



## Griffith Business School

**Libyan Attitudes towards Islamic Methods of Finance:  
An Empirical Analysis of Retail Consumers, Business  
Firms and Banks**

Submitted in fulfilment of the requirements of the degree of

**Doctor of Philosophy**

By

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February 2009

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An Empirical Analysis of Retail Consumers, Business  
Firms and Banks**

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Doctor of Philosophy

February 2009

## **DECLARATION**

I certify that the ideas, research work, results, analyses and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree.

Alsadek Hesain Gait

## **ABSTRACT**

Libya is a predominately Muslim country where Islamic finance has not yet been established. However, given the current extensive program of financial reform in Libya and the rapid growth and appeal of Islamic finance in comparable economies, there is growing pressure for a system of Islamic finance to be provided. There is then a pressing need for research into the prospects for Islamic finance from a consumer and provider perspective to inform this debate and thereby meet the needs of policymakers, financial service providers and prospective users. Accordingly, this study of Libyan attitudes towards Islamic methods of finance, the first study attempted in the Libyan context and one of few studies globally, applies a model derived from the Theory of Reasoned Action to analyse attitudes towards Islamic finance. The particular focus is to understand how the Theory of Reasoned Action can be used for predicting and understanding attitudes towards the potential use of Islamic methods of finance by Libyan retail consumers, business firms and banks. Four main research questions are posed to address this objective. First, does awareness of Islamic methods of finance influence attitudes towards the use of Islamic finance? Second, do socioeconomic, demographic and other factors influence attitudes towards Islamic finance? Third, what are the principal motivating factors towards the potential use of Islamic finance? Finally, is religion the major influence on the likelihood of engaging in Islamic finance? Three surveys of 385 retail consumers, 296 business firms and 134 bank managers in Libya are conducted in 2007/08 to achieve this objective. Descriptive analysis and multivariate statistical analysis (including factor analysis, discriminant analysis and binary logistic regressions) are used to analyse the data. The principal findings are that awareness of Islamic methods of finance and socioeconomic, demographic and business characteristics are key determinants of the likelihood of the use of Islamic finance. Further, religion plays a key, though not the only, role in influencing these attitudes. The thesis findings are of key importance in informing future financial industry practice and financial policy formation in Libya.

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## CHAPTER 1: INTRODUCTION

### 1.1 Background

Islamic finance comprises financial institutions, products and services designed to comply with the central tenets of *Sharia* (or Islamic law). The current Islamic finance movement is now over three decades old. However, the conceptual development of Islamic finance first took place between the late 1940s and the mid-1970s. The huge influx of petrodollars into Middle Eastern economies in the 1970s and 1980s provided major enhancements to the establishment of several large Islamic banks in the region. Other Muslim countries imitated these breakthrough developments and gradually established their own Islamic financial institutions. Islamic banking and finance made steady progress over the intervening decades. However, it has now emerged as the fastest-growing segment of global finance in recent years owing to consistently high oil prices in international markets and increasingly favorable socio-political and economic conditions across the globe. Islamic banking and finance is now flourishing in Africa, Asia, Europe and North America, with the Middle East, South Asia and Southeast Asia the main emerging centers (Khan, Bhatti, Wilson and Natt 2008, p.3).

In the Middle East, where the majority of the population is Muslim, Islamic banks enjoy strong support from wealthy individuals, governments and other state institutions. Some developments such as the Gulf countries' decision to merge their monetary and central banking systems by 2010 will further impact on the Islamic banking and finance industry in the Middle East and elsewhere. In South Asia, Islamic banking has been recently revived in Pakistan and Bangladesh under a dual banking system and India and Afghanistan may adopt Islamic banking operations in the near future. Three Southeast Asian countries, namely, Indonesia, Malaysia and Singapore are promoting the most comprehensive and advanced version of Islamic banking and finance in their region. And the government of Sudan has also recently adopted more practical approach to promote the Islamic banking and finance practice in the region.

Islamic banking and finance is also gaining momentum in the United States and Europe. Currently, there are about 300 Islamic banking and financial institutions across 75 countries, holding a paid-up capital of over US\$13 billion, controlling assets worth US\$300-US\$500 and investments US\$500 billion-US\$800 billion, with an average annual growth of 15 per cent. It has been estimated that the Islamic banking and finance industry will reach US\$4 trillion by 2010 and that ultimately will account for 40 to 50

per cent of total savings of the world's Muslim population (Khan and Bhatti 2008, p.709-710).

## **1.2 Research Issues**

As illustrated above, the attitudes, perceptions and awareness of market participants (retail consumers, business firms and banks) towards Islamic methods of finance are an important consideration in its future expansion and development. These have been widely studied in Muslim and non-Muslim countries such as Egypt, Jordan, Singapore and the United Kingdom. Nonetheless, there are still many countries where Islamic methods of finance need to be studied and a number of challenges remain to be faced. More particularly, Libya is one of many countries that has not yet practised Islamic banking and finance, even though nearly all Libyans are Muslims. Accordingly, there is a strong possibility that Islamic banks and Islamic methods of finance will ultimately be established in Libya. Anecdotal evidence suggests there is already at least some support for Islamic methods of finance in Libya.

Moreover, Libya is considered to be an attractive geographical location situated as it is in the heart of North Africa and among countries already practicing Islamic methods of finance, including Egypt and Sudan. This makes it an important commercial and economical link between these countries. Libya is now seeking to turn itself into a free-market country to encourage investment, particularly foreign investment. This means opening the door for Islamic banks worldwide, especially in neighbouring countries to establish new branches in Libya. Therefore, empirical study is required to investigate Libyan attitudes towards Islamic methods of finance and their awareness of these new methods of finance. The aim of this study is to examine Libyan attitudes towards Islamic methods of finance, including those of consumers, business firms and banks.

## **1.3 Research Objectives**

This study's aim is to achieve the following objectives. First, examine the level of awareness of Libyan retail consumers, business firms and banks about Islamic methods of finance and its impact on their potential use of Islamic methods of finance. Second, determine the impact of demographic and socioeconomic profiles on Libyan retail consumers, business firms, and banks' attitudes towards potential use of Islamic methods of finance. Third, identify the main factors motivated and influenced Libyan retail consumers, business firms and banks' attitudes towards potential use of Islamic methods of finance. Fourth, identify which of these motivating factors has most impact on Libyan retail consumers, business firms and banks' attitudes towards potential use of

Islamic methods of finance. Fifth, analyse Libyan (retail consumers, business firms and banks) attitudes towards potential use of Islamic methods of finance. Finally, determine the future possibility of employing or providing Islamic methods of finance by Libyan retail consumers, business firms and banks.

#### **1.4 Research Questions and Hypotheses**

While the analysis of attitudes, perceptions and knowledge of conventional financial institution products and services has received widespread and extensive consideration, analysis of these same concerns relating to Islamic methods of finance is still in its infancy. In particular, only recently have researchers in Islamic banking begun to investigate these issues in line with the growth of Islamic banking globally. A major focus of these studies is on retail consumers' attitudes, perceptions, and awareness of Islamic methods of finance. However, this study is a comprehensive research regarding attitudes of the retail consumers, business firms and banks towards Islamic methods of finance in Libya.

In terms of these three groups and in accordance with TRA framework's correlations, therefore, there is a need to raise a major research question which enquires about how the Theory of Reasoned Action can be used for predicting and understanding the attitudes towards the potential use of Islamic methods of finance among Libyan retail consumers, business firms and banks. From this major research question, the following four questions are developed as follows: first, does awareness of Islamic methods of finance influence the attitudes of Libyan retail consumers, business firms and banks towards the potential use of Islamic methods of finance? Second, do socioeconomic and demographic factors influence Libyan retail consumers, business firms and banks attitudes towards the potential use of Islamic methods of finance? Third, what are the principal motivating factors towards the potential use of Islamic methods of finance by retail consumers, business firms and banks? Finally, is religion a major influence on the likelihood of engaging in Islamic finance by retail consumers, business firms and banks?

The research for this thesis incorporates consumer behaviour concepts derived from attitudes towards Islamic banking literature to examine factors identified by a modified version of the TRA model, which may influence potential use of Islamic methods of finance in Libya. A review of the available literature and based on previous research questions was a guide to establish number of research hypotheses include, H1. Awareness of Islamic methods of finance influences the potential use of Islamic

methods of finance. H2. Socioeconomic and demographic factors influence the potential use of Islamic methods of finance. H3. Various motivating factors influence the potential use of Islamic methods of finance. H4. Religion is a major influence on the likelihood of engaging in Islamic finance.

### **1.5 Research Contribution**

This study applies the Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA) to the use of Islamic methods of finance context and extends our understanding of the TRA by considering the internal and external of TRA variables in the use of Islamic methods of finance context. In particular, the level of awareness and consumers' attitudes towards potential use of Islamic methods of finance will be of value to the financial industry, government and foreign investors for improving financial Islamic literacy in Libya. Further, findings from this research will be of value to researchers interested in explicating the paths through which attitudes towards the use of Islamic methods of finance is manifested.

This study achieves a further contribution by extending the extant literature by examining attitudes of three different groups (retail consumers, business firms and banks) towards specific methods of finance in an Islamic banking context. Prior attitudes towards Islamic banking has focused on intention to use Islamic methods of finance in countries that already practiced Islamic methods of finance in formal basis during Islamic banks manner (Dusuki and Abdullah 2007; Okumus 2005; Bley and Kuehn 2004; Hamid and Nordin 2001; Naser, Jamal and Al-Khatib 1999; and Haron, Ahmad and Planisek 1994). However, retail consumers, business firms and banks' attitudes towards the potential use of Islamic methods of finance in Libya which does not practise Islamic banking in formal basis yet, provides a deeper understanding of consumers' awareness and attitudes towards Islamic methods of finance.

Finally, the study considers Islamic methods of finance in a population that has never attracted a great deal of attention: Libyans retail consumers, business firms and banks' attitudes towards Islamic methods of finance. Therefore, this study seeks to advance our knowledge of Islamic methods of finance use among these three groups. In fact, the first two categories of consumers represent an increasingly important market for Islamic methods of finance due to their desire to comply with *Sharia* as Muslims and this remarkably encourages the third category to apply these new methods of finance. To conclude, the last contribution of this study is to meet this challenge and extend our knowledge of this mixed market regard to Islamic methods of finance in Libya.

## **1.6 Thesis Structure**

The thesis itself comprises six chapters. Chapter 2 provides a description of Libyan financial system as a developing system which has undergone several transformations during the last few decades. It is worth noting in the Libyan banking context that the lack of Islamic banks can have negative impacts on financial investment in Libya. In contrast, steps have been made by the Libyan government more recently to move towards a market economy and opening the door for foreign investments represent the first step for development of Libyan banking system specifically and the Libyan economy as a whole.

Chapter 3 discusses the framework and concepts of Islamic finance. The discussion indicates that the principles of Islamic finance are inferred from Islam *Sharia* to provide guidelines to people in their financial transactions. The most significant one of these principles is the prohibition of *Riba* (usury or interest) which plays remarkable role in the use of Islamic methods of finance, *Mudarabah*, *Musharakah*, *Murabaha*, *Bai Muajjall*, *Bai Salam*, *Istisna*, *Ijarah* and *Quard Hassan* will be discussed in details.

Chapter 4 discusses the literature on the attitudes, perceptions and awareness of market participants (retail consumers, business firms and banks) towards Islamic methods of finance. This discussion indicates the development of the theoretical framework for this thesis. The literature contributes noticeably in designing this thesis's methodology aspects including the theoretical model, hypotheses, and questionnaires.

Chapter 5 presents a theoretical perspective and the empirical methodology used to collect data and to test hypotheses of research using a variety of statistical techniques. This chapter begins with a theoretical discussion to introduce the theoretical framework of this thesis in accordance with TRA. The research framework of this thesis is discussed in several steps to indicate an empirical methodological framework which is used in the thesis.

Chapter 6 presents the data analysis and results of the study. More particularly, using a variety of statistical techniques to test all the hypotheses proposed for Libyan retail consumers, business firms and banks that are tested towards the potential use of Islamic methods in a finance context.

The final chapter, Chapter 7, provides a summary of the thesis, a discussion of the main findings, the research contributions of the thesis, including its theoretical and empirical contribution, and the implications for practice and policy. A number of research limitations and areas for further investigation are also given.

## **CHAPTER 2: THE LIBYAN FINANCIAL SYSTEM**

### **2.1 Introduction**

Libya is a developing Arab state located in the north of Africa. It is the fourth largest country in Africa and it occupies an area of almost 1.8 million square kilometres. The Libyan population is 5,850 million, of whom most if not all are Muslims (General Information Authority 2006). Arabic is the official language, while English and Italian are also used in business and trade. In addition, Libya is one of the Arabic oil exporting countries that has relatively large surpluses revenue. However, the Libyan economy is still a developing economy that has been under reorganization in recent years with the attempt of the Libyan government to move towards a market economy and opening the door for foreign investments. In particular, the Libyan government is increasingly moving towards the liberalisation and reform of the country's financial system in accordance to the *Law No.5 of 1997* regarding the encouragement of the foreign capital investment such as foreign banks to enter and work inside Libya (Central Bank of Libya 2007).

The purpose of this chapter is to discuss the Libyan financial system components as a developing system which has been under several transformations during the last few decades. The chapter is structured as follows. Section 2 provides a brief background about the history and the development of the Libyan economy. Section 3 discusses the structure of the Libyan finance system. The Libyan banking system is discussed in Section 4. Section 5 includes an analysis and discussion of the evaluation of the Libyan banking system. Some concluding remarks are made in the final section.

### **2.2 The Libyan Economy**

Libya was in deep poverty at the time of independence in 1951 when most of the Libyan people earned a per capita income of less than US\$50 per year (Abohobiel 1983). The country has risen from a capital-deficit economy at the time of independence to a capital-surplus when petroleum became a major of economic resources for the Libyan economy. Libyan economic progress following independence can be subdivided into three periods: (i) 1951–1961; (ii) 1961–1969; and (iii) post revolution –1969 and after, which moved the Libyan society from a Western-oriented capitalist country to a strongly nationalist, non-aligned country (Metz 1987). The historical background of Libyan economy is discussed as follows:

### **2.2.1 Historical Background**

In the period pre-discovery of petroleum, the Libyan economy was based basically on agricultural products such as fruit trees, crops and livestock products. Agriculture provided the raw material for much of the country's manufacturing sector, exports and trade with the agricultural sector contributing more than 30 percent of total gross domestic product (Metz 1987). However, agricultural expansion was severely limited by climatic conditions and there was little export potential that could be exchanged for the import commodities that the country needed but did not produce (Higgins 1968, cited in Abohobiel 1983). In terms of resources, the Libyan economic position during (1951–1961) was unwelcoming and Libyan economy depended on the help of foreign countries such as Italy, the United Kingdom and the United States (Metz 1987).

The first petroleum exports took place in 1961 when the first crude oil shipment left Libya destined for Europe (Metz 1987). In 1962 the government's revenue from petroleum royalties and taxes in that year totalled Libyan dinars LYD54.700 million (US\$153.160 million) and Libyan Gross Domestic Product (GDP) in that year was LYD192.000 million (US\$537.600 million). By 1969 the Libyan revenue from petroleum exceeded LYD936.500 million (US\$2,622.200 million) that contributed largely in the increase of GDP to reach LYD1358.000 million (US\$3,802.400 million) in the same year. However, exports grew from LYD55.8 million (US\$156.24 million) in 1962 to LYD937.700 million (US\$2,625.560 million) in 1969, while imports increased from LYD73.400 million (US\$205.520 million) in 1962 to LYD241.300 million (US\$675.640 million) in 1969 (International Monetary Fund 1980, p. 270-271). With these changes, oil has become the leading product in the Libyan economy. During the decade following the discovery of petroleum, Libya essentially had a dual economy comprising oil and non-oil. Little relationship existed between these parts of economy except that the oil companies employed limited quantities of local labour and paid the government royalties and taxes.

The new government arising from the revolution of September 1, 1969 introduced a new policy of nationalizing the petroleum sector and its foreign companies by employing more Libyans and sharing the ownership of these companies with Libya through a program of nationalization (Metz 1987). This program, in addition to establishing at least temporary veto power over the activities of the oil companies, included state ownership of the banking and insurance system as well as placement of all forms of trade under Libyan control (Abohobiel 1983). For example, in December

1971 the government nationalized the production and exporting facilities of the British Petroleum Company. By the end of 1979 the government's role in the economy was overwhelmingly dominant in such areas as mineral rights, foreign trade, real estate property and industry (Benkato 1981).

### **2.2.2 Economic Development**

The Libyan economy is considered a developing economy that was affected by petroleum and the role of Libyan government according to many development plans. The first two plans were pre-revolutionary and the others had been issued post-revolutionary. In particular, the pre-revolutionary plans covered the period 1963–1968 and 1969–1974 while post-revolutionary were from 1973–1975 and 1976–1980 (Benkato 1981). There are two noteworthy differences about Libyan's development plans. The first is their rapid increase in size and the second is the shift in sectoral emphasis between the pre-revolutionary plans and the post-revolutionary plans (Benkato 1981).

In 1963 the government introduced the first five-year plan (1963–1968) which for practical purposes represented the beginning of Libya's development planning efforts. In this five-year plan (1963–1968), the Libyan government decided to spend some 70% of Libya's petroleum revenue on a development plan that aimed to develop Libyan economic sectors such as industrial production, agricultural and social development (Encyclopedia of the Nations 2007). According to the Encyclopedia of the Nations (2007), of this earmarked amount, 23% was allocated for public works, 13% for education, 17% for agriculture, 16% for communication, 7% for public health and 4% for industry. The total amount budgeted for the first plan was approximately LYD 460.000 million (Libyan Arab Foreign Bank 1975, p. 31).

Even though the petroleum sector in Libya contributed significantly to Libyan GDP, the first five-year development plan enhanced other economic sectors' contributions to GDP and improved some aspects of social development (Benkato 1981). For example, Allan and McLachlan (1976, p. 334) observed that the northern coastal areas in Libya witnessed a significant change in agricultural products during the period 1963–1968 which was affected by investment of LYD29.200 million in just agriculture sector. Overall, the value of total output of GDP increased from LYD277.000 million in 1963 to LYD1,194.000 million in 1968. On a percentage basis, this represented an increase of more than 330 percent between 1963 and 1968. As result, per capita income was estimated to have increased from about LYD185.000 in 1963 to about LYD649.000 in

1968 (International Monetary Fund 1980, p. 270-271). In addition, the number of schools and health centres increased rapidly.

The second economic development plan was in place for the five years from 1969 to 1974. The Libyan government budgeted LYD1,149.500 million for this plan (Allan and McLachlan 1976, p. 334). However, this plan was overtaken by the revolution of September 1969 when the new government introduced new ministers who had different strategies for the various sectors of the Libyan economy. Therefore, those three years after revolution witnessed many changes in all sectors and this plan was not implemented (Benkato 1981).

The revolutionary medium-term development plan (1973–1975) is the third plan conducted in Libya after the discovery of petroleum and the first plan for the revolution government. In this plan, the Libyan government stated its goals for economic development to obtain foreign currency without depending on the petroleum sector (Abohabiel 2003). This plan was budgeted to cost LYD1,168.000 million (Libyan Arab Foreign Bank 1975, p. 32). Its investment was allocated as follows: industry and mineral resources 15%; agriculture 14%; communication 14%; housing 11% ; petrochemicals 11%; and education 9% and overall this development plan targeted a growth of 11% annually in GDP (Encyclopedia of the Nations 2007). In addition, most of other sectors witnessed a remarkable development since in this plan the Libyan government budgets relatively large amounts of petroleum revenue for improving economic and social sectors. This development also came from the fact that Libyan government that time was in need of supporting its position with the Libyan people through noticeable development.

By the end of 1974, government revenue from the petroleum sector exceeded LYD2,000.000 million per year (International Monetary Fund 1980, p. 270-271). Thus, there was a five-year development plan put in place for the years from 1976 to 1980 which was budgeted to cost LYD7,170.000 million (Libyan Arab Foreign Bank 1975, p. 32). This development plan's fund was allocated in economic and social sectors. In particular, this development plan focused fundamentally on three sectors, agriculture, industry and housing. This plan was a strategy for promoting the Libyan government to achieve its goals towards economic and housing development. In general, even though Libyan exports of crude petroleum increased from LYD1,925.300 in 1975 to LYD6,287.300 in 1980, this development plan raised other exports of goods such manufacturing goods from LYD97.900 million in 1975 to LYD199.100 million in 1980.

Also, the GDP has increased from LYD3,780.000 million in 1975 to LYD10,882.000 in 1980 at the end of this development plan (International Monetary Fund 2000, p. 640-643). As a result the Libyan government's next development plan was for the period from 1981 to 1985 (Encyclopedia of the Nations 2007).

The end of 1980 was when the Libyan petroleum revenue reached its highest value from 1970 – 1989. This was because of the rapid increase in the price of crude petroleum that reached about US\$41.000 for barrel (Abohobiel 2003). However, the Libyan exports of crude petroleum after this year decreased remarkably which affected Libyan government's decisions for future plans. Libyan exports of crude petroleum from 1980 to 1985 were LYD6,287.300, 4,384.300, 3,718.000, 3,370.700, 3,020.800, 3,184.300 million respectively (International Monetary Fund 2000, p. 640-641). Clearly, the drop in petroleum income caused a contraction in general exports in Libya that achieved a deficit in its balance payments in the period of 1981–1985 (Central Bank of Libya cited in Abohobiel 2003, p. 15). On the other hand, the total cost of the development plans of 1973–1975, 1976–1980 and 1981–1985 was LYD21,000.000 million (Abohobiel 2003, p10). Therefore, the ~~(1985)~~ development plan was budgeted to cost LYD12,662.000 million and called for investment in industry 23%, agriculture 18%, communications 12%, and electricity 12% (Encyclopedia of the Nations 2007). It raised other exports of goods and services from LYD199.100 in 1980 to LYD461.300 in 1985. In contrast, the GDP decreased from LYD10,882.000 million in 1980 to LYD 8,227.000 million in 1985 (International Monetary Fund 2000, p. 642–643).

