high quality standards for all their activities and transactions.

- 6- Although of the significant findings regarding to the effect of knowledge and awareness about Islamic banking system, there still work to be done. The author recommend that, Libyan government and authorities should put more effort by encourage schools, universities and research groups (e.g. students, economics and scholars and researchers) to conduct more research regarding to Islamic banking system.

It is very observed that, there are remarkable needs for accurate data in developing countries and in Libyans' context in particular. Therefore, by offering the proper material, ease access to the database, accurate data and government reports, these kinds of encouragements and supports will surely enhance of the public knowledge and awareness about this promising system.

## **6.16 Conclusions**

In conclusion, this study has revealed a magnificent result in regarding to behavioral intention to subscribe the Islamic banking system in Libyan context. The service quality elements of banks whether by reinforcement of the Islamic system or conventional will keep on as one of the major issues related to the overall banks' or organizations' development and growth of their performance. This study investigated several variables that could influence the behavioral intention to subscribe the Islamic banking system in Libyan context.

The study has adopted service quality dimensions CARTER model to be the underpinning theory as well as the extent of Libyans' knowledge and awareness about Islamic banking system in order to study their effect on the behavioral intention to subscribe the Islamic banking system in Libyan context. In addition, the study has adopted the government support and religious obligations to test their interaction effect on between both service quality dimensions CARTER model, knowledge and awareness and Libyan's behavioral intention to subscribe Islamic banking system.

The result of this study revealed that, SERVQUAL (CARTER model) is valid model in predicting customer behavioral intention. The study results showed a significant influence of overall service quality dimensions CARTER model and knowledge, awareness on Islamic banking system on predicting the Libyans' behavioral intention to subscribe the Islamic banking system in Libyan context.

Compliance as one of the CARTER suggested model toward Islamic banking system, found to have the strongest effect on predicting of behavioral intention to subscribe the Islamic banking system. In contrast, assurances, reliability, tangibility, empathy, responsiveness, of the bank service quality provided found to be weakest determinant of behavioral intention. In addition, the study revealed that knowledge and awareness about Islamic banking system had strong effect on predicting of behavioral intention to subscribe the Islamic banking system as well.

Besides, the interaction of government support found to have a significant effect between both knowledge and awareness on Islamic banking system, overall service quality dimensions CARTER model and behavioral intention, and partially moderates

the relationship between compliance (out of CARTER model six dimensions) and Libyans behavioral intention to join the Islamic banking system.

It is obvious that, the role of government support (GS) in enhancing the behavioural intention of customers to any raising services of production is very vital in nowadays markets' (Mahul & Stutley, 2010; Hamid, 2006)(Metawa & Almosawi, 1998; Saad et al., 2010)(Metawa & Almosawi, 1998; Saad et al., 2010)(Metawa & Almosawi, 1998; Saad et al., 2010). Therefore, based on the study results it is suggested that, the libyan goverment should put more efforts in reinforcement of the islamic banking industry by contributing through raising the public awareness and give more support to these banks.

In addition, the study findings regarding to religion obligations' revealed that, a significant effect of religion obligations' found to be exist between both knowledge and awareness about Islamic banking system, overall service quality dimensions CARTER model and behavioral intention. However, both government support and religion obligations' found to have relatively insignificant effect on the relationship between the other service quality dimensions CARTER model namely (assurance, reliability, tangibility, empathy, responsiveness) and the Libyan's behavioral intention to subscribe Islamic banking system.

Furthermore, the current study revealed that the customer knowledge and awareness of the Islamic banking system was among the critical factors of the behavioral intention to subscribe the Islamic banking system. It is very understandable when the customers are not satisfied with their banks or organization performance of services provided that the customers' "s intention towards the organization will be less, they will

leave the bank or organization (Brayfield & Crockett, 1955; Pfeffer, 2007; Saeed, Waseem, Sikander, & Rizwan, 2014; Vroom, 1994).

Therefore, Libyan banks as well as government efforts should be based on an appropriate knowledge of the customers needs and requirements to gain their trust and acquire high level of satisfaction which will lead to high intention to subscribe the Islamic banking system (Pfeffer, 2007).

Given the key role of the knowledge and awareness of the Islamic banking system (KU), this study suggested that, the banks' management and policy-makers should initiate knowledge and awareness of the Islamic banking system through the establishment of an appropriate education, training and incentives programs to change the public thinking and behaviors towards the Islamic banking system. Therefore, based on the empirical results of this study it can be concluded that the supportive knowledge and awareness of the Islamic banking system can yield a high intention towards the Islamic banking system.

However, a reliable system of information regarding the customers feedback and complaints should be highly implemented. Additionally, the banks should regularly conduct survey to measure the customers level of satisfaction in terms of the service provided. By getting the customers suggestions and how to improve their performance, the behavioral intention of customers to subscribe the Islamic banking system shall be a increased.

To sum up, this study answered the research questions and accomplished its objectives and supported the notion of the CARTER model in the regarding the Islamic banking system within Libyan context. The Islamic banking system have received considerable

attention among studies, and it has been argued to some extent that ignoring the good knowledge and awareness as well as service quality that banks offer which of course based on the Shariah law, may affect the sustainability and growth of the Islamic banks.

This as result this might leads the people to not joining those banks. Decision makers, Libyan government and banks' managers should pay more attention to these issues otherwise; these issues might cause them losing their customers and find themselves out of business.

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