During the period from 1986 to 2000, the development plans were stopped and the Libyan government started to enhance its economic development with annual budgets. Although these annual budgets were not coordinated according to the drop in petroleum revenue, the total of these budgets was LYD10,800.000 million (Abohobiel 2003, p. 10). Clearly, this decrease in development funds caused many changes in the Libyan economic development in general. For example, exports of crude petroleum were about 97% of the whole exports as an average during this period. In addition, the petroleum and natural gas sector contributed in the GDP by 31.36%, where as the contributions of the agriculture, industry and services sectors were 5.129%, 4.25% and 45.9% respectively (Economic and Social Indexes of Libya cited in Abohobiel 2003, p. 13-15). However, the Libyan balance payments has achieved deficit during many years in this period that are 1987–1988 and 1993–1998 (Central Bank of Libya cited in Abohobiel 2003, p. 15).

Furthermore, even though GDP had increased again in the nineties with the increase in the petroleum prices that made GDP reached LYD17,550.000 million in the year of 2000, the Libyan economy was going through an economic stagnation stage (International Monetary Fund 2000, p. 423). This economic stagnation was caused by stopping of development plans and decreasing in funds that budgeted for annual budgets, as well as international sanctions in 1990s (International Monetary Fund 2006a). According to Libyan General Planning Council (cited in Abohobiel 2003, p. 22-23), this decreasing in budgeted funds for economic development in the period from 1986 to 2000 led to unsatisfactory results in Libyan economy as follows: Libyan economy continues depending on the petroleum revenue as a source for foreign currency, declining in industrial and agricultural products, inflation and increase in commodities, decreasing in the level of education and health and the decrease of money value that affect negatively on the income of the Libyan people. Regarding Libyan industry and agriculture, the Libyan General Planning Council (cited in Shaluf and Farrs 2003) confirmed that Libyan industrial and agricultural activities were still under the requested level.

As a result of the deterioration of Libyan economic conditions in the mid-980s and 1990s, the Libyan government put in place a five-year development plan (2001-2005) at the end of 2000 (Encyclopedia of the Nations 2007). This development plan was to reform the Libyan economy to become more similar to countries with a high level of the petroleum revenue. Therefore, this development plan was budgeted to cost LYD35,000.000 million to be suitable for the future development and overcome the previous economic mistakes and these investments focused on hydrocarbons, power and water (Encyclopedia of the Nations 2007). In addition, this comes after the freezing of the international sanctions in 1999 that made Libyan government look forward to reform and open its economy (International Monetary Fund 2006b, p. 3). According to Shaluf and Farrs (2003, p. 80) the year of 2001 indicates that the Libyan petroleum reserve was 36 billion barrel, natural gas reserve was 1274 billion cubes meters, the Libyan deposits in Arabic commercial banks was US\$12,200.500 million and the Libyan monetary reserves was US\$14,278.000 million. These resources could be invested in effectively to promote the Libyan economic development especially with the fact that international sanction on Libya was lifted in 2003 and 2004 (International Monetary Fund 2006a).

However, in this period GDP increased gradually from LYD18,745.000 million in 2001 to LYD60,040.000 million in 2005, as well as there was also gradual increase in the percentage of the Libyan non-petroleum sector's contribution in general GDP from 5.9% in 2001 to 12.5% in 2005 (International Monetary Fund 2007a, p. 3). This means that the Libyan economy was affected by some processes that have been made for liberalizing economy, such as unifying the exchange rate, privatizing some state enterprises and allowing foreign investment in some economic sectors (International Monetary Fund 2006b). In 2006, the Libyan economy continued to be gradually developed with the increase of petroleum prices and the Libyan government's economic reforms. The GDP grew about 5.5% and non-petroleum revenue grew faster more than 30% that showed the importance of the increase in government's spending by 12% from the year of 2005 as well as this development spending increase influenced the GDP to be increased as well by 17% (International Monetary Fund 2007b, p. 6-7). To conclude, the Libyan economy needs to continue with some structural reforms that will be an effective way to achieve higher rates of development internally and externally especially with the current high petroleum revenue.

### **2.3 Structure of the Libyan Financial System**

Like many other developing countries, Libya lacks active and efficient money and capital markets. The public generally tend to move money into real assets rather than financial assets. This is because of the absence of investment opportunities that enhanced the establishment of financial market for many types of securities. Therefore, the Libyan economy had no securities exchange until 2004 when the Central Bank of Libya established the Libyan Securities Exchange (Central Bank of Libya 2006). However, despite this Libya witnessed noticeable development in the establishment of many financial institutions that represent the whole Libyan financial system. The structure of the Libyan financial system can be indicated as shown in Figure 2.1.

Clearly, Figure 2.1 indicates that Libya has relatively a small financial service sector compared to other exported oil countries specially those in North Africa or in Middle East. It shows that the Libyan financial system has three types of institutions namely banking institutions, non-banking institutions such as insurance companies and other financial institutions such as Libyan foreign investment companies. These institutions can be observed briefly as follows:

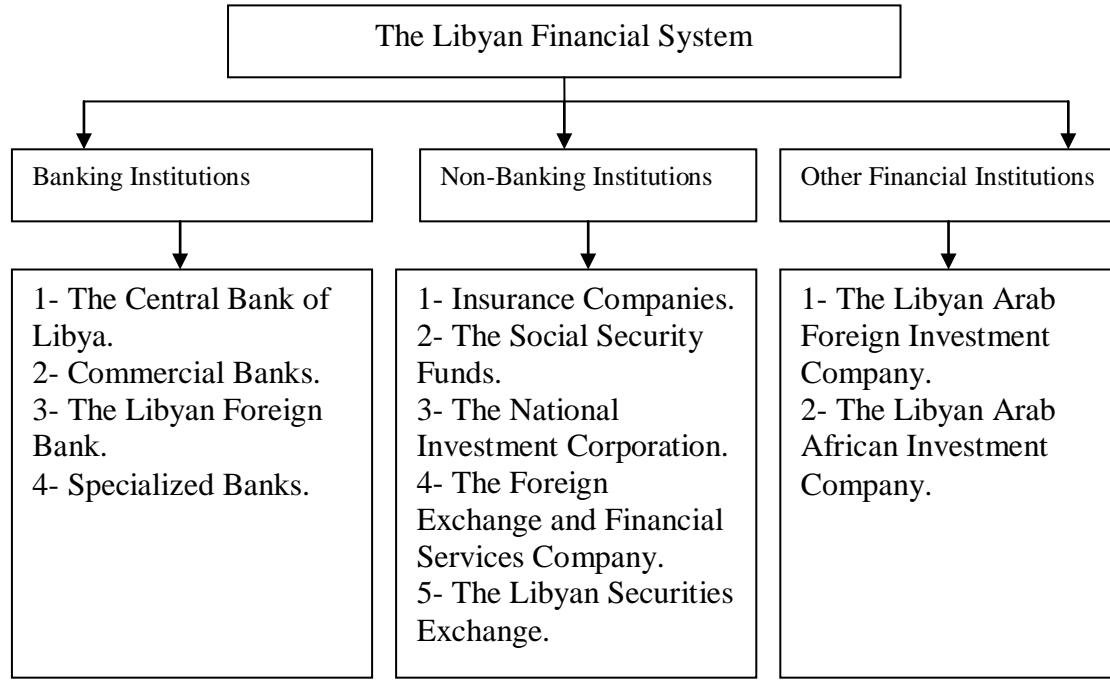


Figure 2.1: Structure of the Libyan Financial System (The Central Bank of Libya 2006).

### **2.3.1 Banking and Non-Banking Institutions**

The Libyan banking sector nationalized in the early 1970s after following the revolution of September 1, 1969. The nationalization enhanced the Central Bank of Libya's supervision of other banking institutions as well as promoting the process of the establishment new commercial banks all over the country. In recent years, Libya has a complete banking system, especially after *the Banking Law No.1, 1993* which allows individuals and firms to establish private banks (Central Bank of Libya 2006). Currently the Libyan banking sector includes the Central Bank of Libya, commercial banks, the Libyan Foreign Bank and specialized banks. Details of these institutions will be presented in Section 4. In addition to banking institutions there are many other non-banking institutions that deal in financial processes such as currency exchange and investment operations. Some of these institutions operate side by side with commercial banks for three decades like insurance companies, but some of them just recently have been established such as Libyan Securities Exchange. It is useful briefly to give an overview about each of these institutions as follows:

#### **2.3.1.1 Insurance Companies**

Before 1969 there were many insurance companies in Libya that handled almost all kinds of insurance such as life or fire. Four were Libyan and the rest were either branches or agencies of foreign insurance companies. In 1970 the insurance companies were reorganized and all foreign companies were nationalized (Central Bank of Libya

2006). Subsequently, those companies were merged into two companies, the Libya Insurance Company and the Al-Mukhtar Insurance Company, with a capital of LYD1.000 million for each. In these companies the government acquired 60% of the capital and the public was allowed to subscribe to the remainder. In 1980, the Al-Mukhtar Insurance Company merged with Libya Insurance Company, increasing its capital to LYD30.000 million, and subsequently LYD50.000 million in 2000 (Libya Insurance Company 2007). The Libyan insurance industry continued just with Libya Insurance Company until 1999 when the private sector was allowed to establish insurance companies. On 1 April 1999 the United Insurance Company started its insurance activities as a private company with a capital of LYD10.000 million (United Insurance Company 2007). By 2005 the establishment of the private insurance companies increased to make extra insurance companies such as the African Insurance Company and the Al-Sahara Insurance Company (Central Bank of Libya 2006).

#### **2.3.1.2 Social Security Funds**

Libya has been interested in social security since the early 1980s to focus on comprehensive insurance system for the Libyan people. For example, it provided some benefits that were designed to protect the common content of some of the risks such as provision of income in the event of loss of the ability to work and produce. Social Security Fund was established on first of June 1980 as a first institution that aimed to ensure the basic needs of family members through steady income during the period of disruption of its work temporarily or permanently. This institution depended on monthly contributions deducted from the salaries of the Libyan workers for financing its liabilities and investing the surpluses in investment projects (Social Security Fund 2007). In addition, the Libyan government established the Social Solidarity Fund according to Law Number 10 in 2000 to be public institution that performed the social solidarities issues such as subventions to support needy people (Central Bank of Libya 2006).

#### **2.3.1.3 National Investment Corporation**

According to *Law No.1 in 1986*, this institution was established with a capital of LYD50.000 million that divided to 5 million parts. This investment corporation was established to organize the contributing of the Libyan people in public companies as shareholders. Consequently, the National Investment Corporation was allowed to invest its assets in all types of investment in Libya as a national company and it can establish

other companies that invested directly in different economic activities all over the country (Central Bank of Libya 2006).

#### **2.3.1.4 The Foreign Exchange and Financial Services Company**

This is a joint stock Libyan company established in accordance with the decision of *the General Peoples' Committee No.611 of 1994* and the Secretary of *the General Peoples' Committee for Economy & Commerce No.327 of 1994* with a capital of LYD7.000 million. The shareholders in this institution are the Umma Bank, the Commercial National Bank, the Wahda Bank, the Sahara Bank, the Jamhuriya Bank, the Libyan Arab Foreign Investment Company and the Libyan Arab Foreign Bank with the same share that was 14.29% (Foreign Exchange & Financial Services Company 2007). The company aimed to undertake financial services and foreign exchange work inside Libya. In other words its financial operations can be selling and buying of foreign currencies, buying and selling of securities and shares and other banknotes and internationally and locally transfer money as examples. Furthermore, it can invest its money in the field of its activity including lending and borrowing from banks and other financial institutions locally or internationally (Foreign Exchange & Financial Services Company 2007).

#### **2.3.1.5 Libyan Securities Exchange**

Even though securities exchange markets have been established in the most of North African countries for many years ago, just recently in 2004, the Central Bank of Libya had decided to open a specific department for securities exchange in accordance with the decision of *the Governor of the Central Bank of Libya No. 9 of 2004* in its central building in Tripoli (Central Bank of Libya 2006). On third of June 2006 the Libyan Securities Exchange has started its activities as an independent institution in accordance with the decision of *the General Peoples' Committee No. 134 of 2006*. This institution is still in the beginning of the establishment because there are just seven companies that display its securities in this institution (Libyan Securities Exchange 2007).

### **2.3.2 Other Financial Institutions**

Although there are many banking and non-banking institutions that contribute in the building of the Libyan finance system, there are just two financial companies which are specialists in foreign investments. These institutions can be discussed briefly as follows:

#### **2.3.2.1 The Libyan Arab Foreign Investment Company**

This financial institution was established in accordance with *Law No.6 of 1981* with a capital of LYD500.000 million for investments purposes and this law allowed it to

invest the Libyan funds outside the country in any kind of economic activities such as agriculture, industry, transportation, and lend and borrowing funds. The aim of its investments was to contribute in promoting the development of the Libyan economy. For example, its net income in the end of 2004 was LYD54.100 million and its assets in that year were LYD1, 419.200 million (Central Bank of Libya 2006).

### **2.3.2.2 The Libyan Arab African Investment Company**

The Libyan Arab African Investment Company is a financial institution that was established in accordance with the decision of *the General Peoples' Committee No.660 of 1990* with a capital of LYD100.000 million to invest the Libyan funds in the African countries except the Arabic countries. Currently, the investments of this financial institution are available in more than 25 African countries with many types of economic activities such as agriculture, industry, hotels, real estate and trade to mining and telecommunications (Libyan Arab African Investment Company 2003). In addition, the African investment opportunities enhanced this financial institution to develop its investments noticeably. For instance, its investments increased from LYD214.400 million in 2000 to reach LYD381.900 million in 2004 with increase by 58.2%. Furthermore, this financial company decided on thirteenth of September 2005 increasing its capital from LYD100.000 million to LYD400.000 million to budget the huge amount of investments in the African countries and to achieve revenue that can contribute effectively in the development of the Libyan economy (Central Bank of Libya 2006).

To conclude this section, even though the Libyan financial system seems to be a varying system, it is still a limited system compared to the other similar developing countries such as Egypt, Saudi Arabia and Jordan. This can be inferred from the absence of many types of financial institutions such as financial investment companies that play significant role in enhancing the investment process inside and outside Libya. The main reason for these limitations can be interpreted for the control of Libyan government in all economic activities for a long time until 1992 when *the Law No.9 of 1992* allowed a new basis for individuals and firms to engage in economic activities and professional financial services and investments (Ahmad and Gao 2004, p.368). However, private sectors in Libya started weak due to the absence of organized laws and the deterioration of the Libyan economic conditions in the mid 1980s and 1990s. Also, there was no competition in Libya from foreign financial investment at all, thus the Libyan financial system was driven by state-controlled without need for a large varying financial system.

According to Al-Ferjany (2003, p. 311) the contribution of the Arabic and foreign investment in economic development during the period from 1980 to 1999 were 0.01% and 1.99% respectively. These reasons supported the control of the government in financial system to be driven with few financial institutions.

#### **2.4 Structure of the Libyan Banking System**

Banking institutions are the earlier financial institutions that were established in Libya either by Libyan government or foreign colonized countries. However, Libya had an independent banking system just in 1970 when the revolution government nationalized all foreign banks to create a complete banking system that was a public banking sector and fully owned by the Libyan government (Lenaghan 1987). The Libyan banking system continued to be controlled by the public sector until 1993 when a new law allowed the establishment of private banks (Central Bank of Libya 2006). In addition, the Libyan banking system still depends on commercial banks' aspects and Figure 2.2 shows its structure as follows:

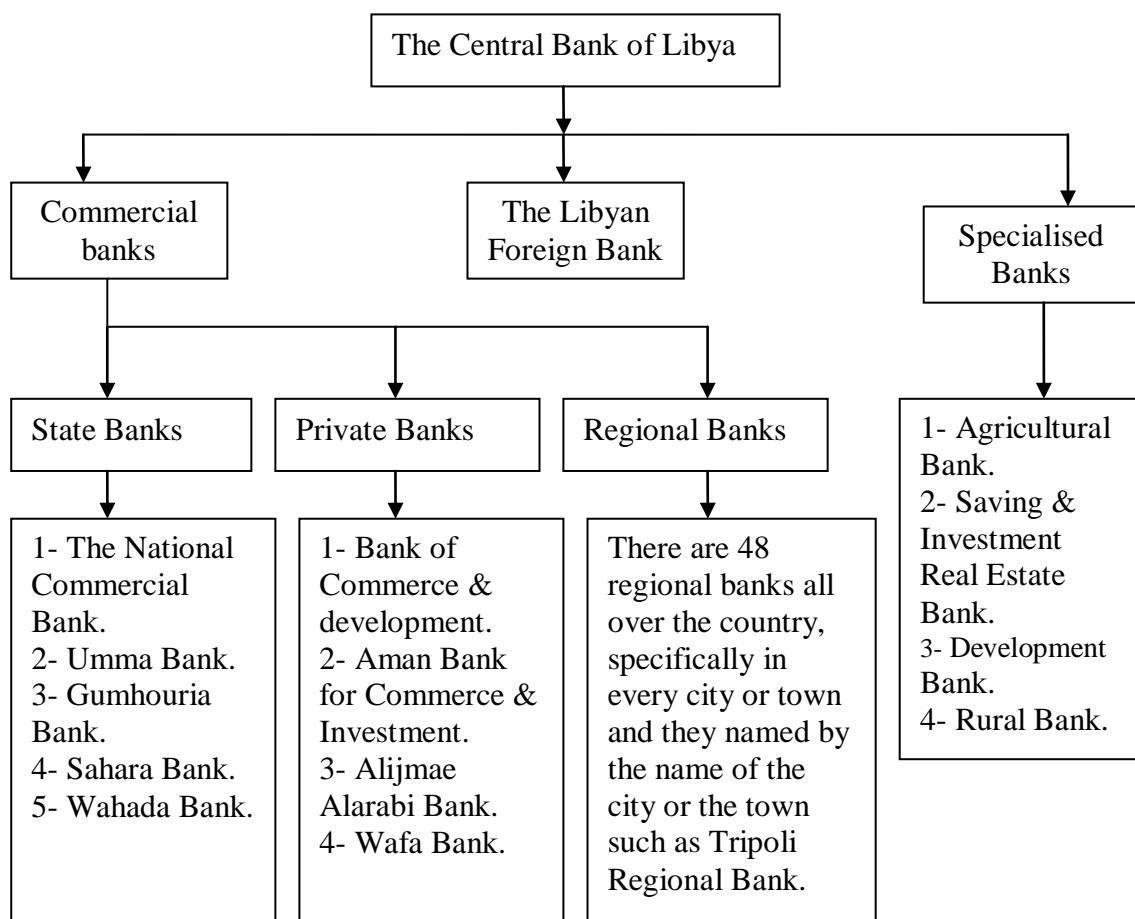


Figure 2.2: Structure of the Libyan Banking System

Source: Central Bank of Libya 2006.

#### **2.4.1 Central Bank of Libya**

In 1956, Libya established the National Bank of Libya to replace the Libyan Currency Committee and to perform some functions as a central bank. In 1963 the National Bank of Libya was replaced by the Bank of Libya that became the supervisor of all banks in Libya after nationalization (Lenaghan 1987). Later the Bank of Libya changed its name to be called the Central Bank of Libya and its functions have grown from limited to maintaining sterling assets against the issue of local currency to control many issues such as “issuing and regulating banknotes and coins in Libya, maintaining and managing the official reserves of gold and foreign exchange, acting as a banker to the commercial banks, taking appropriate measures to deal with foreign or local economic and financial problems and supervising commercial banks to ensure the soundness of their financial position and protection of the rights of depositors and shareholders” (Central Bank of Libya 2007). In other words, the Central Bank of Libya represents a banker to the state, banker to other banks, supervisor and regulator of banking activities and an enhancer to the economic development in Libya.

In 2005 the Central Bank of Libya has become under the auspices of the secretariat of the General People’s Congress in accordance with the Banking Law No.1 of 2005 and it should carry out its functions and achieve its objective within the framework of the government’s general policy (Central Bank of Libya 2007). Noticeably, the Central Bank of Libya has growth rapidly during the last three decades especially after it has established four branches that cover the west, middle, east and the south Libya. Particularly, they are in Tripoli (west), Sert (middle), Bangaze (east), Sabha (south). In addition, its assets increased from LYD135.700 million in 1966 to reach LYD58.400 billion in 2005 (Central Bank of Libya 2006).

#### **2.4.2 Commercial Banks**

Commercial banks are the earlier banking institutions that have been established in Libya since the beginning of the 19<sup>th</sup> century. However, these banks were established by foreign countries such as Italy and Britain without any establishment for the Libyan owned banks at that time. For example, the Banco di Roma was established in 1907, the Bank of Napoli, the Bank of Italy and the Banco di Sicilia in 1913 and the Barclays Bank in 1943. In 1963 most of these banks became Libyan joint-stock companies that were owned by the Libyan government or the Libyan people with at least 51% in accordance with *the law No.4 of 1963* that aimed to organize and build the Libyan banking system (Central Bank of Libya 2006). For instance, the Banco di Roma became

the Umma Bank, the Banco di Sicilia became the Sahara Bank and the Barclays Bank eventually became the Gumhouria Bank. Later in 1970, *the Banking Law No.153 of 1970* passed for nationalizing all banks in Libya to be owned completely by Libyan public and private sectors (Central Bank of Libya 2006).

According to *the Banking Law No.153 (1970)*, *the Banking Law No.1 (1993)* and particularly *the Banking Law No.1 of 2005* (cited in Central Bank of Libya 2007), any company that ordinarily accepts deposits in current demand accounts or time deposits, grants loans and credit facilities and engages in other such banking activities shall be considered a commercial bank. In addition, these laws have observed the considered activities in which a commercial bank engages, especially *the Banking Law No.1 (2005, p. 23)* as follows:

The cashing of checks made out to and by customers; services relating to documentary credits, documents for collection, and letters of credit; issuance and management of instruments of payment including monetary drawings, financial transfers, payment and credit cards, traveller's checks, etc; sale and purchase transactions involving monetary market instruments and capital market instruments to the credit of the bank or its customers; the purchase and sale of debt, or without the right of recourse; lease financing operations; foreign exchange transactions in spot and forward exchange markets; the management, coverage, distribution, and transaction of banknote issues; the provision of investment and other services for investment portfolios, and the provision of investment trustee services, including the management and investment of funds for a third party; management and safekeeping of securities and valuables; provision of trustee or financial investor services and any other banking activities approved by the Central Bank of Libya.

Moreover, *Banking Law No.1 (2005, p.28)* strictly prohibits Libyan banks from engaging in the transactions that reflect operations by Islamic banks as follows: “Wholesale and retail commerce, including importation and exportation and brokerage or commercial agency activities as well as entry as a general partner into partnerships and the like”. Clearly, these laws organized the Libyan commercial banks that started with just five public commercial banks which can be presented briefly as follows:

#### **2.4.2.1 State Commercial Banks**

Since 1970 that was the year of the nationalization for all commercial banks in Libya until now there are just five state commercial banks in Libya, particularly they are the National Commercial Bank, the Umma Bank, the Gumhouria Bank, the Sahara Bank and the Wahada Bank. First of all, the National Commercial Bank was established in 1970 in accordance with *the law of the nationalization No.153 of 1970* and currently its capital is LYD100.000 million that fully owned by the Central Bank of Libya. In 2005

its branches reach 50 branches and 13 agencies all over the country (Central Bank of Libya 2006). The Umma Bank also, was created by *the law of the nationalization No.153 of 1970* with a capital of LYD500.000 thousands that fully owned by the Central Bank of Libya, and this capital increased to become currently LYD100.000 million. In addition, the Umma Bank's assets were LYD2,525.000 million in the balance sheet of 2005 and it has 46 branches and 8 agencies (Umma Bank 2005). The Gumhouria Bank is the Barclays Bank which nationalized in 1970 in accordance with *the Banking Law No.1 of 1970* to become fully owned by Central Bank of Libya. This bank has 55 branches and 30 agencies with assets of LYD4,617.000 million that makes it the biggest state bank in Libya and its capital is LYD100.000 million in accordance with its balance sheet of 2005 (Gumhouria Bank 2003). The Sahara Bank was established as a result of nationalizing some foreign banks in 1970 and 83 % owned by the Central Bank of Libya and the rest by the Libyan regional sector. The Sahara Bank has 46 branches and 7 agencies that worked all over the country. According to the Sahara Bank's balance sheet of 2005, its assets reached LYD2,736.000 million with a capital of LYD126.000 million (Sahara Bank 2006). Finally, the Wahada Bank was also established as a result of nationalizing some foreign banks in 1970 and 87% owned by the Central Bank of Libya and the rest by the Libya regional sector. Currently, in 2005 its assets were LYD2,530.000 million with a capital of LYD108.000 million that contributed among 60 branches and 11 agencies throughout the country (Wahada Bank 2005).

#### **2.4.2.2 Private Commercial Banks**

Private commercial banks currently have been established as an attempt from the Libyan government to provide an opportunity for the regional sector (individuals and firms) to contribute in economic activities. In particular, these banks have been established in accordance with *the Banking Law No.1 of 1993* that organized the establishment of banks in Libya and their activities such as monetary and credit. According to this law, there are four private commercial banks, the Bank of Commerce and Development, the Alijmae Al-arabi Bank, the Aman Bank for Commerce and Investment and the Wafa Bank (Central Bank of Libya 2006). In brief detail, the Bank of Commerce and Development started its activities on the ninth of June 1996 in the city of Benghazi with a capital of LYD9.000 million. By 2005 it has 6 branches and 8 agencies and its assets were LYD907.000 million (Bank of Commerce & Development 2005). The second private commercial is the Alijmae Al-arabi Bank that established on the first of July 2003 with a capital of LYD1.000 million and it has 3 branches and one

agency in accordance with 2005 statistics (Central Bank of Libya 2006). The Aman Bank for Commerce and Investment established in the city of Tripoli on the end of December 2003 with a capital of LYD3.000 million and it has one branch and seven agencies (Aman Bank 2003). The last private commercial bank is the Wafa Bank which started its activities on the twelfth of March 2004 with a capital of LYD5.000 million and currently it has 3 branches and one agency (Central Bank of Libya 2006).

#### **2.4.2.3 Regional Banks**

Regional banks established at the beginning of 1996 as commercial banks in every city or town throughout the country such as the Tripoli Regional Bank and the Al-Koms Regional Bank. These banks' activities were specifically for those areas which involve each of them. Their capitals were small and their contributions in economic development small as well, because their aim was just provision of banking services, especially for people who resided outside big cities. In 2005, these banks reached 48 banks that were under the supervision of the Central Bank of Libya with coordination of the Regional Banking Institution which established to be a coordinated between the Regional banks and the Central Bank of Libya, other commercial banks, state institutions and foreign banks. The total of their capitals are LYD52.100 million in accordance with the statistic of 2005 (Central Bank of Libya 2006).

#### **2.4.3 Libyan Foreign Bank**

The establishment of the Libyan Foreign Bank was in accordance with *the Law No.18 of 1972* as a Libyan joint-stock company with a capital of LYD10.000 million which is fully owned by the Central Bank of Libya. At the end of 1972, its capital increased to LYD20.000 million, in accordance with *the Law No.66 of 1972*. In 2005 and after several increases in its capital became LYD1,024.000 million to be able effectively to contribute in the development of the Libyan economy. To achieve this aim its purpose focused particularly on foreign financial transactions such as facilitating the banking services for exporters and importers in Libya or outside Libya. The Libyan Foreign Bank was shareholder in many foreign banks that work worldwide such as in Egypt, Jordan, and France. Its assets in 2005 reached LYD14,956.800 million (US\$11,405.300 million) in accordance with the statistics of central bank of Libya (Central Bank of Libya 2006).

#### **2.4.4 Specialised Banks**

These banks specialize in one type of activity other than that usually furnished by commercial banks. According to *the Banking Law No.1 of 2005* (cited in Central Bank

of Libya 2007), “A specialized bank whose main purpose is to finance and grant credit for specific activities, and whose basic activities do not include the acceptance of demand deposits, shall not be considered a commercial bank”. In accordance with this law and for these purposes, Libya has four specialized banks that can be presented briefly as follows:

#### **2.4.4.1 Agriculture Bank**

The Agriculture bank is the oldest specialized bank in Libya that established in 1955 and had started its activities in 1957 with a capital of LYD1.000 million under the name of the National Agriculture Bank. It reorganized in accordance with *the Law No.133 of 1970* to finance and develop the Libya agricultural activities with providing short and long-term loans for the Libyan farmers and activities that promoted the agricultural sector to contribute in the development of the Libyan economy. The Agriculture Bank’s capital increased several times and the last one was according to the decision of *the General Peoples’ Committee No.105 of 2002* which made increase in its capital to LYD450.000 million (Central Bank of Libya 2006). Also, it has 45 branches that focus on the provision of credit for the Libyan farmers that reached LYD712.700 million in 2005 to improve the agricultural products.

#### **2.4.4.2 Saving and Investment Real Estate Bank**

This bank established by the secretariat of *the General People’s Congress in accordance with Law No.2 in 1981* with a capital of LYD100.000 million to finance real estate activities (Saving & Investment Real Estate Bank 2007). This law states that this bank should promote the process of the real estate building to encourage the Libyan people for real estate saving and provide them with the real estate loans for having suitable houses. The Saving and Investment Real Estate Bank’s branches are 27 to provide the real estate loans with amount of LYD1,951.000 million until 2005. These loans come out according to several increases in its capital until it reached LYD1100 million in accordance with the decision of *the General Peoples’ Committee No.105 of 2002* (Central Bank of Libya 2006, p. 60).

#### **2.4.4.3 Development Bank**

The Development Bank is one of the Libyan specialized banks, which was established to enhance the industrial sector for the increase of production. It started its activities in 1981 in accordance with *the Law No.8* with a capital of LYD100.000 million as a Libyan joint-stock company that fully owned by the Libyan society. This capital has become in 2005 LYD628.800 million to be able to finance the industrial projects

throughout the country. For example, it is allowed to establish manufacturing industries and to develop or extend those that have been established earlier to increase their industrial ability as well as to provide individuals and firms with short and long-term loans (Central Bank of Libya 2006). These loans increased from 21 loans in 1981 with amount of LYD592.700 thousands in 1981 to 5053 loans with amount of LYD20,721.900 thousands in 2005. This clearly indicates the importance of this bank in the development of the Libyan economy. Its assets in 2005 reached LYD1,646.000 million in accordance with its balance sheet of 2005 (Development Bank 2006).

#### **2.4.4.4 Rural Bank**

In accordance with the decision of the General Peoples' Committee No.12 of 2002, the Rural Bank established with a capital of LYD100.000 million that fully owned by the General Peoples' Committee of Finance (Central Bank of Libya 2006). The purpose of the establishment of this bank was to promote the development in both industrial and services sectors that were in rural areas by encouraging people in these areas to contribute in the development process. In other words this bank aimed to improve the per capita income for those who are still in need and especially are resided in rural towns with providing them with loans for small businesses. According to its policy, these loans can start from LYD5.000 hundred to LYD10.000 thousand in accordance with the project that has been presented by the client to the rural bank. The Rural Bank has provided until 2005 about 40138 loans with sum total of LYD134.400 million, 27389 of them were for individuals with sum up of LYD80.100 million, 11312 loans were for family business firms with sum up of 45.7 million and 1437 loans for unemployment with sum up of 8.6 million (Central Bank of Libya 2006, p. 66).

Overall in Libyan banking system, it is worth noting that this system has not any kind of Islamic banking, especially with the fact that most of Libyans if not all are Muslims (Ahmad and Gao 2004, p. 366). Islamic banking is one of the most rapidly growing segments in global financial services in both Muslim and non-Muslim countries. Clearly, as Islamic products and services enter North Africa and Middle East markets, an important consideration is the reason beyond their non-practicing in the Libyan financial system. Even though the Libyan banking continued under state-controlled from 1970 to 1993 without any private banks, the Libyan government did not make any attempt to establish Islamic financial institution and there is no published information that can give some reasons for that. However, from the experience of the author who worked for many years in one of Libyan commercial banks, it is worth noting that many

Libyan customers were refusing to deal with commercial banks because they deal with interest that forbidden by Islamic law. In addition, they asked frequently for Islamic products and services to be side-by-side with conventional ones. Therefore, there is no doubt that many of Libyan people keep their money far away from the current Libyan banking system and this negatively affects the role of financial investment in the Libyan economic overall development. In contrast, establishing of Islamic banks will gather most of these funds in accordance with *Sharia* (Islamic law) and to contribute effectively in the Libyan economic development. Furthermore, Islamic banks in Libya will create banking competition with conventional ones that will improve their services and products to make efficient contribution in enhancing the performance of the Libyan banking system as a whole.

## **2.5 Evaluation of the Libyan Banking System**

### **2.5.1 The Internal Assessment**

The Libyan banking system in its present structure is considered a product of several transformations that happened during the last decades. This indicated in the move from a banking system that was driven by foreign banks towards a system that was completely Libyan and dominated by state-owned banks. In particular, the period that was before 1970s witnessed foreign domination for the banking system in Libya. *The Banking Law No.153 of 1970* passed for nationalizing all banks that became state banks (Central Bank of Libya 2006). With this law the Libyan banking system started new era that continued until producing *the Banking Law No.1 of 1993*. In this period the Libyan banking system was just state banks that were government-controlled, specifically most of Libyan banks' capitals were owned by the Central Bank of Libya which had direct controls on credit and interest rates. These controls in accordance with the opinion of the International Monetary Fund's experts were inefficient and made monetary policy increasingly ineffective in influencing the Libyan macroeconomic goals (International Monetary Fund 2005). In addition, the absence of the private and foreign banks in that period led to the lack of the banking competitiveness that would encourage banks for better performance.

Even though *the Banking Law No.1 of 1993* allowed the establishment of the private banks, and some of the private banks that still in their beginning stages established, the Libyan banking system remained largely state controlled. For example, the Central Bank of Libya's interest rate structure with a range of unchanged and low ceilings on lending rates decreased banks' ability to price in risk and discourages their lending

activity (International Monetary Fund 2005). That was why the International Monetary Fund's experts recommended that further easing interest rate controls and banks reorganization, currency and credit is important for the reform of the existing banking system. Furthermore, this position of the Libyan banking system continued even after producing *the Law No.5 of 1997* regarding the encouragement of the foreign capital investment such as foreign banks to enter and work inside Libya (Central Bank of Libya 2007). This because there is no one can invest in Libya as a private institution with this position of the Libyan banking system, especially with the risk of the international sanctions which were dictated on Libya during the period from 1993 to 2003.

In 2003 and after the lifting the international sanctions Libyan government has decided to undertake comprehensive reforms towards a market economy, and the Libyan banking sector was one of the significant sectors for reorganization (International Monetary Fund 2006a). As a result, *Law No.7 of 2003* regarding the amendment of *the Law No.5 of 1997*, regarding the encouragement of the foreign capital investment and *the Banking Law No.1 of 2005* regarding banks reorganization have been passed for the open door policy by Libyan government (Central Bank of Libya 2007). Therefore, in accordance with these laws there was some progress in liberalizing the Libyan banking system which was introduced in recent years. For instance, unifying the exchange rate, opening the banking sector to domestic and foreign competition and privatizing some state banks are introduced (International Monetary Fund 2006b).

Particularly, Central Bank of Libya has given permissions for several foreign banks to open branches for them in Libya and they started their activities in Libya. These banks include the Societe Generale Bank, the BNP PARIBAS Bank, the HSBC Bank and the BIAT Bank. Also, on bank privatization, the Central Bank of Libya has pre-qualified 6 foreign banks for the privatization of the Sahara Bank namely Arab Bank, Arab Banking Corporation, BNP Paribas, HSBC, Socilete General Bank and Standard Chartered. In addition to this the Central Bank of Libya's shares in the capital of the Wahada Bank has been sold to the Social and Economic Development Fund in accordance with *the resolution No.3 of 2007* of the board of directors of the Central Bank of Libya (Central Bank of Libya 2007).

Undoubtedly, these recent steps of reform would enhance the performance of the Libyan banks to be able to face the competition of the foreign banks that already have effective experience and services. However, reform implementation remains in need of the coordination between the Central bank of Libya and Ministry of Finance, specially

with the absence of an overall reform strategy (International Monetary Fund 2006b). Thus, the International Monetary Fund's experts have advice that the Libyan government should enhance the role of the Central Bank of Libya and implement market-based monetary reforms, complete price liberalization and rationalize the subsidy system and develop a vigorous and coherent privatization program (International Monetary Fund 2006b). As it has seen above, the Libyan banking system is still in the initial stages of development towards global market economy.

### **2.5.2 Libyan Banking System versus other Arabic Banking Systems**

It is useful to compare the Libyan banking system with the banking systems of other developing countries that have same cultural and financial characteristics such as North Africa's countries and Middle East countries. For example, Egypt is an African country which has developing economy, developing banking system with Islamic religion and Arabic culture. This can be a comparative case to evaluate the Libyan banking system. Even though the two banking systems have been affected by several transformations such as the move from foreign-controlled to domestic-controlled and the move towards open market economy, the Egyptian banking system moved to the market economy in 1970s when the Libyan banking system just started to be national-controlled (Mohieldin and Nasr 2007). This means that the Egyptian government started the reform of its banking system three decades before Libyan government that is just started in 2003 as stated above. In addition, although there is no foreign banks in Libya until recent years, there were many foreign banks from Arabic and non-Arabic countries in the Egyptian banking system for decades ago (Central Bank of Egypt 2003). Also, despite the fact that there was no Islamic banks in Libya, 8 Islamic banks were established in Egypt many years ago to offer banking services in accordance with the Islamic *Sharia* (Islamic Law)(Institute of Islamic Banking and Insurance 2007).

The Middle East countries such as Saudi Arabia, Kuwait and the United Arab Emirates are oil exporting countries. This means all these countries have large surpluses revenue that can be invested effectively in efficient banking systems. Therefore, it is useful to compare the banking sector's assets of Libya with the Middle East countries to show the differences between them in banking investment. According to the Central Bank of Libya (cited in International Monetary Fund 2006b), the Libyan banking sector assets were US\$17,592.500 million in 2002. However, in the same year banking sector's assets for Saudi Arabia, the United Arab and Kuwait were US\$134,000.000 million, US\$62,000.000 million and US\$54,000.000 millions respectively (Al-Muharrami,

Matthews and Khabari 2006). Clearly, this indicates that the Libyan banking sector's assets is the smallest one compared with other Middle East countries.

Furthermore, all of their banking systems have many foreign and Islamic banks compared with Libyan banking system. For instance, Saudi Arabia has 10 Islamic banks, United Arab has 9 Islamic banks and Kuwait has 5 Islamic banks (Institute of Islamic Banking and Insurance 2007).

## **2.6 Concluding Remarks**

In this chapter, as it has been shown that the Libyan economy as a developing economy has been affected by petroleum revenue during the last four decades since the beginning of 1960s. Also, the nationalization and the development plans that have been made by the new government in the beginning of 1970s have a positive impact on the development of the Libyan economy. However, the stopping of the development plans during the period from 1986 to 2000 has a negative effect on the development of the Libyan economy especially with largely government-controlled. Regarding Libyan finance system, it is still a small system that has been controlled by driven economy especially with the fact that the Libyan finance system was suffering from the lack of the securities exchange for several decades. The Libyan banking system was affected by the absence of the securities exchange as well and the domination of the Central Bank of Libya which had direct controls on credit and interest rates. In addition, it is worth noting in the Libyan banking context that the lack of Islamic banks can have negative impacts on the role of financial investment in Libya.

In contrast, the recent stages that have been made by Libyan government to move towards the market economy and opening the door for foreign investments represent the first step for more development in Libyan banking system specifically and the Libyan economy as a whole. To conclude, the Libyan banking system is still in need of structural reforms to reach at least the development of other Arabic banking systems that work in the same cultural and economic environment. For instance, establishing Islamic banks that have practised Islamic methods of finance in other countries in accordance with Islamic *Sharia* can be an important attempt to improve the banking services and products.

## CHAPTER 3: ISLAMIC METHODS OF FINANCE

### 3.1 Introduction

Islam potentially governs the moral as well as the socio-economic and political affairs of a society. In particular, the financial system is one economic aspect that is governed by Islam. It follows that Islamic finance is based mainly, upon the Islamic value system. This link between Islamic values and finance could be inferred from the rules and injunctions incorporated in *Sharia* (or Islamic law). The aim of this chapter is to discuss the framework and concepts of Islamic finance theoretically. The chapter is divided into eight sections as follows. Section 2 offers a definition of Islamic finance. Section 3 highlights the historical background of Islamic finance. Section 4 outlines the principles of Islamic finance. Some misconceptions about Islamic finance are outlined in Section 5. The Islamic methods of finance themselves are presented in Section 6, while section 7 briefly focuses on Islamic banking. The chapter ends with some concluding remarks.

### 3.2 Definition of Islamic Finance

Islamic finance is a financial scheme that is practiced in Muslim countries. This system has been principally implemented to comply with the main tenets of *Sharia*. According to most Islamic jurists and scholars, the main sources of Islamic *Sharia* are the *Holy Quran*, *Hadith*, *Sunna*, *Ijma*, *Qiyas* and *Ijtihad*. The *Holy Quran* is the book of revelation made to the Prophet Muhammad, *Hadith* is the narrative relating deeds and sayings of Muhammad, *Sunna* refer to the habitual practice and behaviour of Muhammad during his life, *Ijma* is a consensus among religion scholars about specific issues that is not envisaged in the *Holy Quran* and the *Sunna*.

*Qiyas* means using deduction by analogy to provide opinion on a case (not referred to in the *Quran* and the *Sunna*) in comparison with another case referred to in the *Quran* and the *Sunna* and; *Ijtihad* represents jurists' independent reasoning relating to the applicability of certain *Sharia* rules on cases not mentioned in either the *Quran* or *Sunna*. Many studies introduced how Islamic finance using a large number of definitions, ranging from a simple meaning in Islamic banking to a complex one combining all Muslim financial operations. However, some scholars connect Islamic finance with the principles of Islamic law in just one definition. For example, Warde's (2000, p. 5) definition is as follows "Islamic financial institutions are those that are based, in their objectives and operations, on Quran's principles (principles of the Muslims' holy book)". This means, Islamic financial firms are not just Islamic banks, but they include other capital formation and all types of financial intermediation that use

the principles of *Sharia* in their operations. The *Sharia* has to adjust all aspects of Muslims' lives with equity and a complete moral system. According to Iqbal (1997), while the prevailing Western financial system focus on the capitalistic features of economic and financial processes, Islamic finance aims to make actual moral and equitable distribution in resources and social fairness to all societies.

### **3.3 Historical and Religious Background**

The development processes of Islamic finance commenced at the beginning of the seventh century when Muhammad received revelations from *Allah* (the God in Islam). In particular, Moor (1997, p.3) considers the date as 613 AD when Muhammad was forty years of age. The doctrine of financial operations during Muhammad's era was derived from *The Holy Quran* and the *Sunna* (tradition) of Muhammad. Since that time, Islamic *Sharia* (*Quran* and *Sunna*) coordinated all financial transactions between people, including sales, purchases and borrowings. It underlines using financial tools in an equitable way that provides financial balance between people. Islamic *Sharia* also prohibits *Riba* (usury or interest) and *Garar* (ambiguous sales) which are discussed in detail in the next section, though it does encourage people to obtain profit and making money in their business activities (El-Qorchi 2005). In fact, there was a continuing process of mutual adjustment between *Sharia* and the actual financial practices of Muslim societies during and after Muhammad's life.

In Muhammad's era, most Islamic methods of finance applied by Muslims in their business with others. As Kahf and Khan (1993) have pointed; Muhammad was the first to use the *Mudarabah* (a silent partnership) in trade with a rich woman named Khadijah who latter became his wife. Muslims used to practice *Musharakah* (full partnership) to administrate big commercial enterprises with a profit/loss sharing principle. In addition, Muhammad made it permissible for people to use sale on credit (*bai salam*) which was to finance consumption or production without usury and he encouraged Muslims to give benevolent loans (*Quard Hassan*) (Kahf and Khan 1993). At that time, the ongoing Islamisation of Arabic countries meant that teachings of the *Sharia law* spread rapidly to make both Muslims and non-Muslims know about these methods of finance.

After the death of Muhammad, a great expansion of Islam occurred throughout the Arabic states and in large parts of the non-Arab world. The Islamic state in its "golden age" was dominant in three continents, Asia, Africa and Europe. According to Moor (1997) the Islamisation of economic systems during the four centuries following the Muhammad's death (632 AD) reached Morocco and Spain in the west, to India and

China in the east, central Asia in the north and Africa in the south. The extension of Islamic tools of finance was indicated by available historical contracts registered between businessmen such as *Mudarabah* and *Musharakah* in several countries. These practices of Islamic finance went on until the beginning of the nineteenth century when the political and economic impacts of Western ascendancy occurred in the Islamic world in the form of the banking industry, especially in Arabic countries (Warde 2000).

In the nineteenth century, most Muslim countries fell under the control of the colonial powers who effectively divided the Islamic world into many small states. The capital system at that time appeared as a substitute to the Islamic economy. Anwar (1995 cited in Moore 1997, p. 6) has pointed out that in the mid-nineteenth century, almost all Muslim areas fell to the colonial powers of the West and thus the existing financial scheme which complied with *Sharia* was effectively replaced by capitalist system. From that period until the second half of the twentieth century the Muslim economies were dominated by tradition of the Western European economy (Moore 1997). A common aspect was that all financial institutions established by the colonial government dealt with usury and interest. For instance, commercial banks, insurance companies and all types of intermediary firms employed conventional methods of finance. However, Islamic methods of finance often practised between individual Muslims.

With the independence of the many Arabic countries from the Western colonial powers in the second half of the twentieth century, many Islamic economies also became more independent. As a result, Muslim economists started reconsidering towards applications of Islamic methods of finance into a formal banking industry. Iqbal and Molyneux (2005) suggest the first attempt to establish an Islamic bank was mad in 1971 when the Egyptian government established the Nasser Social Bank. This bank provided Islamic financial products such as interest-free loans to poor people, scholarships to students and credits to small business firms on a profit/loss sharing basis. Following this, the establishment of Islamic banks increased rapidly throughout the world in both Muslim and non-Muslim countries. El Qorchi (2005, p.1) concludes Islamic financial firms worldwide were over three hundred during last thirty years in more than seventy-five countries. These institutions generally conform to the principles of *Sharia* in their financial process.

### **3.4 The Principles of Islamic Finance**

The Islamic finance system is controlled by the Islamic *Sharia*, meaning the legal framework of Islam and its Quranic interpretation and the teachings of *Sunna*. This

framework provides guidelines for people to follow the principles of the *Holy Quran* and the *Sunna* in decision making in all aspects of life. Financial transactions are one of the important dealings that are controlled by *Sharia* to make a more equitable distribution of income and wealth and increased equity participation in the economy by all Muslims in society. Islamic *Sharia* has many principles that represent significant religious orders to people who wish to comply with it in their financial dealings.

The principles of Islamic finance have been extensively studied by many Muslim and non-Muslin scholars and all agree about the prohibition of *Riba* in Islamic methods of Finance (Wilson 2006; Metwally 2006; Iqbal and Molyneux 2005; Siddiqi 2004; Akacem and Gilliam 2002; Zaher and Hassan 2001; Lewis and Algaoud 2001; Al-Jarhi and Iqbal 2001; Warde 2000; El-Gamal 2000; Dar and Presley 1999; Dumale and Sapcanin 1999; Abdul-Gafoor 1999; Moore 1997; Iqbal 1997; Haron 1995; Kahf and Khan 1993; Metwally 1993). The principles of Islamic finance enshrined from The *Holy Quran* and the prophetic *Sunna* are simple and can be summed up as follows:

### **3.4.1 The Prohibition of *Riba* (Usury or Interest)**

Many finance specialists have introduced the concept of *Riba* in many ways such as Al-Jarhi and Iqbal (2001) and Siddiqi (2004) observed that *Riba* is an Arabic word which means any increase or growth in a loan that must be paid by the debtor to the lender regardless if the increase is small or large. Also, Metwally (2006, p. 17) defines it as follows: “Usury is translated to mean *Riba* which literally means an excess or addition above the principle amount lent. Since interest, however small, is an excess over the capital lent”. Interestingly *Riba* (usury or interest) has also been condemned by many religions before the establishment of Islam. According to Iqbal and Molyneux (2005) for example Judaism also, forbid interest in transactions between Jews, though they could charge interest to non-Jesus.

While Christianity displayed a doctrine that allowed lending freely, the Church regarded interest as a permissible tool in western society. It is generally argued that the prohibition of *Riba* (usury or interest, large or small) is the most important principle of Islamic finance. Any interest or predetermined payment over and above the actual amount of principle is strongly prohibited by the *Holy Quran* and the *Sunna*. Metwally (2006, p.16-17) translates some evidence from the *Holy Quran* and the *Sunna* as follows:

Those who devour usury will not stand except as stands one whom The Evil One by his touch hath driven to madness. That is because they say: Trade is like usury. But Allah hath permitted trade and forbidden usury (2: 275).

O Ye who believe! Fear Allah and give up what remains of your demand for usury, if Ye are indeed believers. If Ye do it not, take notice of war from Allah and His Apostle. But if Ye turn back, Ye shall have your capital sums: Deal not unjustly and Ye shall not be dealt with unjustly (2: 278-279).

The Prophet has condemned both the receiver and the giver of usury. It is claimed that the prophet said: Sell not gold for gold except in equal quantity, nor sell silver for silver except in equal quantity, nor sell anything present, for that which is absent.

In this tradition, gold and silver were used as money in Muhammad's era when usury on these materials was forbidden. In addition, El-Gamal (2000, p. 3) translates another *Hadith* (message) from the *Sunna* that:

Muslim narrated on the authority of Abou Said Al-Khudriy: Bilal visited the Messenger of Allah with some high quality dates, and the prophet inquired about their source. Bilal explained that he traded two volumes of lower quality dates for one volume of higher quality. The Messenger of Allah said: "this is precisely *Riba*! Do not do this. Instead, sell the first type of dates, and use the proceeds to buy the other.

According to the *Sharia* and consensus of all scholars, it is very clear from the above that *Riba* is strictly forbidden.

Even though there are no specific verses in the *Quran* or messages from *Sunna* providing reasons for the forbidding of *Riba*, some scholars present a number of reasons for its prohibition inferred from the *Holy Quran*. See, for instance, (Moore 1997; Siddiqi 2004; Iqbal and Molyneux 2005). Moore (1997) observed that *Riba* contradicts the principles of profit/loss sharing which aim to create a balance between the lender and the borrower. In addition *Riba* is not been able to respond to the effect of inflation in the economy, because it represents a fixed amount of usury or interest. Siddiqi (2004) has given more reasons for prohibition of *Riba* with evidence inferred from a number of verses of the *Holy Quran*. First of all, *Riba* is a form of social corruption referred to as *Fasad* by Arabic scholars. Siddiqi (2004, p. 42) extracted and translated this reason from verse (30: 38-41) of the *Holy Quran*:

That which you give in usury in order that it may increase in other people's property has no increase with Allah; but that which you give in charity, seeking Allah's countenance, has increase manifold. Allah is He Who created you and then sustained you, then causes you to die, then gives life for you again. Is there any of your (so called) partners (of Allah) that does aught of that? Praised and exalted be He above what they associate with him. Corruption does appear on land and sea because of (the evil) which men's hands have done, that He may

make them taste a part of that which they have done, in order that they may return.

As discussed; giving or taking usury could be related to the appearance of the corruption, which in the society results from men's wicked behaviours on the earth. Secondly, *Riba* implies wrong appropriation of other people's property, without any justification. In other words, usury or interest is a property right claimed outside the lawful frame work of identified property rights that create a balance between rich and poor people. In Islam, people who affect the property rights of others will face punishment from Allah at the day of the judgment. The *Holy Quran* indicates in its fourth chapter (4: 161 cited in Siddiqi 2004, p. 36) "And of their taking usury when they were forbidden it, and of their devouring people's wealth by false pretences. We have prepared for those of them who disbelieve a painful doom".

Thirdly, *Riba* decreases the resources of states through a negative effect on the growth of economies. The *Holy Quran* says "Allah has blighted usury and made almsgiving fruitful. Allah loves not the impious and guilty"(2: 276 cited in Siddiqi 2004, p. 36). This verse suggests that the decreasing of usury or interest creates fairness to those who give *Riba*. Consequently, over time this decrease impacts on the growth of the economy. On the other hand, a better way to create positive growth in the economy is giving to charities or providing interest-free loans to indebted people.

Fourthly, *Riba* demeans and diminishes human personality. Siddiqi (2004, 2: 275, p. 43) inferred this meaning from a clear picture that Allah indicates that impact of usury on those who receive or pay it as who is affected by the touch of the Evil. They become mad greedy and wealthy because they need to obtain more and more interest and usury without stopping. The fifth reason is that *Riba* leads to making money from money which is not acceptable in Islamic finance. Money is an exchange instrument that has no value in itself to create increase in the wealth of people more and more. Those who used to put their money as a deposit in a bank or lent it to someone else to gain interest, they earn money without doing any efforts or bear any risk. According to *Sharia*, people should be productive and useful to economic development by investing their money in trade or economic enterprises. Siddiqi (2004) takes up this point, noting that trade is acceptable by all religions and human societies. To conclude, the final and most essential reason for prohibition of *Riba* is that it is unfair that it affects borrowers and lenders as well. Iqbal and Molyneux (2005) emphasize the injustice of *Riba* to the borrower who uses money of the lender and achieves loss and he/she must pay interest

and principle as well. In addition, *Riba* is also unjust to the lender. This is because the real rate of interest may become negative if the rate of inflation is higher than rate of interest. Therefore, lenders who want to earn profit by giving money could make a loss.

### 3.4.2 The Prohibition of *Gharar*

The second significant prohibition variously defined by many scholars is *Gharar*. Specifying, *Gharar* is translated as risk, hazard and uncertainty. Al-Dareer (1997, p. 10) cites *Gharar* as jurisprudential terms under three headings:

First, *Gharar* applies exclusively to cases of doubtfulness or uncertainty, as in the case of not knowing whether something will take place or not. The definition by Ibn Abidin is a case in point: *Gharar* is uncertainty over the existence of the subject matter of sale. A second view holds that *Gharar* applies only to the unknown, to the exclusion of the doubtful. This view is adopted by the Zahiri School. Thus, according to Ibn Hazm, *Gharar* in sales occurs when the purchaser does not know what he has bought and the seller does not know what he has sold. The third view is a combination of the above two categories; *Gharar* here covers both of the unknown and the doubtful, as exemplified by the definition proposed by Al-Sarakhsy who states that *Gharar* obtains where consequences are concealed. This is the view favoured by most scholars.

El-Gamal (2000, p. 7) has observed that Al-Zarqa defines it as “*Gharar* is the sale of probable items whose existence or characteristics are not certain, due to the risky nature which makes the trade similar to gambling”. Al-Saati (2003) adds that there is no agreement among Muslim jurists about the degree of uncertainty in commercial transactions to be considered *Gharar*. Iqbal and Molyneux (2005, p. 14) have pointed out “*Gharar* refers to acts and conditions in exchange contracts, the full implications of which are not clearly known to the parties. This is something very similar to asymmetric information”. Metwally (2006) reports that *Gharar* is a speculative transaction that is harmful to society.

*Gharar* is a difficult case to specify its existence in exchange contracts that have many types of transactions, but there is a consensus among some authors including (Metwally 2006; Iqbal and Molyneux 2005; Al-Saati 2003; El-Gamal 2000) about some categories that indicate its aspects which could be summed up as follows: *Gharar* can be any contract of sales and purchases that include uncertainty in genus, species, quantity of the object, price, time of payment in deferred sales, existence of object, and identity of object. Although there is no explicit statement in the *Quran* forbidding *Gharar*, there is no doubt that *Gharar* is forbidden through the agreement of nearly all Muslim researchers. For example, Al-Saati (2003, p. 7) has inferred the prohibition of *Gharar* from two Quranic verses (2: 188; 4: 29) as follows: “And do not eat up your property

among yourselves for vanities, nor use it as bait for the judges”. “O ye Who believe! Eat not up your property among yourselves in vanities; but let these be amongst you traffic and trade by mutual good will”. In addition, he adds that there is a consensus between some scholars about the meaning of (*Al-batil*) vanity which is *Gharar*. However, there are many *Hadiths* (traditions) banning *Gharar* sales that are narrated by Muslims. For instance, “Ahmad and Ibn Majah narrated on the authority of Abu-said Al-khudriy: Muhammad has forbidden the purchase of the unborn animal in its mother’s womb, the sale of the milk in the udder without measurement, the purchase of spoils of war prior to their distribution, the purchase of charities prior to their receipt, and the purchase of the catch of a diver” (El-Gamal 2000, p. 7). Also, Metwally (2006, p. 15) writes that the Muhammad said “One who imports from outside and sells at the market rate for his maintenance is blessed, while he who withholds transactions in view of estimated dearness in future, is thrown away from God’s pleasure”.

### **3.4.3 The Prohibition of *Maysir***

*Maysir* is regarded by most Islamic finance scholars as gambling or any games of chance. Games of chance and gambling include the idea of wishing to obtain high return with deliberate risk-taking, and potentially include lotteries, casino games and betting on outcome of races (Al-Saati 2003). Both games of chance and gambling are banned by Islamic *Sharia* and the consensus of many Muslim jurists. Iqbal and Molyneux (2005, p. 15) provide evidence from the *Al-Quran* in its fifth chapter (5:90) as follows: “O, you who believe! Intoxicants (all kinds of alcoholic drinks), and gambling, and *Al-Ansab* (animals that are sacrificed in the name of idols on their altars) and *Al-Azlam* (arrows thrown for seeking luck or decision) are an abomination of Satan’s handiwork. So avoid that (abomination) in order that you may be successful”.

Further, Metwally (2006, p. 15) observes that “*The Holy Quran* says (chapter 2, verse 219); they question thee about alcoholic drinks and games of chance (speculation). Say: in this is great sin and some utility for men; but its sin is greater than its usefulness”. Even though, there is consensus among true believers who believe in the tenets of *Sharia* and do not question the reason for forbidding the *Maysir*, some scholars such as, Iqbal and Molyneux (2005) try to give reasons that are behind prohibition of games of chance and gambling. Because of the high risk that is available just in these types of transactions, some people win a large amount of money, but others suffer from a loss of their money, and sometimes they face bankruptcy. This could lead to greater financial

and social problems. In addition, these games and gambling are unnecessary for society because they cannot add any surplus for the national wealth.

#### **3.4.4 The Prohibition of Using or Dealing in Certain Forbidden Commodities**

Islamic finance system encourages people to invest their money, but this encouragement should comply with the rules set by the *Sharia*. According to doctrine, there are some commodities such as alcoholic products, drugs, and pork that are forbidden in Islam. Thus, people should not use or exchange these items that are banned by the *Holy Quran* above. Lewis and Algaoud (2001) point out that people, individuals and institutions cannot trade and finance enterprises that include or deal in forbidden items. The aim of *Sharia* in this regard is to promote ethical investments that do not affect people and society adversely.

#### **3.4.5 Share Profits and Risks in the Business**

Islamic finance encourages people to invest their money effectively without any injustice for those who are lenders or borrowers. According to this principle, lenders should share with borrowers the profits or losses from their enterprise. It means they should equally distribute the risk of their business consistent with their sharing as a percentage in capital of a specific enterprise. Kahf and Khan (1993) explain this principle in two parts comprising the Profit Sharing Principle (PSP) and the Profit/Loss Sharing Principle (PLSP). According to PSP, both the owner of the capital and the entrepreneur share in the profit of enterprise referred to *Mudarabah* by Islamic finance scholars. In this method of finance, the owner of funds submits his capital to an entrepreneur who presents his experience and effort as a working partner. They only share profit, but in the case of loss, the owner bears all risks of loss and the entrepreneur losses just his or her time and effort. PLSP is a full partnership in capital and management, as well as in the profit and loss, at a particular enterprise. For instance, *Musarakah* (full partnership) in Islamic finance allows partners to share specific percentages of capital in their working partnership and profit/loss that is earned from this enterprise according to the same percentage of sharing.

#### **3.4.6 Payment and Collection of *Zakah***

Ahmed (2004) defines *Zakah* as “a due right on specific items of assets or properties, in specific percentages with considerations of the passage of a year and satisfaction of the condition of *nisab*”. *Nisab* is the minimum amount of assets that is *zakatable* according to the *Sharia* that considers *Zakah* as one of the five pillars of Islam mentioned by the

*Holy Quran* many times side-by-side with the prayer pillar. Metwally (2006, p. 14) provides a comprehensive definition as follows:

“*Zakah* is the cornerstone of the financial structure in an Islamic economy. It is one of the fundamental tenets of Islam. Literally, *Zakah* means purification. Technically it means a contribution of a proportion of wealth for the use of the poor and needy as sanctification for the remainder of the property. Hence, in modern terminology, *Zakah* is a tax collected from the relatively richer Muslims and distributed (mainly) among the poorer Muslims”.

The *Holy Quran* says in many chapters to “keep up prayer and pay *Zakah*” (Metwally 2006, p. 14). Sometimes, *Zakah* is mentioned as a *Sadqa* (charity or alms) by the verses of the *Holy Quran*. For instance, “alms are for the poor, and the needy, and those employed to administer the funds, and those whose hearts have been reconciled to truth, and those in debt and those in the cause of Allah, and the Wayfarer” (9: 60 cited in Metwally 2006, p. 14). This verse indicates all types of categories of the heads to whom *Zakah* could be paid. Even though there is no doubt in Islamic teaching that Allah created people that are equal, they live in income inequality which means many individuals are not be able to obtain enough money to meet their needs. Paying *Zakah* represents a financial way to support those who suffer from poverty or those who become debtors without having the ability to pay their debts.

Clearly, Islam also makes it mandatory for the rich to support the poor and needy. The *Holy Quran* says: “And those in whose wealth there is a recognized right, for the beggar who asks and for the unlucky who has lost his wealth” (70: 24-25 cited in Ahmed 2004, p. 21). Interestingly, the amount of *Zakah* should not also deplete the resources of the rich. Although, there are no specific verses from the *Holy Quran* that observe amount of the *zakah*, Muhammad indicates many ratios on different assets. For example, for all idle assets like gold, silver and all types of money, 2.5 percent should be imposed according to most Muslim scholars (Metwally 2006). Also, in Ahmad’s (2004) definition this percentage is payable annually. This effective approach could achieve many goals at the same time that have important social and economic objectives such as poverty, crime and the creation social and economic equity. However, to achieve these goals efficiently, the collection and distribution of *Zakah* require special administration that provides a good management for funds which proceed from *Zakah*. As Peerzade (2005) claims that funds of *Zakah* that are paid by people should be transferred to the public use for specific spending. The implication is that the government should institutionalize *Zakah* to ensure that there is no poverty.

### **3.4.7 Takaful (Islamic Insurance)**

In recent years, the commercial insurance industry has become one of the most widespread financial industries globally. Individuals and firms use this industry to reduce financial risks. However, there are many Muslim jurists who argue that the commercial insurance involves *Gharar*, and thus is prohibited. According to El-Gamal (2000), this point of view arises because contracts of commercial insurance have quite a substantial *Gharar* that affects the outcome of an insurance contract. In simple words, the insurance contract represents a sale contract and its amount of insurance which may be collected by insurer, is unknown. Accordingly, the value of the insured amount is dependent on the future result of the insurance company's judgment. It is unknown result that leads to the forbidden *Gharar*. Many Muslim countries and some countries that have majority of Muslims are practicing Islamic insurance conforming to Islamic *Sharia*. Islamic insurance or *Takaful* is a mutual help between those who wish to support each other, especially in difficult times. At any time unfortunate life events include financial hardship, societal tribulations and death; these events generally require financial assistance. El-Gamal (2000) introduces Islamic insurance as an idea as a cooperative insurance that could be establishing a pool of funds by specific group of people who do not aim to obtain profit from this pool, but may invest its funds in permissible activities in Islam to increase its wealth. It provides the members with particular financial help in specific events.

Muslim scholars derived *Takaful* from the *Holy Quran* that says: "Help you one another in righteousness and piety, but help you not one another in sin and rancour" (5: 2 cited in Billah (2001b, p. 4) and as well, Billah (2001a, p. 2) has inferred this validity and permissibility of *Takaful* Insurance by citing these two traditions from the *Sunna* as following:

Narrated by Anas bin Malik, the Holy prophet told a Bedouin Arab who left his camel untied trusting to the will of Allah said: Tie the camel first and then leave it to Allah".

"Narrated by Abn Huraira, the Holy prophet said: whosoever removes a worldly hardship from a believer, Allah will remove from him one of the hardships of the day of the judgment. Whosoever alleviates from one, Allah will alleviate his lot in this world and the next.

Moreover, Maysami and Williams (2006) confirm that *Takaful* Insurance is a permissible tool which complies with the principle of joint guarantee in the *Sharia* which encourages mutual help. However, this Islamic insurance should be for helping policyholders not for earning profits, although using the funds of this insurance in permissible activities by Islam to increase its wealth is acceptable. Consequently,

Islamic insurance institutions have established in Muslim and non-Muslim countries to offer its services for those who could be in need of financial assistance. Metwally (2006) has observed that the *Takaful* funds could be administrated by Islamic bank which collects *Takaful* insurance premiums, provide financial assistances for policyholders and invests these funds in permissible enterprises according to the wish of participants and in compliance with *Sharia*.

### **3.5 Misconceptions about Islamic Finance**

The Islamic finance system was established according to principles inferred from the *Holy Quran* and the *Sunna*. Islamic finance becomes known worldwide and has been practiced in Muslim and non-Muslim countries. Islamic finance is an interest-free scheme that provides freedom for people to enter into trade transactions which must be free from *Riba* and *Gharar* with equity of profit loss sharing. Even though the previous facts about Islamic finance have been discussed, there are some misconceptions that could be held among those who have not enough knowledge about Islamic finance. These misconceptions and the Islamic response to each of them may be summarized as follows:

#### **3.5.1 Islamic Finance is Communist in Nature**

Communist financial systems are organized according to the principles of communism. In this case, Moore (1997) indicates that the debate among some economists is about the requirements of the relationship between the lender and the borrower in Islamic lending contracts, such as, some information about how funds are being used that demand using more hallmarks. They consider that is an additional cost for financial system and could be exploitation of labour by principle in a communist or planned economy. To clarify this misunderstanding, Abdul Mannan (cited in Moore 1997, p. 24) disagrees:

Islam does not recognise the exploitation of labour by capital, nor does it approve of the elimination of the business class and the establishment of the classless society. Islam recognises the diversity of capacities and talents resulting in the diversity in earnings and material reward. It does not approve of dead-level equality in the distribution of wealth, as that would defeat the very purpose of diversity.

Clearly, as it has seen in the above quotation, Islamic finance differs from a communist one in many aspects. In addition, there is an agreement among Muslim and Western scholars about the financial equity deal that exists in those contracts between the owner of the capital and the business borrower who invests this capital.

### **3.5.2 Unfair Islamic Lending**

It is argued how financial equity can be achieved among lenders and borrowers according to interest-free lending. In simple words, how the lender protects his loan from the impact of the time value of money or inflation. In fact, this is logical argument that has been discussed by many researchers. According to El-Gamal (2000) there are two types of lending in Islamic finance, lending for need and lending for business. The first is a charitable contract whose charitable contribution involves the time value of money. In addition it encourages lender to lend his money as benevolent loan (*Quard Hassan*) that will be rewarded increasingly by Allah. As Kahf and Khan (1993) cites Anas' narration of Muhammad's words:

The night I was taken up to Heaven, I saw written on the Heaven's gate 'Charity is (multiplied) ten times and a loan is (multiplied) eighteen times'. I said 'O Jibril why is a loan better than a charity? He said "because a beggar (may) ask while he has (wealth) and a borrower would not ask for a loan except out of need.

The second type of lending for business that takes another form of financing in Islam is referred to as *Mudarabah*. In the *Mudarabah* contract both the lender and the borrower are affected by the time value of money or the inflation in their project's profit/loss sharing that is one of equitable methods of finance in Islam. This is explained in the next section.

### **3.5.3 Without Interest there will be no Investment**

The supporters of this common misconception believe that Islamic finance is a non productive system, because the prohibition of the interest which is significant factor in creating profit by investment operations. However, as Siddiqi (2004) argues the absence of *Riba* (interest, usury) dose not affect economic activities that include any financial transactions, thus Islamic finance potentially could be replaced by a conventional interest based system. Furthermore, Dar and Presley (1999) cite many Western scholars that blame interest rates for many problems in the modern economic and financial systems. Clearly, Islamic finance has many types of investment transactions that are more profitable than receiving interest. For instance, Islamic investment accounts, deposits and profit/loss sharing methods of finance potentially promise larger profits to both borrowers and lenders.

### **3.5.4 Innovation and Development**

Some economists (Moore 1997) argue in Islamic finance there is no innovation and development, because Islamic finance operations are just ancient contracts that were

adopted by the financial system in the seventh century. In contrast, the supporters of Islamic finance refute this idea about innovation and development of this system. For example, Moore (1997) disagrees, in that Islamic banks in recent years have all other banks' operations except that which is unpermitted by Islam. In addition, Siddiqi (2004) has observed that Islamic banking offers most modern financial products such as credit cards according to Islamic finance principles. Moreover, Ghannadian and Goswami (2004) suggest that Islamic banking is an expeditious method for economic growth in developing countries.

### **3.6 Islamic Methods of Finance**

As discussed in the previous section, Islamic finance is designed according to fundamental principles that comply with Islamic *Sharia*. The most significant of these principles is the prohibition of *Riba* and *Gharar*: the profit/loss sharing between people or people and firms as a financial equity method. The avoidance of *Riba* and *Gharar* is the cornerstone of the Islamic finance techniques. Theoretically, there are many types of Islamic methods of finance that link agricultural activities, industrial activities and trade activities. However, this study focuses on the common Islamic methods of business transactions that are known and practised by Islamic banking and other Islamic institutions and which research shows comply with *Sharia*. These Islamic instruments take the following form: *Mudarabah*, *Musharakah*, *Murabaha*, *Bai Muajjall*, *Bai Salam*, *Istisna*, *Ijarah* and *Quard Hassan*. The definitions and mechanisms surrounding each type are discussed below:

#### **3.6.1 *Mudarabah***

*Mudarabah* (capital trust) is one form of profit/loss sharing (equity based) method used by tradesmen in Mecca before Islam; The best evidence for its existence was when Muhammad employed *Mudarabah* with a rich woman named Khadijah about fifteen years prior to the establishment of Islam (Abdul Gafoor (2006). *Mudaraba*, in jurisprudence, is "...a mode of financing through which the bank (the owner of the capital or *rabb-al-mal*) provides capital finance for a specific venture indicated by the customer (entrepreneur or *mudarib*)" (Obaidullah 2005, p. 57). In other words, *Mudarabah* is a contract between two parties: an investor (businessman or bank) who provides a second party, the entrepreneur, with financial resources to finance a particular enterprise. Profits are shared between the two parties (*rabb-al-mal* and *mudarib*) according to a pre-agreed ratio, but if there are losses the investor bears all financial losses and the entrepreneur only loses his/her effort and his/her time as shown

in Figure 3.1. This distribution of profits and losses is an equitable approach that conforms to Islamic principles.

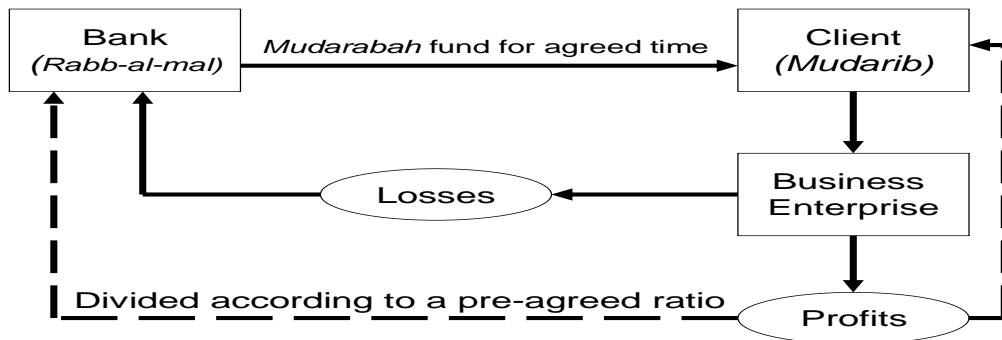


Figure 3.1: Bank Finances *Mudarabah* for Client

In another way, *rabb-al-mal* could be a customer who deposits his capital in a bank which represents the *mudarib*, to invest this capital according to the rules of *Mudarabah*. In addition, Aljarhi and Iqbal (2001) suggest that *Mudarabah* deposits could be compounded in a public pool for investment, which is a permissible way for the manager (bank) to mix all *Mudarabah* deposits with its own funds. In this case profits would be distributed according to an agreed percentage, but losses once again remain the liability of the capital providers as shown in Figure 3.2. Although *Mudarabah* may be applied in various economic activities, the majority of Islamic jurists and scholars hold the view that *Mudarabah* contracts are more suitable for commercial activities. Other activities such as agricultural activities are generally complex and need further research and thorough analysis.

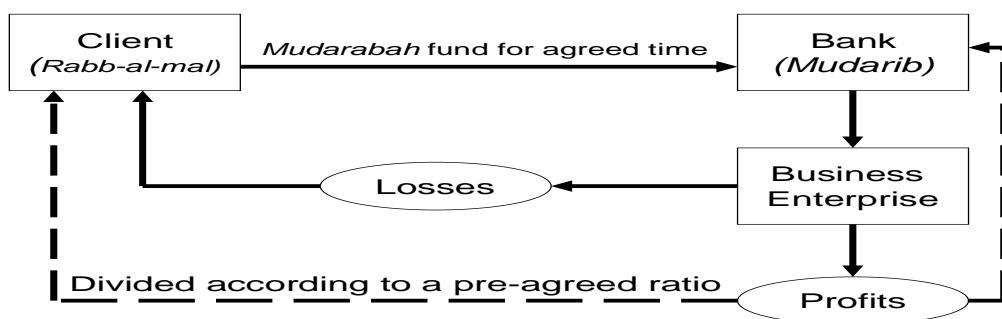


Figure 3.2: Client Finances *Mudarabah* for Bank

### 3.6.2 *Musharakah*

*Musharakah* (full partnership) is the second way of the profit/loss sharing method found in an Islamic finance. *Musharakah* as a financial contract is defined as "...an arrangement where two or more parties establish a joint commercial enterprise and all

contribute capital as well as labour and management as a general rule" (Iqbal and Molyneux 2005, p. 20). Profits and losses that proceed from *Musharakah* are shared among its parties as per a pre-agreed ratio. *Musharakah* financing is again an equitable partnership contract that is applied and well known worldwide by individuals and firms. Furthermore, *Musharakah* is well suited for financing private or public companies and in project financing for short, medium and long term periods. In the context of Islamic banking, *Musharakah* is described as a joint venture between an Islamic bank and a customer or business firm for certain operations. An Islamic bank could be a provider to a finance industry, trade and almost all other legal enterprises through equity or direct participation.

Lewis and Algaoud (2001) claim that *Musharakah* contracts may be established in two ways. The first way is a permanent contract which ensures for its parties (investor, bank and entrepreneur) an equitable sharing in profit/loss annually as per a pre-agreed ratio. This kind of contract (permanent contract) is constant for unlimited period according to their agreement as shown in Figure 3.3.

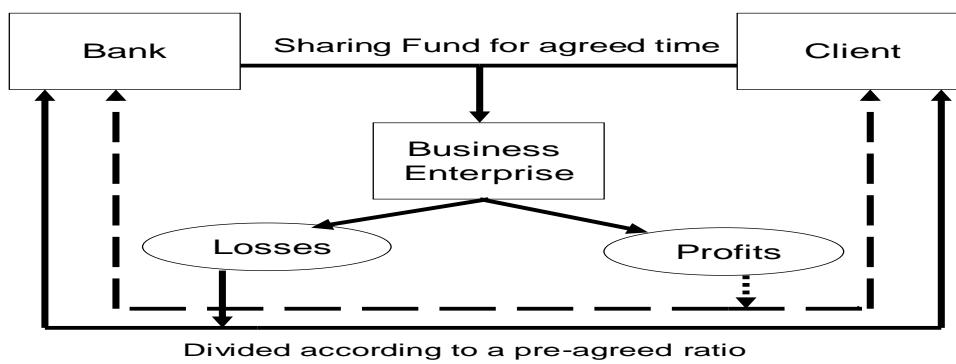


Figure .3.3: *Musharakah* Between Bank and Client

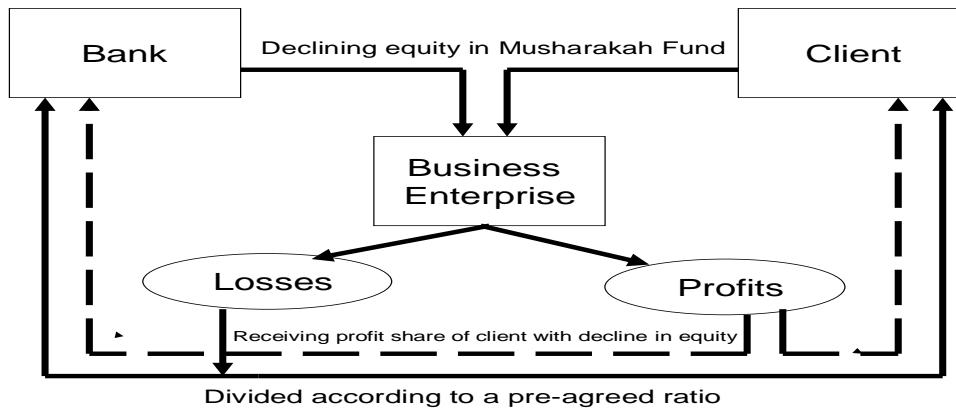


Figure 3.4: Declining *Musharakah* Between Bank and Client

The second type of *Musharakah* is a diminishing contract that is more preferred by bankers, because it allows the bank to reduce its share equity each year and receives periodic profits based on its reduced equity. Whereas, the share of the customer in the capital of enterprise increases over time until he becomes the complete owner to this enterprise as shown in Figure 3.4.

As mentioned above in Figure 3.4 *Musharakah* have many advantages that provide equal benefits for all parties and there is a consensus among Islamic scholars about many of these characteristics. However, El-Gamal (2000) has observed that most of the parties in the *Musharakah* contracts usually require the help of the legal experts and their services to avoid any *Riba or Gharar*.

### **3.6.3 *Murabaha* (Mark-up on Sale)**

*Murabaha* is an Islamic instrument for buying and reselling purchases or imports of capital goods and other commodities by institutions, including banks and firms. Under the *Murabaha* contract, a customer provides the bank with the specifications and prices of the goods that would be purchased or imported. An Islamic bank studies the application and collects information about the specifications and prices of the goods focusing on the price and conditions for payment. When the bank and its client agree on the terms of the deal (purchase or import), the bank purchases the goods or commodities and resells them to the customer. The profit that accrues to the bank is mutually agreed upon as a profit margin (mark-up) on the cost of purchase (Mettwally 2006). In many cases, the bank is able to obtain the same terms from a different vendor and would gain a discount which is a profitable for customers using this method. According to many scholars (Obaidullah 2005; Iqbal and Molyneux 2005; Lewis and Algaoud 2001; El-Gamal 2000; Kahf (1997), there are certain fundamental principles attached to *Murabaha* which could be summed up as follows: Goods must be classified and clearly identified according to commonly accepted standards and must exist at the time of sale; goods for the sale must be in the ownership of the bank at the time of sale; the purchase's cost price must be known at the time of sale and it should be declared to the client, especially when the bank succeeds in obtaining a discount, thus, the profit margin is calculated on the net purchase price, which means the discount represents a benefit for the client; and the time of delivery of goods and the time of the payment must be specified.

In fact, the *Murabaha* contract is just a two-party buying and selling contract between a bank and a customer with no financial intermediation or financing. In other words, the

bank offers this service to the clients who should pay the goods' price plus the profit margin to the bank immediately after receiving the purchases or imports. In addition, the client could pay the value of goods and the bank's profit by deferred instalments or deferred lump sum without increase over the original value and this contract is named as *Bai Muajjall-Murabbah* or *Bai Bithaman Ajjal* which is used by Islamic banking worldwide (Obaidullah 2005).

#### **3.6.4 *Bai Muajjall* (Deferred Payment)**

The term *Bai Muajjall* is the sale on a deferred payment basis that allows business or individuals to receive products now and pay for their value in the future. Lewis and Algaoud (2001) consider that credit for a sale could include *Bai Muajjall-Murabaha* since all deferred payments are in instalments or in a lump sum. However, there is a significant difference between *Bai Muajjall* and *Bai Muajjall-Murabaha* in that in any kind of *Murabaha*. A buyer must know the price of the commodity as a requirement to acceptable contract (Obaidullah 2005). There is a consensus among Islamic jurists and scholars about permissibility of a credit sale (*Bai Muajjall*) as a form of finance that has no *Riba*. El-Gamal (2000) points out Islamic jurists over many centuries have permitted sales where the price increased for deferment, but have forbidden sales where the amount of a debt increased for deferment. For example, in a credit sale the buyer and seller agree to defer the sale price of US\$100 that is payable for one month and total increase the sale price to US\$110. However, their agreement is not permitted if they defer the lending of US\$100 that proceed from the sale now for one month and increase the amount by interest to US\$110. The first example is a trading transaction adopted by the *Holy Quran* and the *Sunna*, but the second example is a lending transaction involving *Riba*.

#### **3.6.5 *Bai Salam* (Prepaid Purchase)**

*Bai Salam* is a form of advance payment or forward buying defined by Iqbal and Molyneux (2005, p. 25) as follows: “*Salam* is a sale contract in which the price is paid in advance at the time of contracting against delivery of the purchased goods/services at a specified future date”. Even though the sale and purchase of nonexistent goods are prohibited according to *Gharar*, the *Bai Salam* is a permissible activity that is adopted by the *Sunna* to facilitate certain activities in agriculture and industry. As an example, El-Gamal (2000, p. 17) cites the following *Hadith* that was narrated on the authority of Ibn Abbas:

The Messenger of Allah came to *Madinah* and found its inhabitants entering *Salam* contracts (with the price paid in advance) in fruits for one, two, and three years. He said: Whoever enters into a *Salam* contract let him specify a known volume or weight, and a known term of deferment.

In addition, the Messenger of Allah said: “Whoever enters into *Salaf*, should stipulate a determined weight and measurement, and a determined date of delivery”, the word (*Salaf*) of the *Hadith* has meaning of *Salam* (cited in Al-Masri (2003, p. 29). Clearly, as it has been seen above there are some legal requirements for *Bai Salam* contract to be permissible that are adopted by most scholars and could be summed up as follows: The commodities sold should not be available at the time of contracting; the quality and quantity of goods must be known; the date and place of delivery for these commodities should be defined; and the purchase cost price should be paid completely at the time of the contract.

### **3.6.6 *Istisna* (Manufacturing)**

*Istisna* is a new method in modern Islamic banking that is defined as a contract in the manufacturing industry which allows flexibility to one party to obtain industrial goods by an upfront cash payment and deferred delivery or a deferred payment and deferred delivery. It has been translated by El-Gamal (2000, p.17) as “commission to manufacture” which is used as the work progresses in manufacturing and building. This method has a significant advantage that is the cost price is prepaid or is deferred as instalments to create a product which is at a lower price than the cost of buying the complete product or building. In the context of Islamic banking, individuals or firms could request their bank to facilitate a contract of producing something, and thus the bank concludes *Istisna* contract with third party who is the manufacturer that produces and delivers specific items under particular requirements (Lewis and Algaoud 2001). The permissibility of *Istisna* is adopted by the use of analogy (Qyas) among most of Muslim jurists with the permissibility of *Bai Salam* (El-Gamal 2000). However, *Istisna* differs in many ways from *Bai Salam*, *Istisna*’s subject is a commodity or item which needs manufacturing, the payment in *Istisna* could be a lump sum or instalments and could be deferred as well and; the time of delivery in an *Istisna* contract could be unknown (Iqbal and Molyneux 2005).

### **3.6.7 *Ijarah* (Lease Financing)**

In English *Ijarah* means exactly reward or recompense that proceeds from the rental contract between two parties, the lessor (owner of the asset) leases capital asset to the lessee (in need of the asset). *Ijarah* literally means “to give something on rent” (Lewis

and Algaoud 2001). The use of *Ijarah* was known before Islam and is adopted in Islam as evidenced by the *Holy Quran* and the *Sunna*. For example, (28: 26-27 cited in El-Gamal 2000, p. 13)

...Said one of them: O father, hire him on wages, for truly the best to employ is a strong and trust worthy man. He said: I intend to wed one of my daughters to you, on condition that you work for me for eight years, and if you complete ten full years, that will be a grace from you.

It is also adopted by the following *Hadith* narrated by Ahmad Abu Dawud and Al-Nasai:

The farmers during the time of the Prophet used to pay rent for the land in water and seeds. He forbade them from doing that, and ordered them to use gold and silver (money) to pay the rent (cited in El-Gamal 2000, p. 13).

In Islamic finance, there are two forms of leasing: (1) direct leasing finance (*Ijarah*), whereby a lessor (individuals or firms) allows a lessee to use capital assets owned by the lessor for a specified period of time ranging between a few days, months and years depending on the type of asset. In return the lessee pays a rental fee monthly or annually according to a pre-agreed amount. However, the ownership of the capital assets cannot transfer to the lessee in this type of leasing and the insurance on the capital assets is the responsibility of the lessor (Zaher and Hassan 2001). In Islamic banking, *Ijarah* has been adapted to the modern needs to be as following in point (2) Hire-purchase (*Ijarah wa-Iqtina*), whereby an institution or individual customer could request the bank to purchase equipment with the intention of leasing it to the customer. In turn, the Islamic bank rents the asset to the client who pays a certain fixed rent and promises to purchase the asset within a specified period to transfer its ownership from the bank to the customer (Al-Jarhi and Iqbal 2001). Furthermore, this mode of leasing could be transformed as a decreased leasing method that allows the client to pay every specific period an instalment of the value of the asset plus its rent to reduce this value until he/she become completely the owner of this asset (Metwally 2006).

### **3.6.8 *Quard Hassan* (Benevolent Loans)**

The act of lending money is not forbidden in Islamic *Sharia* only *Riba* is prohibited on these processes of lending. *Quard Hassan* is a benevolent loan without any interest that was adopted in Islam to assist the needy and to attempt to alleviate hardships. Consequently, individuals and firms may lend money on an interest free basis to a number of beneficiaries and in many cases such as education, marriage and other social purposes. The amount paid by the lender is considered an interest free loan from the time of payment until the date of the settlement. Metwally (2006) and Lewis and

Algaoud (2001) add the borrower's payment of any amount over and above the loan to the lender is permissible according to his discretion. Furthermore, asking for an asset as collateral and charging administrative expenses by the lender is a permissible matter that ensures the lender taking or receiving his money (Obaidullah 2005). Although, Islamic banks worldwide have offered these loans in recent decades, benevolent loans are known for many decades ago among Muslims and non-Muslim alike.

### **3.7 Islamic Banking**

Islamic banking which is interest-free banking, is a relatively new phenomenon that has only been practised during the previous three decades that have witnessed the rapid expansion in Muslim and non-Muslim countries worldwide. The establishment of Islamic banks has been by both private and government initiative. The literature that has focused on Islamic banking is growing fast in several languages and by many scholars who study most of Islamic banking issues. To begin with, many researchers define or describe Islamic bank to indicate its main characteristics. As one example, Al-Jarhi and Iqbal (2001, p. 23) cite the following exhaustive description for an Islamic bank:

An Islamic bank is a deposit-taking banking institution whose scope of activities includes all currently known banking activities, excluding borrowing and lending on the basis of interest. On the liabilities side, it mobilizes funds on the basis of *Mudarabah* contract. It can also accept demand deposits which are treated as interest-free loans from the clients to the bank, and which are guaranteed. On the assets side, it advances funds on a profit-and-loss sharing or a debt-creating basis, in accordance with the principles of the *Sharia*. It plays the role of an investment manager for the owners of time deposits, usually called investment deposits. In addition, equity holding as well as commodity and asset trading constitute an integral part of Islamic banking operations. An Islamic bank shares its net earnings with its depositors in a way that depends on the size and date-to-maturity of each deposit. Depositors must be informed beforehand of the formula used for sharing the net earning with the bank.

Clearly, Islamic banking system can only be operational under two fundamental principles: namely the prohibition of interest and the introduction of profit and loss sharing methods and other types of finance explained in the previous section and the conforming to the sources of Islamic *Sharia*. Islamic banking could never have reached its present form without many attempts and trial and error over the time.

#### **3.7.1 A Brief History**

Even though Muslims were able to establish a finance system without interest since the time of the prophet Muhammad, the first Islamic social bank as a private idea was established in the 1950s in Pakistan with emphasises on social objectives to help farmers. In Malaysia, Muslims established a pilgrimage fund that was for helping those

who desire to deposit their savings for travelling for a pilgrimage trip to *Makkah* for the worship of Allah. The Mit Ghamer savings bank in Egypt was established in 1963 and the Nasser Social Bank in 1971 (Lewis and Algaoud 2001). The governmental establishment of Islamic banking started in the middle of the 1970s when the Islamic Development Bank (IDB) was established by Saudi Arabia in 1975. The IDB was established as an international financial institution that is suggested by the conference of finance ministers of Islamic countries held in Jeddah, Saudi Arabia in 1973 (Iqbal and Molyneux 2005). Islamic banks have been spread and practised worldwide during the final decades of the last century. Currently, there are more than 200 Islamic banks and financial institutions operating worldwide with over US\$ 200 billion in assets (Wilson 2002, p. 373). In fact, the number of Islamic banks' establishment has increased on average of approximately 15% a year (cited in Taylor 2003, p. 400).

### **3.7.2 Objectives of Islamic Banks**

In general, the main objective of Islamic banks is to promote the economic development of the society by mobilizing and utilizing the financial resources in accordance with Islamic *Sharia* principles. However, there are many sub-objectives that have discussed by several scholars. Haron (1995) has observed that most of these sub-objectives that can be summarized in five points as follows: To provide contemporary Islamic financial services to people and protecting them from the financial deal that involved forbidden *Riba*; to develop banking services and products based on Islamic *Sharia* principles; to create acceptable yields that are legitimate profits to the shareholders and investors deposits; to achieve moral consciousness side by side with their profitable transactions; and to serve Muslims and non-Muslims by benevolent lending to promote the fraternal bonds between them.

### **3.7.3 Types of Islamic Banks**

Although classifying Islamic banks could be according to their ownership types of such state owned, jointly owned and privately owned banks, the acceptable classifying among literature of Islamic banking is that in accordance to their objectives. Thus, labelling Islamic banking by their objectives, four types of banks can be identified as follows:

#### **3.7.3.1 Islamic Social Banks**

The main feature of a social Islamic bank is its emphasis on social objectives that embrace the mobilization of savings between people. This is considered more important than an increase profits. This kind of bank offers other social services such as the

collecting of *Zakah* in fund accounts to assist the poor in the society. In addition, presenting interest-free loans for social purposes to solve some difficulties that face people in their lives is one of an Islamic social bank's duties. For example, Mit Ghamer savings bank was used to promote saving habits among Egyptian peasants.

### **3.7.3.2 Islamic Development Banks**

The main purpose of an Islamic development bank is to enhance and promote social and economic development in a state. It can be as an institution that aims to finance development projects of many countries such as providing loans for public sector projects and programmes. The idea of establishing development bank was started in Saudi Arabia by creating the Islamic Development Bank (IDB). The institution aimed to foster economic development, social progress and economic relations of member countries and Muslim communities in conformity with the principles of *Sharia*.

### **3.7.3.3 Islamic Commercial Banks**

An Islamic commercial bank is defined as a financial institution that accepts deposits from depositors and makes them available to entrepreneurs on mark-up or the profit/loss sharing methods of finance. In this situation, the Islamic bank may indulge in all types of commercial activities and may invest directly in several sectors in the economy. For example, most modern Islamic banks are commercial banks that offer various types of deposits accounts and many types of financing instruments presented in the previous section.

### **3.7.3.4 Islamic Holding Banks**

An Islamic holding bank is a holding institution that established for international objectives to assist the Islamic banks in identifying investment opportunities in the international market and to introduce international financial institutions to the Islamic financial markets, particularly for financing projects in the Islamic states. As an example for these types of banks, there are three groups of holding banks at present: the Islamic Banking System International (IBS), Dar al-mal al Islami Trust (DMI) and Al-Baraka Group.

## **3.7.4 Islamic Banking Operations**

Islamic banking operations are developed over the time as the operations of conventional banks to meet individuals and firms needs under the principles of Islamic *Sharia*. Islamic banks depend on shareholders' capital as well as various types of deposits that come from depositors and investors. The sources of Islamic banks and

their uses of these funds have been studied by many researchers, particularly (Abdul-Gafoor 2003; Alam 2000; Haron 1995). They indicate Islamic banking operations which are currently practiced in some categorizations that could be summed as follows:

#### **3.7.4.1 Deposit Accounts**

These deposits represent the major source of funds in the Islamic banks and there are three types Islamic banks' deposit accounts that are:

##### **3.7.4.1.1 Current Accounts**

Islamic current accounts provide a service presented mainly to Islamic banks depositors to process bank transfers and pay cheques drawn on them through the normal national and international known systems. These accounts are payable on demand and no interest or profit is received on such accounts. In addition, current accounts can be in foreign currency that facilitates the foreign trade.

##### **3.7.4.1.2 Saving Accounts**

Like conventional banks, Islamic banks offer to their customers these accounts that have flexibility for depositing and withdrawing on demand and guarantee of the capital to save their money but unlike the conventional banks, they do not pay interest over these saving accounts. However, depositors can obtain benefits from these accounts as voluntary prizes from the bank such as air tickets or cars that depend on the value of deposit and the annual profits of the bank. Also, Islamic banks can offer there services to those who have these saving accounts free as an advantage for their deposits.

##### **3.7.4.1.3 Investment Accounts**

Investment deposit accounts are designed for those who want such facilities for investment purposes under profit/loss sharing agreement. In practice, there are two main types of investment accounts, specified and unspecified. In the first category a depositor empowers the Islamic bank to invest his fund in a conditional or limited investment which means in a specific enterprise or sector. In the second category, a depositor gives the bank an unconditional authorisation to invest the deposited sum according to the wish of the bank in any project. Usually, investment accounts in general are administrated under the principles of *Mudarabah* and *Musharakah* that make the bank as an entrepreneur (*mudarib*) or a participant and the depositor as an investor or a participant. Within this context, they share the profits and the losses according to a pre-agreed ratio.

### **3.7.4.2 Methods of Financing (Use of Funds)**

In the Islamic banking system the issue of using offered funds is rather more complicated. Unlike conventional banks money does not earn money without collaboration between capital and effort. Therefore, Islamic bank can not act as an institution that is a financial intermediary accepts deposits from the public and lend them to the borrowers who are individuals or firms. However, according to the principles of Islamic finance there are many financing or participating instruments vary to suit the financial needs in the market and to provide short, medium and long term funds. These are *Mudarabah*, *Musharakah*, *Murabaha*, *Bai Muajjall*, *Bai Salam*, *Istisna*, *Ijarah* and *Quard Hassan* that have explained in detail in the previous section.

### **3.7.4.3 Services**

Beside the previous operations Islamic banks offers several services include performance bonds letter of guarantee, letters of credit, travellers' cheques, money transfer, foreign exchange transactions and safe deposits. In these situations, the Islamic bank could collect a service fee corresponding to the exact expenses incurred by the bank on the services rendered. However, the Islamic bank can charge a commission when the transactions involves sale and purchase of metals like gold on behalf a customer, because the bank in this case represents an agent which is permitted by the *Sharia* to do that.

## **3.7.5 Contributions of Islamic Banking**

The last three decades have witnessed a wide practice of Islamic banking industry in Muslim and non Muslim countries. The rise and practice of Islamic banks adds three significant contributions to the current banking traditions. These innovations could be summarized from what is written by Kahf (1999) as follows:

### **3.7.5.1 Relations with Depositors**

Even though the relationship between conventional banks and depositors depends on a lending base that estimates the interest as the cost of money for many decades, this relationship has been changed by practicing of Islamic banks worldwide. Islamic banks reveal new relationship which is based on a partnership type of cooperation. It allows bankers and depositors to share their investment enterprise and its returns under mutual confidence. This profit sharing method creates a performance motive within the plans of banks to attract funds to their projects more than giving overnight change interests.

### **3.7.5.2 Closing the Financing Gap**

As it is known financial market is completely independent in conventional finance system that is financing real market without integration. This means there is a gape between financial and real markets which are independent. However, according to this fact Islamic banking system offers many operations that integrate financial transactions with the real goods market as a new contribution in banking industry. For instance, Islamic banks can finance the establishment of new productive projects, purchase and resale producing goods and lease of productive machinery.

### **3.7.5.3 Ethics and Banking**

The relation between ethics and Islamic finance is found in the comprehensive nature of Islam incorporating the financial transactions with worships in accordance to *Sharia*. Islamic banks differ from conventional banks that are known worldwide for a long time as bankers that deal with money not with ethical values, in other words, their cornerstone is that business is business under any situation. Islamic banks are bankers that are governed by Islamic *Sharia* which focused on moral financial practices. It permitted the financing of useful activities and prohibited harmful ones such as gambling and drugs.

## **3.8 Concluding Remarks**

In this chapter, it has been shown that Islamic finance is a financial system that is in accordance to principles of Islamic *Sharia*, and the six sources of Islamic *Sharia* based on *Holy Quran*, *Hadith*, *Sunna*, *Ijma*, *Qiyas* and *Ijtihad*. The principles of Islamic finance are inferred from Islamic *Sharia* to provide guidelines to people in their financial transactions. The most significant of these principles is the prohibition of *Riba* and *Gharar* which underpin commercial activities, also using the profit/loss sharing between people or people and firms as a financial equity method side by side to other Islamic methods of finance.

There are many types of Islamic methods of finance that linked to different economic activities, but what have been discussed in this chapter are those which are common in theory and practice especially in Islamic banks as institutions. These methods are, *Mudarabah*, *Musharakah*, *Murabaha*, *Bai Muajjall*, *Bai Salam*, *Istisna*, *Ijarah* and *Quard*. To conclude, Islamic banking theory is primarily based on the prohibition of interest and the introduction of profit/loss sharing schemes and other accepted methods of finance as well as offering banks' operations such as deposit accounts and so on. Currently Islamic banks consist of social banks, development banks, commercial banks

and holding banks. These Islamic banks introduce a new contractual relationship between depositors and bankers. In addition, net profits are distributed among the depositors and shareholders while losses are shared according to each party's contribution.

To conclude, this chapter's discussion related to Islamic methods of finance represents the corner stone to build the rest of this study for specific three reasons. Firstly, this chapter provides an overview and background for the researcher to understand and organize the literature review process regarding the main issue in this thesis which covers the attitudes towards Islamic methods of finance by individuals, firms and banks. Secondly, motivating factors to use Islamic methods of finance are selected and determined in accordance with critical understanding for Islamic finance in general. Finally, the discussion about the nature of these new methods of financing enhances the research methodology to use specific theory, variables and statistical techniques to predict Libyan attitudes towards potential use of Islamic methods of finance.

## CHAPTER 4: LITERATURE REVIEW

### 4.1 Introduction:

The primary aim of this thesis is to determine Libyan attitudes towards potential use of Islamic methods of finance. In particular, identifying and measuring the linkage between factors such as awareness of Islamic methods of finance, demographic and socioeconomic variables, motivating factors and relative importance of motivating factors and Libyan attitudes towards Islamic methods of finance. Accordingly, the purpose of this chapter is to provide a review of literature related to these issues focusing on three main areas. First is the review of previous research on retail consumers' attitudes towards Islamic methods of finance. Second is the review of past research concerning both large, small public and private business firms' attitudes towards Islamic methods of finance. Finally, this chapter refers to research related to financial institutions' attitudes towards the probability of applying Islamic methods of finance.

The chapter is structured as follows Section 2 discusses the literature on individual customers' attitudes towards Islamic banks. The literature on business firms' attitudes towards Islamic banks is reviewed in Section 3. The discussion in Section 4 presents the literature on financial institutions' attitudes toward Islamic methods of finance. Some concluding remarks are made in Section 5.

### 4.2 Retail Consumers' Attitudes towards Islamic Banking:

An abundant literature on individual customers' attitudes towards conventional methods of finance is evident, especially concerning bank selection criteria and customers' satisfaction towards conventional banks. Although, this section focuses on individual customers' attitudes towards Islamic banks, it can be useful to present some brief examples from the conventional banking industry.

Bank selection criteria have been studied in many different countries with similar and dissimilar methodologies. For instance, (Kaynak and Whiteley 1999; Martenson 1985; Riggall 1980; Anderson, Cox and Fulcher 1976) observed that the convenience of the location of the bank was a primary motivation for customers to select a specific bank. Furthermore, convenience motivation could be factor as location or other factors such as service quality (Wel and Nor 2003; Lee and Marlowe 2003). In contrast, (Almossawi 2001; Kennington, Hill and Rakowska 1996; Boyd, Leonard and White 1994; Yavas 1988) argued that the bank's reputation was the most significant factor in the selection

of the banks' services by customers. Likewise, profitability such as low service charges and high interest rates represent major reasons why customers chose commercial banks (Ta and Har 2000; Owusu-Frimpong 1999). Kaynak and Harcar (2005) found these findings held for national bank customers. In addition, a fast and efficient service respectively was an attractive element for local customers, as concluded by Kaynak and Harcar (2005) and Kaynak and Kucukemiroglu (1992). With the advanced information technology that facilitates banking services for clients, Gerrard and Cunningham (2001) illustrated that the most important criterion for bank selection was feeling secure. Otherwise, staff friendliness was considered as the primary reason for commercial bank selection in Turkey by Kaynak, Kucukemiroglu and Yavas (1991). However, when bank selection criteria was related to professional conventional banks, Devlin (2002) showed that professional advice was the significant motivation for the choice of home loan institutions by UK customers. Clearly, there are several differences in the choice of the bank including, socio-demographic factors, education level, influence of friends and relatives and advanced information technology.

In recent decades, conventional banks have witnessed increasing competition to attract customers' attention to use their services and products. Consequently, the satisfaction of customers towards banking services has become an important issue for both bank managers and academic scholars. There are many studies that have analysed the relationship between customers' satisfaction and commercial banks' services. However, there is a consensus among many researchers (Jamal and Naser 2002; Levesque and McDougal 1996; Taylor and Baker 1994; Anderson and Sullivan 1993; Oliver 1993; Cronin and Taylor 1992; Bitner 1990; Woodside, Frey and Daly 1989; Kim, Farragher and Guithues 1979) that bank service quality is a primary motivator in improving customers' satisfaction. Moreover, Moutinho and Smith (2000) have studied bank customers' satisfaction according to human and automated banking and found that consistent, efficient service delivery was significant for customers' satisfaction than the way of the offer bank services. On the other hand, Al-Hawari and Ward (2006) indicated that customer satisfaction is an important fact in the relationship between automated service quality and financial performance. Also, high level of customer satisfaction impacts positively on the loyalty of customer towards bank services (Pont and McQuilken 2005).

In contrast, the literature on Islamic banks in the area of customers' satisfaction is relatively new. Table 4.1 at the end of this section is designed to indicate previous

literature that was written about individual customers' attitudes towards Islamic banking. This summary of literature review is used to infer the differences and the similarities as well as interesting facts among the main findings of the previous studies.

The first study that discussed individual customers' attitudes towards Islamic banks was by Erol and El-Bdour (1989), their study examined Jordanian customers of Islamic and conventional banks and used a self-administered questionnaire to ascertain the attitudes, behaviour and patronage factors of bank customers towards Islamic banks. The main finding of this study was that factors such as a fast and efficient service, the bank's reputation and image, and confidentiality respectively, were primary bank selection criteria for Jordanian customers. This means, there was no importance for religious reason as a factor for bank selection. In addition, profitability elements were the availability of credit with lower interest charge, higher interest payments on savings accounts and a low cost of banking services, which allowed customers to earn a favourable income. Further, Jordanian bank customers were aware of Islamic banking methods from their relatives and neighbours who played a significant part in their high level of knowledge. Jordanians also indicate that there is no significance for opening new Islamic banking branches in Jordan to create extra use of Islamic methods of finance.

A more recent study by Erol, Kaynak, and El-Bdour (1990) used the same methodology in their study, but with a different technique to examine patronage behaviour of Jordanian customers. There was agreement between the two studies about the awareness of Jordanian customers with sufficient information about Islamic methods of finance and Islamic banks. This study also confirmed that a fast and efficient service, the bank's reputation and image, and the confidentiality of the bank were significant factors in the choice of an Islamic bank. They added that Islamic banks' patronisers varied significantly from conventional banks' patronisers in their bank pricing policies which included their profitable motivations for the use of banking services. Finally, they found that there was no effect at all for religious motivations in the use of Islamic banks' services by Jordanian customers.

Omer (1992) surveyed three hundred Muslims in the United Kingdom to show their selected patronage factors and awareness towards Islamic finance methods which were applied in UK as attempt to serve Muslims by conventional financial institutions. The main finding for this study was that a high level of ignorance existent among UK Muslims about Islamic finance principles. This suggests that the awareness of Islamic

banking method differs between Muslims according to the country of residence. Two researchers Erol and El-Bdour (1989) and Erol, Kaynak and El-Bdour (1990), also showed that Muslims who lived predominantly in a Muslim country have greater awareness about Islamic bank services than Muslims elsewhere. However, UK Muslims generally unaware about Islamic methods of finance given a lower level of education, a religious motivation was a significant factor for them for the use of Islamic banks' services. Moreover, they displayed strong preference for Islamic methods of finance over conventional techniques, in contrast to Jordanian customers.

Even though the previous literature was focused on Muslims' attitudes towards Islamic methods of finance only in the UK and Jordan, Haron, Ahmad and Planisek (1994) discussed in their study the bank patronage factors of Muslim and non-Muslim customers in Malaysia. Likewise, Erol and El-Bdour (1989) and Erol, Kaynak and El-Bdour (1990) in a factor analysis they found that religious motivations were not the primary reason for Muslims dealing with Islamic banks in Malaysia. They added in their main findings two new observations. First, there was no significant difference between Malaysian Muslims and non-Muslims in their attitudes towards a bank's selection criteria. Second, is the provision of fast, high quality bank services represented the most significant selected factors for both Muslims and non-Muslims. They concluded that Malaysian Muslims and non-Muslims were aware of less about the existence of Islamic banks but they were unaware of specific Islamic finance methods.

In Egypt, Hegazy (1995) studied four hundred customers' demographic profiles and their bank selection criteria at two locations namely, the headquarters of Faisal Islamic Bank in Egypt (FIB) and the headquarters of Bank of Commerce and Development (BCD). This study showed that 98.8 percent of the FIB customers were Muslims who were married with children, while 32.4 percent of the BCD customers were Christians and 54.3 percent were Muslims. This indicated that the choice of Islamic bank was selected by Egyptian customers according to their Islamic religion. Further, 50 percent of the FIB customers who mostly were in private sector make monthly income between E.P 101- 300. This is relatively low income, however 50 percent of the BCD customers who owned businesses and made monthly income between E.P 300-600. Similarly Erol and El-Bdour (1989), Erol, Kaynak and El-Bdour (1990), Haron, Ahmad and Planisek (1994) and Hegazy (1995) observed that Islamic bank customers ranked the speed and efficiency of banking services on the top of their bank selection criteria list. In addition, this study found that Islamic bank customers claimed the bank vision of serving the

community regardless of expected profitability. In contrast, the rate of return offered was a primary factor for conventional bank customers who were focusing on banking profitability.

Metwally (1996) used factor analysis and correlation matrix to study the attitudes towards Islamic banks of Muslims in three Arabic countries: namely, Kuwait, Saudi Arabia and Egypt. It was found that religious factors were the major factors in choosing Islamic banking by Muslims in those countries similar results were found by Omer (1992) in his study of Muslims in the UK as well as by Hegazy (1995) in Egypt. This means that most Muslims in a dual-banking system choose their banks for religious reasons. Moreover, Metwally (1996) found that Islamic banks did not differ from conventional banks in their profit and cost feature to make more attractive for Muslim customers to use their services. Finally, the comparison that was made by Metwally (1996) between Islamic banks and conventional banks presented the results that Islamic banks were equal to conventional banks in staff competency and speed of the services.

Gerrard and Cunningham (1997) carried out the first study that focused on the individual customers' attitudes towards Islamic methods of finance in Singapore where Islamic banking was not established. They employed the same methodology and analytical technique (questionnaire, univariate, multivariate techniques and factor analysis) used by Haron, Ahmad and Planisek (1994) to discover the attitudes of Singaporeans towards Islamic banking. Interestingly, this research indicated that Singaporean Muslims differed from non-Muslims in their attitudes towards Islamic banks for reasons of religion and profitability, establishing the use of Islamic banks and the usefulness of interest free loans for the society. This was because only a few Muslims were aware of the culture of Islamic banking and non-Muslims were completely unaware of Islamic methods of finance. However, Singaporean customers likewise indicated that a fast and efficient services and confidentiality were the primary motivations for bank selection, as did the findings of Haron, Ahmad and Planisek (1994) in Malaysia.

Islamic bank customers in the state of Bahrain were studied by Metawa and Almossawi (1998) to investigate their banking behaviour. Similarly the research of (Omer 1992; Hegazy 1995; Metwally 1996) proved that the most important factor in determining the attitudes of Islamic bank customers in Bahrain was religion than profitability. This also emphasises that Muslims choose Islamic banks to comply with their Islamic religious beliefs. In addition, most bank customers in Bahrain were satisfied with Islamic banks'

services, especially their investment accounts. On the other hand, the lowest satisfaction was with Islamic finance schemes because of the high level of costs. Regarding the awareness of Islamic methods of finance, Bahrainis Muslims were found to be well aware of the fundamental Islamic banking terms, except in the case of financing schemes.

For Jordanian Islamic bank customers, Naser, Jamal and Al-Khatib (1999) again investigated their satisfaction and attitudes towards Islamic banks. Erol and El-Bdour (1989) and Erol, Kaynak and El-Bdour (1990) collected their data by a self administered questionnaire with descriptive statistic analysis. They found the majority of Jordanian Islamic bank customers were satisfied with Islamic banks' products and services. In addition, bank's reputation and religion were the most significant factors that determined their bank selection criteria. However, as with the studies conducted by Erol and El-Bdour (1989) and Erol, Kaynak and El-Bdour (1990) the Jordanian Islamic bank customers were found to be well aware of Islamic methods of finance with little knowledge regarding financing products, because there were a limited number of respondents who indicated potential use of Islamic finance methods.

Al-Sultan (1999) analysed the attitudes of three hundred and eighty five customers in Kuwait towards the services and products of the Kuwait Finance House (KFH), an interest-free bank. Similarly to the factor analysis technique and the major finding of Metwally (1996), Al-Sultan (1999) confirmed that adherence to the Islam was the primary motivation for Kuwaitis dealing with KFH. Furthermore, he observed that there was no difference between KFH and other banks in terms of cost and returns. On the other hand, 51.7% of respondents preferred to deal with conventional banks because of their better service. This means even though Kuwaiti customers have religious reasons for using Islamic methods of finance, they ranked the quality services at the top of their bank selection criteria. These findings are similar to those found by Haron, Ahmad and Planisek (1994) in Singapore.

In their study, Hamid and Nordin (2001) focused on the awareness of Malaysian customers towards Islamic banks. An important background to this work promote Islamic banking education and to state strategies for the new millennium-Malaysian experience. Therefore, their findings almost completely concerned about Malaysians' attitudes towards Islamic methods of finance. In the same manner as Haron, Ahmad and Planisek (1994) in Singapore, Hamid and Nordin (2001) illustrated that most Malaysian customers did not differentiate between Islamic banks' products and traditional banks'

products, though the majority has sufficient knowledge about the existence of Islamic banks in Malaysia and their services. Moreover, even though half of the respondents dealt with Islamic banks, they were still an improved understanding of Islamic banks' products. This study also described the importance of Islamic banking knowledge for Malaysian customers who could be Muslims or non-Muslims.

The impact of demographic factors on customers' selection of a specific bank within a dual-banking system as a case study was studied by Metwally (2002) in the state of Qatar. Notwithstanding, that most previous studies exploited demographic and socio-economic characteristics to make the profiles of respondents, this study was the first research which discussed the relationship between these characteristics and bank selection criteria. The main results were that females, older persons and public servants preferred to deal with Islamic banks. There was also a preference for Islamic banks among persons with low income and a moderate level of education. Conventional banks were favoured by young males in Qatar who were well-educated and professionals or highly-paid public servants. Foreign banks also preferred by well-educated high-income males and professionals.

Focusing on students' knowledge and perception of Islamic banks, Bley and Kuehn (2004) investigated the relationship between university students' knowledge of Islamic and conventional banks in the United Arab Emirates. Their sample comprised six hundred and seventy six graduate and undergraduate students at the School of Business and Management at the American University of Sharjah. This sample contained both Arabic and non-Arabic students who purportedly may have different attitudes towards Islamic and conventional methods of finance. The major finding was that Muslim students preferred the Islamic bank services because of religious convictions. This supported findings of Omer (1992), Metwally (1996), Metawa and Almossawi (1998) and Al-Sultan (1999) that Muslims preferred to deal with Islamic banks for largely religious reasons. The second finding was that successful Arabic Muslims had a high level of knowledge about Islamic financial terms and concepts, however, successful non-Arabic students had a high level of knowledge about conventional banks' products. Nonetheless, the overall correspondingly banking knowledge of students was at a low level.

Zainuddin, Jahyd and Ramayah (2004) studied Malaysian bank customers to show the differences in perceptions of Islamic banking among users and non-users. As with Metwally (2002), they found that most Islamic bank users were above thirty years of

age with a stable income. On the other hand, most non-users were singles persons who were aged less than thirty years and earned a low income. In general, users of Islamic bank services preferred to deal with Islamic banking much more than the non users. The final significant outcome of this study was that the decisions of Islamic bank users were also affected by spouses, friends and relatives as, well as a personal religious motivation.

Turkey is a Muslim country with many Islamic financial institutions. Recently, in Turkey, customer satisfaction of interest-free banking and bank selection criteria was analysed by Okumkus (2005). This study assessed the degree of satisfaction and awareness of customers who dealt with Special Finance Houses (SFH) that offered Islamic banking services and products in Turkey. Furthermore, it has been observed the significant reasons for the choice of these Islamic methods of finance and the relationship between these bank selection criteria and the socio-demographic factors of Turkish customers. The most important finding for it was that the majority of the SFH customers expressed that religion was the primary motivation for the use of Islamic banking products and services as found by many earlier studies (Omer 1992; Metwally 1996; Metawa and Almossawi 1998; Al-Sultan 1999 and Bley and Kuehn 2004). In addition, the second vital motivation was the provision of conventional facilities by SFH in accordance with Islamic law, which promoted the first motivation. As a result, this led to create a high level of satisfaction for Turkish customers towards most of the products and services offered by SFH.

Turkish customers, as well as most Arabic Muslim customers surveyed in previous studies were found to be generally aware of basic Islamic methods of finance, except more-complex Islamic finance structures such as profit/loss sharing methods of finance. Otherwise, this study discussed the connection between socio-demographic factors and the Islamic bank selection criteria, the satisfaction of the Turkish customers. For instance, the efficiency and speed at inter-branch transactions was more essential for males than females. The advice of friends and relatives was also appeared to be more important for business customers than those who were in service sector. To conclude, there was a significant relation between the extent of the customer's satisfaction and variables such as the age of the customers. For example, respondents in the 20-39 years age group was more satisfied with staff friendliness than other age groups.

Dusuki and Abdullah (2007) focused on two Islamic banks' customers in Malaysia namely Bank Islamic Malaysia Berhad and Bank Muamalat Malaysia Berhad in their

study to examine the main factors that motivate these customers to deal with Islamic banks. Their findings are consistent with many earlier Islamic banking patronage studies such as Erol and El-Bdour (1989), Erol, Kaynak and El-Bdour (1991), Haron, Ahmad and Planisek (1994) and Gerrard and Cunningham (1997), in which the quality of service delivery including staff friendliness and competency, efficient and speedy service were found to be important factors in influencing customers' banking selection. In addition, similar studies carried out by Zainuddin, Jahyd and Ramayah (2004) and Metwally (2002), they indicated that Islamic banks were preferred by elderly people who were relatively well educated regarding Islamic banking with low and middle-class income.

Finally, in the city of Adelaide in Australia, 300 Muslims were surveyed regarding their awareness of Islamic banking products by Rammal and Zurbruegg (2007). Their results illustrated that the majority of the respondents were interested and prepared to use Islamic methods of finance, but they were not properly informed about their function. In other words, even though most of the respondents had knowledge about availability of Islamic financial products, they were still unaware regarding the basic Islamic banking principles and specific Islamic methods of finance such as profit/loss sharing contracts. This is supported clearly by many studies in previous literature such as Okumus (2005), Bley and Kuehn (2004), Hamid and Nordin (2001), Naser, Jamal and Al-Khatib (1999), and Haron, Ahmad and Planisek (1994).

However, Rammal and Zurbruegg (2007) added that the lack of awareness and experience with *halal* (in accordance with Islamic *Sharia*) products were not to be a detriment to the willingness for respondents to use Islamic methods of finance even profit/loss sharing contracts. Also, the respondents indicated that using Islamic financial products was depending as long as the organisation to be well known and the availability of banking benefits such as ATM access and phone banking.

Table (4.1) A literature summary of individual customers' attitudes towards Islamic methods of finance

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Erol and El-Bdour (1989)	A Self-administered questionnaire distributed in the cities of Irbid, Zarka and Amman in Jordan.	434 Jordanian conventional and Islamic banks customers (households, professionals, merchants and businesses) (1989)	Demographic factors (sex, age, income and occupation). Bank services (saving account, current account, night deposit, loans, foreign exchange, etc). Selected patronage factors (location, fast and efficient service, recommendations, external appearance of bank, counter partitions, interior comfort, available parking space, bank's reputation, lower interest charges, higher interest payments, confidentiality of bank, friendliness of bank personal, reception received at the bank, confidence in bank's managers, mass media advertising, availability of favourable credit, range of services offered, financial counselling and overdraft privileges).	Univariate, multivariate statistical techniques and factor analysis.	The important factors for those who select Islamic banks were a fast and efficient service, the bank's reputation and image, and confidentiality of the bank. Religion is not the primary motivation for Jordanian customers to deal with Islamic banks. Relatives and neighbours play a significant role in a high degree of awareness of respondents who have knowledge about Islamic banking. New branches of Islamic banks did not promote more using for Islamic banks' services.
Erol, Kaynak and El-Bdour (1990)	A Self-administered questionnaire distributed in the cities of Irbid, Zarka and Amman in Jordan.	434 Jordanian conventional and Islamic banks customers (households, professionals, merchants and businesses) (1989)	Demographic factors (sex, age, income and occupation). Bank services (saving account, current account, night deposit, loans, foreign exchange, etc). Selected patronage factors (location, fast and efficient service, recommendations, external appearance of bank, counter partitions, interior comfort, available parking space, bank's reputation, lower interest charges, higher interest payments, confidentiality of bank, friendliness of bank personal, reception received at the bank, confidence in bank's managers, mass media advertising, availability of favourable credit, range of services offered, financial counselling and overdraft privileges).	Multivariate investigation and factor analysis with varimax rotation.	The important factors for those who select Islamic banks were a fast and efficient service, the bank's reputation and image, and confidentiality of the bank. There were significant differences between conventional banks' patrons and Islamic banks' patrons in their pricing policies. There is no impact at all for religious reasons on bank selection criteria. Relatives and neighbours play a significant role in the awareness of respondents about bank's type.
Omer (1992).	A Self-administered questionnaire in the United Kingdom.	300 Muslims who live in the United Kingdom to know their attitudes towards Islamic finance principles (1991).	Demographic factors (sex, age, income, religion, occupation, level of education). Knowledge of basic terms Islamic finance and Islamic banking transactions ( <i>riba, sharia principles, Ijara, Musharakah, Murabahah and Mudarabah, qarad hassan</i> ). Patronage factors (religious motivation, profitability, services, media advertising and third party influences).	Descriptive statistics analysis.	There was a high level of ignorance among Muslims in UK about Islamic finance principles. The religious reasons were the main motivation that motivates Muslims in the UK to deal with Islamic financial institutions. Muslims in the UK have a low level of education. Muslims in the UK have a strong preference for Islamic methods of finance over conventional methods of finance.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Haron, Ahmad and Planisek (1994)	A Self-administered questionnaire distributed in the cities of Alor Setar, Sungai Petani and Kangar in Malaysia.	301 Malaysian Muslims and non-Muslims who were conventional banks customers with no relationship with Islamic bank (1994).	Demographic factors (age, level of education, type of job, years on job, monthly income and monthly sales for own business). Bank services (saving account, ATM, current account, fixed deposit, fixed loan, housing loan, etc). Selected patronage factors (location, fast and efficient service, recommendations, external appearance of bank, counter partitions, interior comfort, available parking space, bank's reputation, lower interest charges, higher interest payments, confidentiality of bank, friendliness of bank personal, availability of favourable credit, size of bank, etc). Knowledge of Islamic bank (the existence, source of knowledge, understanding the differences, reasons for patronage and the possibility of dealing).	Univariate, multivariate statistical techniques and factor analysis with varimax rotation.	Muslims and non Muslims have the same perception in selecting their banks' services. Religious motivation is not the primary motivation for Muslims to deal with Islamic banks. Muslims and non Muslims value the provision of the fast services and quality of these services highly in their patronage factors. Most of Muslims and non Muslims have awareness about existence of Islamic banks but they unaware in specific methods of Islamic banking and they need to more understanding for the differences between conventional and Islamic banks.
Hegazy (1995)	A Self-administered questionnaire distributed in the city of Cairo in Egypt.	400 Egyptian customers of the Faisal Islamic Bank and the Bank of Commerce and development (1995).	Demographic elements (sex, age, occupation, education, income level, religion and marital status). Selection criteria (efficiency of personal, speed of banking services, easy access to bank, friendliness of personal, availability of parking, rate of return offered, bank name, internal design and comfort, bank's vision of serving the community regardless of expected profitability, proximity to home or work, friends recommendations, equity financing, relatives recommendations, credit availability, prior experience of family member, magazine advertising, bank architectural design, knowledge of employees, television advertising and overdraft privileges on checking accounts.	The Chi square test, the T-test and factor analysis.	Most of Faisal Islamic bank customers were Muslims (98.8) who choose that to comply with Islamic <i>Sharia</i> . Customers of Faisal Islamic bank ranked speed of delivering banking services and efficiency at the top of their bank selection criteria list. Also, they claimed bank vision on serving the community equity financing. Bank of commerce and development customers were mixed between Christian and Muslims who ranked rate of return offered at the top of their bank selection criteria.
Metwally (1996)	A Self-administered questionnaire to collect data from three Muslim Countries, namely: Kuwait, Saudi Arabia and Egypt.	385 Muslims in each country where these customers have a free choice to bank with Islamic bank or conventional bank (1995).	Selected patronage factors by Muslims (religion, reputation, staff, statement, hours, reference, check cost, profit, cost, easiness, speed, branches, community).	Factor analysis and correlation matrix.	The most important factors to determine attitudes of Muslims towards Islamic banks are religion, convenience and traditional services. Most Muslims within a dual-banking system choose their banks for religious reasons. Islamic banks do not differ much from conventional banks in profit and cost to attract Muslim customers. Islamic banks have staff competence and speed of services as same as conventional banks.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Gerrard and Cunningham (1997)	A Self-administered questionnaire distributed in the cities of Bukit, Bedok and Aljunied in Singapore.	190 Singaporean Muslims and non-Muslims who were interviewed at train stations (1995).	Basic terms in Islamic banks to determine knowledge ( <i>Riba, Shariah, Ijara, Modarabah, Musharakah and Murabahah</i> ). Attitudes of Singaporean towards Islamic banking (religious reasons, profitability reasons, new branches, serving the community, possibility of dealing with Islamic banking and advantages of Islamic banking) Selected patronage factors (location, fast and efficient service, recommendations, external appearance of bank, counter partitions, interior comfort, available parking space, bank's reputation, lower interest charges, higher interest payments, confidentiality of bank, friendliness of bank personal, reception received at the bank, etc).	Univariate, multivariate statistical techniques and factor analysis with varimax rotation.	Muslims differ from non Muslims in their attitudes towards Islamic banks such as religious and profitability reasons, new Islamic banking branches and usefulness of interest free loans for society. Providing a fast and efficient services and confidentiality are the primary motivation for selecting banks' services. Muslims were more aware of the culture of Islamic banking than the non Muslims.
Metawa and Almossawi (1998)	A Self-administered questionnaire distributed in the state of Bahrain.	300 Bahrainis customers of the Faisal Islamic Bank and the Bahrain Islamic Bank in Bahrain (1998).	Years of banking relationship (previous banking relationship with conventional banks and duration of banking relationship with Islamic banks). Bank services (current account, saving account, traveller cheques, money order, ATM, financing facilities, letter of credit, international financial services, ordered bank statements and investment accounts). Demographic factors (age, income and education). Elements of customers' satisfaction (bank employees, equipment, location and evening banking hours). Factors affecting the customer choice of Islamic banks (Islamic principles, family and friends, convenience location rate of return).	The profile analysis and a non parametric statistical test.	Most of Islamic banks' customers in Bahrain were satisfied with Islamic banks' services especially investment accounts. The lowest satisfaction of customers was about Islamic finance schemes due to the high cost. The most important factor for the use of Islamic banks services in Bahrain is religion then profitability. Islamic banking customers were aware of fundamental Islamic terms except financing schemes.
Naser, Jamal and Al-Khatib (1999)	A Self-administered questionnaire distributed in Jordan.	206 Jordanian customers of Islamic bank's branches (1998).	Demographic factors (age, gender, nationality, religion, income, academic qualification, country of education). Islamic banking services (current account, time deposit, investment of <i>Mudarabah</i> , investment in <i>Musharakah, Murabahah</i> arrangement, etc). Reasons behind dealing with Islamic bank (religion, profitability, advice from relatives and friends, bank location, bank reputation, etc). Elements of satisfaction for services of Islamic bank (advice of employees, the proficiency of bank personnel, bank management, confidence in the <i>Sharia</i> supervisory board committee, confidence in bank management, etc)	Descriptive statistics analysis.	The most important factors to determine attitudes of Jordanian towards Islamic banks are bank's reputation then religion. The majority of Jordanian customers were satisfied with Islamic banks' products and services. Jordanian customers indicated a high level of awareness of some of the Islamic banks' methods of finance and unaware about a few of them. There were a limited number of respondents who showed that they used Islamic finance methods.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Al-Sultan (1999)	A Self-administered questionnaire distributed in Kuwait.	385 Kuwaitis customers of Kuwait Finance House (1998).	Socio-Economic demographic factors (sex, age, monthly family income, education, occupation and nationality). Reasons for the preference of Islamic bank KFH (interest-free firm, easy to obtain loans, low borrowing cost, efficiency of employees, hours of business, loans' time periods, advice of relatives and friends, easy to read financial statements, community services, speed of transactions, bank's reputation, religious reasons, etc).	Factor analysis.	Adhering to Islamic religion is primary factor that motivates Kuwaitis to deal with Islamic banks. 51.7 % of the respondents prefer to deal with conventional banks. Kuwaitis who prefer to deal with conventional banks do so due to these banks better services. There is no difference between Islamic and conventional banks in cost and returns concepts.
Hamid and Nordin (2001)	A Self-administered questionnaire distributed in the city of Kuala Lumpur in Malaysia.	967 Malaysian customers of commercial banks and Bank Islam Malaysia Berhad (2001).	Demographic factors (age, gender, employment, race and religion). Elements determined customers' knowledge about Islamic banking (knowing the existence of Islamic bank, visiting Islamic bank, knowing Islamic banking financial products, <i>Mudarabah</i> , <i>Musharakah</i> , <i>Bai Bhitaman Ajil</i> , <i>Ijarah</i> , <i>Bai Asalam</i> , <i>Murabahah</i> , the use of Islamic banking products, interest-free banking scheme and the differences between Islamic banks and conventional banks.	Descriptive statistics analysis.	The majority of the respondents have knowledge about existence of Islamic banks in Malaysia. Approximately 50 % of the respondents were in dealing with Islamic banks' windows and they know Islamic banks' products but with little understanding. More than 60% of the respondents cannot differ between Islamic and conventional banks' products. Malaysian customers are in need to increase their knowledge about Islamic banking methods of Finance.
Metwally (2002)	A Self-administered questionnaire to collect data through telephone interviews in Qatar	385 Qatari customers of banks in Qatar (2002).	Socio-Economic demographic factors (sex, age, income, education, profession and nationality). Types of banks (local conventional banks, local Islamic banks and foreign banks).	Multiple discriminant analysis	Females, older persons and public servants prefer to deal with Islamic banks. Banked customers who have relatively low income and moderate education prefer Islamic banks. Foreign banks are favoured by matured well-educated males who professional with relatively high income. Conventional banks are favoured by young males who well-educated and professionals or highly-paid public servants.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Bley and Kuehn (2004)	A Self-administered questionnaire distributed in the School of Business and Management at American university of Sharjah in the United Arab Emirates.	667 graduate and undergraduate students of school of business and management (2004).	The perception of conventional and Islamic banking products (perception of Islamic banking products and services, perception of Islamic banking concepts, perception of Islamic banking terms, personal banking preference and religion aspects).Knowledge and demographic factors (Islamic banking knowledge, conventional banking knowledge, primary language, area of study, cumulative grade point average, Arabic spoken fluency, number of university credits completed, religion and gender.	A principal components analysis with an Oblimin rotation, descriptive statistic analysis and regression model.	Muslim students prefer Islamic banks' services according to adhering to Islamic religion. Male Muslims Arabic students who had academic success have high level of knowledge about Islamic finance terms and concepts. Non Arabic students who had academic success have the highest level of conventional finance knowledge. Generally, students' knowledge about Islamic and conventional finance was low level.
Zainuddin, Jahya and Ramayah (2004)	A structured questionnaire distributed in the city of Penang, in Malaysia.	123 Malaysian staff and master of business administration students at Sains university (2004).	Socio-Economic demographic factors (gender, marital status, age group, education level and monthly income). Islamic banking products ( <i>Al-Wadiah, Takaful insurance, Al-Bithaman Ajil, Mudarabah, Murabahah Ijarah, qarad hasan</i> ). The perception of Islamic banking factors (higher return on deposits, fixed payment on loans, banking facilities that comply with <i>Sharia</i> , friendliness with employees, low service charges and quality of service.	Descriptive statistics analysis.	Most of Islamic bank users were married, above 30 years old and have stable income. Most of non users were singles, aged less than 30 years old and earning low income. Overall, users prefer to deal with Islamic banks much more than non users. Spouse, friends and relatives as well as religious motivations impact on decisions of users towards Islamic banks products.
Okumus (2005)	A Self-administered questionnaire distributed in Turkey.	161 Turkish customers of the Special Finance House (2004).	Demographic factors (age, gender, religion, practicing religion, level of education, type of employers, type of business/job, years in business/job and monthly net income). Selected patronage factors (religion reasons, high return on investment, staff friendliness, religion and profitability reasons, advice from relative and friends, advertising and image of SFH, efficiency and speed of transactions low service charge, location, availability of loans, customer confidentiality, etc). Customer satisfaction factors (efficiency and speed of completing transactions, quality of advice offered by SFH personnel, location, interior design, parking facilities, working hours, staff sociability and friendliness, financial counselling provided, availability of loans, etc)	Descriptive statistics analysis.	77% of the respondents agreed that religion was the primary reason for the use of Islamic banks' products. The second and significant motivation for the use of Islamic banks' conventional facilities that operate in accordance with interest-free principles. Turkish customers were mostly aware of basic products and services of Islamic banks, but they were unaware about specific Islamic finance methods. More than 90% of the respondents were satisfied with the services and products offered by Islamic banks.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Dusuki and Abdullah (2007)	A Self-administered questionnaire distributed in Malaysia.	800 customers of Bank Malaysia Berhad and Bank Muamalat Malaysia Berhad (2007)	Demographic factors (age, gender, marital status, educational level and monthly income). Selected patronage factors (religion, cost/benefit, service delivery, size and reputation, staff factors, convenience, confidentiality, friends and relatives' influence and mass media advertising). Bank selection criteria (Knowledgeable and competent personnel, friend personnel, customer service quality, Islamic reputation and image, economic reputation, respect for human rights, Islamic working environment and involve in community).	Descriptive statistics, Friedman test and factor analysis.	Most of Islamic banks' customers fall in the range of 20 – 50 years of age who are in majority Islamic well educated with low and middle-class income. Islamic banks' customer satisfaction depends on the quality of services provided by Islamic banks. This quality includes factors such as treating customers with courtesy and respect, staff ability to convey trust and confidence, efficiency and effectiveness in handling any transactions and knowledgeable concerning Islamic bank's products.
Rammal and Zurbruegg (2007)	A Self-administered questionnaire distributed at three different mosques in Adelaide, Australia.	300 Muslims in the city of Adelaide, Australia during June (2004)	Demographic factors (sex, owned bank account, profession and religion background). Questions relating to willingness to purchase profit/loss sharing Islamic banking products (awareness of <i>halal</i> banking products, having a <i>halal</i> bank account, willingness to switch to a <i>halal</i> products, willingness to switch without credit facilities, willing to switch to a profit/loss agreement and willingness to switch dependent on brand recognition.	Descriptive statistics and logistic regression	Most of respondents who know Islamic banking products are unaware regarding basic principle of Islamic banking and profit/loss sharing concept. However, the lack of awareness and experience with <i>halal</i> products do not seem to be a detriment to the willingness for respondents to purchase profit/loss products. The respondents would purchase Islamic financial products as long as the organisation that is providing the service is well known.

#### **4.3 Business Firms' Attitudes towards Islamic Banking:**

Business firms play a significant role in the success of the banking sector in many economies. Both conventional and Islamic banks desire to offer their services at a high level of quality to attract as much as they can from these businesses. This section composes two parts. The first briefly present some selected studies from the literature of business firms' attitudes towards conventional banks. The second part discusses in detail the literature of business firms' attitudes towards Islamic methods of finance.

A number of studies have surveyed small and large business firms to evaluate their motivations in selecting a conventional bank. For example, Turnbull (1982) studied the bank selection process of medium and large-sized UK companies with European subsidiaries and found that reliability and assurance were the most important factors. This was also confirmed by Tyler and Stanley (1999) for large corporate customers in the UK: large business firms usually focus on a bank's reputation and reliability. Turnbull (1983) showed differing results surveyed medium-sized companies in the UK without European subsidiaries. His finding was that the size of bank was a significant factor for the choice of conventional bank; though this could also be because of these business firms have a large amount of credit. This factor was also the primary bank selection criteria for the corporate customers in Hong Kong surveyed by Chan and Ma (1990). However, some had different attitudes towards conventional banks, such as Gazetted hotels in Singapore that illustrated that pricing of services and location represent the first factor for their bank selection because of their limited dealing with banks (Gerrard and Cunningham 2000).

In Greece, Athanassopoulos and Labroukos (1999) tested corporate customer behaviour in financial services. This study indicated that the most of Greek corporate customers made product-by-product selection for their banks services. For instance, pricing or services charges appears to be a significant factor for lending. Even though corporate customers' attitudes towards conventional banks differed from one country to another in Europe, a comprehensive study of European corporate customers' choice of banks in twenty European countries was conducted by Mols, Bukh and Blenker (1997). They observed that price and service quality were the most important bank selection criteria for most European business firms. The importance of service quality in the bank selection process was confirmed for business firms in Canada and South Africa by Rosenblatt, Laroche, Hochstein, McTavish and Sheahan (1988) and Turnbull and Gibbs (1989), respectively.

A consensus has emerged about Australian business firms towards traditional banks among Lam and Burton (2005), Jones, Nielsen and Trayler (2002), Trayler, Nielsen and Jones (2000) and Nielsen, Terry and Trayler (1998). Overall, the major finding was that Australian business firms preferred to deal with a bank that had the ability to offer long-term services. However, bank's willingness to accommodate corporate customers' banking operations and credit needs for the long-term was the primary factor in firms' bank selection criteria. On the other hand, Lam and Burton (2005) indicated that Hong Kong firms did not place such as emphasis on long-term relationship with their banks as compared to Australian. Moreover, although Australian firms placed an emphasis on the ability of the bank to offer a long-term relationship, service delivery was found to be the most important criteria for firms of the United States in their bank selection criteria (Trayler, Nielsen and Jones 2000).

Based on these findings it can be seen, there was some contradiction between the most significant conventional bank selection criteria for business firms in the above studies. This could be because of the differentiations which related to the previous studies such as research location, size of the sample and the date when the study was conducted. Until relatively recently, there has been little work concerned business firms' attitudes towards Islamic methods of finance. These studies are summarized in Table 4.2. The first study that focused on business firms attitudes towards Islamic banks in a dual banking system where Islamic banks have established side-by-side with conventional banks was conducted in Kuwait by Edris (1997). The focuses of this study was on large, medium and small business customers' bank selection criteria process. Even though Kuwait is a Muslim country and Metwally (1996) and Al-Sultan (1999) showed that there was preference for Islamic methods of finance among Kuwaiti customers, the majority of the businesses were dealing with conventional banks much more than Islamic banks. In addition, these business firms ranked the size of the bank assets to be the first factor in bank selection criteria process. Edris (1997) inferred that business firms in Kuwait aimed to obtain suitable credit and services from a bank which had reliability and large amount of assets. In contrast, Islamic methods of finance was ranked number five among bank selection criteria process by Kuwaiti business customers, which means Kuwaiti business firms focus on profitability than the religious motivations. Moreover, this study illustrated that most of business firms in Kuwait were multiple bank users because of their desire to utilize from advantages of many banks.

Jalaluddin and Metwally (1999) questioned three hundred and eighty five small business firms in Sydney about their attitudes towards the probability of applying profit/loss sharing methods of finance that was recently adopted by Islamic banks. They indicate that there are other factors than religion for small business firms in Australia to use profit/loss sharing methods of finance such as degree of risk sharing compared with degree of risk business, cost of borrowing in funds from other lenders and expected rate of return. Furthermore, probability of applying profit/loss sharing methods of finance by small business firms dependent on a high degree of risk in their business, an increase in cost of borrowing (interest rates) and a high expected rate of return. This means that small business firms can use these new methods of finance when they are in need to share their business risk (financial support) or when there is an increase in interest rates which represented as the cost of borrowing from other financial institutions. However, small business firms illustrate that they consider the expected rate of return and the degree of management intervention more than obtaining funds on profit/loss sharing basis. Also, the ratio in which profit/loss shared fund between the lender and small business firm was insignificant since this ratio will impact on the results of this sharing, particularly, profit and loss.

Jalaluddin (1999a) focused on small business firms' attitudes towards profit/loss sharing methods of finance in one chapter of his thesis offer conducting the research in Sydney, Australia. Even though the most if not all decision makers in these firms were non-Muslims, this study observed that 59.5 percent of respondents indicated an interest in the profit/loss sharing methods of finance as an alternative methods of financing. As with the study conducted by Jalaluddin and Metwally (1999), the major motivation for the Australian business firms in obtaining funds on profit/loss sharing basis was business support in high risk situations. On other hand, terms and some conditions of profit/loss sharing scheme as well as the lack of knowledge in these methods was the primary reason for those firms that rejected to use profit/loss sharing methods of finance. In addition, this study showed that risk sharing between borrowers and lenders is the most important factor in discriminating between Australian small business firms who agree to apply these new methods of finance and those who do not.

In Malaysia, Ahamad and Haron (2002) analysed forty-five Malaysian corporate customers' attitudes towards Islamic banking products and services. According to their analysis, the major finding was that economic factors such as profitability and quality of services were more significant for Malaysian corporate customers than religious

reasons. This could be because of the majority of respondents were non Muslims who were aware of existence of Islamic banks and they believe that Islamic banks had suitable financial methods as an alternative to the conventional methods of finance. Regarding Islamic banking knowledge, most of the respondents had a low level of knowledge about Islamic banks' products especially financing methods. To conclude, this study indicated that most of the respondents confirmed that Islamic banks in Malaysia were in need of promoting and to introduce their products and services to obtain more marketing.

Table (4.2) A literature summary of business customers' attitudes towards Islamic methods of finance

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Edris (1997)	A Self-administered questionnaire distributed for large, medium and small business firms in Kuwait.	304 business firms in the commercial, industrial and services sectors (1997).	Dealing behaviour with banks. Bank services (current accounts, saving accounts, deposits, fund transfer, overdraft, bills discount, term loans, inventory loans, foreign currency loans, project finance, etc). Selected patronage factors (size of bank assets, efficiency of personnel, help in financial emergencies, banking expertise, friendliness of staff, reputation, communication with staff, knowledge of firm's business, prompt provision of services, availability of information, reliability of staff, advice availability, innovative services, safety of funds, Islamic banking practices, interest on deposits, hours of operation, convenience of location, etc).	Descriptive statistics analysis and Multiple discriminant analysis.	The majority of business firms deal with commercial banks more than specialized or Islamic banks. Islamic banking practices ranked number 5 among selected patronage factors by business firms in Kuwait. Most of business firms in Kuwait are multiple bank users.
Jalaluddin and Metwally (1999)	A self-administered questionnaire distributed in the city of Sydney in Australia.	385 small business firms were asked about probability of applying profit / loss sharing methods of finance (1997).	The main characteristics of the sample (business types, range of assets, methods of borrowing funds, amounts of loans, number of employees, rang of ownership, number of partners, business environment, gender of owners, age groups and experience of respondents). Independent variables (risk sharing, cost of borrowing/ profitability linkage, cost variability of finance, motivation to business expansion and management intervention.	Logit and Probit analysis.	Religion is not the only factors that motivate small businesses in Australia for the use of profit/loss sharing methods of finance, but there are other factors. The probability of borrowing funds on profit/loss sharing basis increases when the degree of business risk is high or interest rates is high. Expected rate of return and degree of intervention in management are considered by Australian small business firms more than financing their activities according to profit/loss sharing system.
Jalaluddin (1999b)	A self-administered questionnaire for small business firms in Sydney, Australia.	385 small business firms were asked about their attitudes towards profit/loss sharing methods of finance (1997).	Favouring factors for profit/loss sharing methods (high interest charges, risk of default, rigidity in the existing system, proneness to bankruptcy, interest claim, lack of motivation, cost of borrowing, risk sharing, economic condition, business support, etc). Factors for rejection (high cost of obtaining funds, management intervention, inconvenience, ownership, tax factor, disclosure of confidential financial records, reluctance to lend on the profit/loss sharing basis. High cost of borrowing at prosperity, vigorous auditing, etc).	Factor analysis and Multiple discriminant analysis.	59.5 % of the small business firms indicated interest to use profit/loss sharing methods of finance. Business support is the main motivation that motivates businesses to apply profit/loss sharing methods of finance. Terms and some conditions of profit/loss financing represent the major reason for the rejection of the profit/loss sharing methods of finance. Risk sharing between borrowers and lenders is the most significant factor in discriminating between businesses who agree and those who do not.

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Ahmad and Haron (2002)	A self-administered questionnaire distributed for the companies listed in the Kuala Lumpur Stock Exchange in Malaysia.	45 Malaysian corporations who are financial directors, financial managers and general managers of finance (2002).	Demographic factors for respondents (religion, age, qualification, years in the present position, Years with the present organization). Islamic and conventional banking services (overdraft, term/fixed loans, letters of credit, trusts receipts, bankers acceptance, bank guarantee, fixed deposit, current account, etc). Knowledge questions about Islamic banking. Selected patronage factors (cost/benefit, service delivery, size and reputation, convenience, friendliness and bank personnel).	Descriptive statistics analysis.	Most of respondents indicate that economic factors and religion were important factors for selection bank services. Even though most of respondents were non Muslims, most of them were aware about existence of Islamic banks that are an alternative to conventional banks. Most of respondents have low knowledge about Islamic banking products especially financing modes. 75 % of respondents make agreement that Islamic banks in Malaysia need to promote their products and services for enough marketing.

#### **4.4 Financial Institutions' Attitudes towards Islamic Banking:**

Conventional financial institutions such as traditional banks have been established well by public and private sectors that offer all financial products and services. However, even though these financial institutions possess alone the traditional of banking products and services, recently Islamic banks have become emulative institutions for conventional ones because of their new methods of finance that has been practiced worldwide. Consequently, this competition leads to critical studies about the future relationship between conventional and Islamic banks. For instance, there were a few studies that discussed financial institutions' attitudes towards Islamic methods of finance which presented briefly in Table 4.3.

The first study that focused on financial institutions' attitudes towards Islamic methods of finance was conducted by Jalaluddin (1999b) in Australia. In this analysis, eighty Australian financial institutions were surveyed on their attitudes towards profit/loss sharing methods of finance and whether they would be agreed to lend funds in accordance to these new methods of finance. Interestingly, this study indicate that 41.2 percent of the respondents were prepared to lend funds on profit/loss sharing basis, which means there are motivations for these firms to do so. These motivations were namely, business support, growth in demand for funds, risk of default under the conventional system and potential higher return to lenders. As with the study conducted by Jalaluddin and Metwally (1999) this study confirmed that the major factor for financial institutions as business firms is business support, which means both lenders and borrowers obtain mutual business support through the use of profit/loss sharing methods of finance.

On the other hand, management complications, unfamiliarity and risk sharing with borrowers represented as the main reasons for financial institutions that were not prepared to lend on profit/loss sharing basis. From this it can be inferred that unfamiliarity with these new methods of finance comes out of the lack of awareness among Australian financial institutions in Islamic methods of finance. The final result for this study was that the growth in demand for funds was the most important factor in discriminating between financial firms who agreed to lend on this new scheme and those who do not.

Karbhari, Nasser and Shahin (2004) undertook focused interviews for financial institutions in London, United Kingdom to investigate their attitudes towards the main problems, challenges and opportunities facing Islamic banks in the UK. The major

finding for this study was that most if not all respondents were convinced about involving Islamic methods of finance in conventional banks' operations would promote the establishment of Islamic banks in the UK. In turn, this would increase British customers' understanding in Islamic methods of finance. This was similar to Omer's (1992) results where it was found that Muslims and non Muslims were unaware at Islamic banks' products and services. In addition, most of the respondents showed that the UK government did not support the establishment of Islamic banks which could be for the lack of awareness as well. As result, educating people in the UK about Islamic methods of finance can be the useful way to make change in future financial sector in the UK that will become a dual banking system.

To conclude, factors influencing knowledge of Islamic banking services of Malaysian banks was studied by Abdullah and Abdul Rahman (2007). They examined the level of awareness, knowledge and understanding of Islamic banking and finance among bank managers. Seventy nine managers in Malaysian banks that applied Islamic methods of finance were surveyed to achieve their study's objectives. The results indicated that bank managers possess good knowledge of the general principles of Islamic banking and finance. In addition, they were aware regarding some methods of finance such as *Morabahah*, *Qurad Hassan* and *Ijarah*. However, they have moderate level of awareness regarding other methods of finance like *Musharakah* and *Mudarabah* concepts.

The results also showed that the bank managers' knowledge on advanced concepts of Islamic banking and finance such as *gharar* (uncertainty) are relatively poor. Furthermore, attendance at training programmes was the most significant factor in improving the manager's level of knowledge of Islamic banking and finance. The results also indicated that managers with longer banking working experience and higher level of education have inverse relationship with the level of knowledge of Islamic banking and finance. However, while longer working experience in Islamic banking and finance industry indicated a positive relationship with the knowledge of Islamic finance, level it was not significant.

Table (4.3) A literature summary of financial institutions' attitudes towards Islamic methods of finance

Author(s)	Methodology	Sample	Explanatory variables	Analytical technique	Main findings
Jalaluddin (1999a)	A self-administered questionnaire distributed in the city of Sydney in Australia.	80 Australian financial firms in Sydney were interviewed in personal meetings (1997).	Favouring lending factors (encouragement to borrow by beginners, reduction in bad debts, encouragement to borrow in recession, demand for loans by small business, improvement in business efficiency, market expansion, innovation in financial products, business support, suitability to risky business, relative flexibility of the profit/loss sharing system, control on loan repayment, commitment to success, future lending prospects, risk of default in the traditional system, proneness to bankruptcy and potential higher return). Rejecting lending factors (risk sharing, management complexity, Interference with business, unwillingness to disclose confidential financial records, tax factor, lower profit ratio, vigorous auditing, unfamiliarity, low demand, monetary regulation, application of method, risky projects and depositors' concern).	Factor analysis and Multiple discriminant analysis.	41.2 % of the financial institutions indicated their readiness to lend on profit/loss sharing basis. Business support is the main motivation that motivates financial institutions to apply profit/loss sharing methods of finance. The positive respondents show that interest payments create difficulties for business sometimes. Management complication, unfamiliarity and risk sharing with borrowers represent the main reasons for financial institutions that were not prepared to lend on profit/loss sharing basis. The growth in the demand for funds is the most significant factor in discriminating between financial firms who were prepared to lend on the basis of profit/loss sharing and those who do not.
Karbhari, Nasser and Shahin (2004)	Focused interviews for financial institutions in the city of London in United Kingdom.	Six executive respondents in four institutions that were involved with Islamic banking services (2000).	Questions for respondents about (early experience of Islamic banking in the UK, current experience of Islamic banking in the UK, difficulties in establishing Islamic banks in the UK, support for Islamic banking in the UK, customers of Islamic banking in the UK, conventional banks and Islamic banking, staffing and training, challenges facing Islamic banks and developments and opportunities for UK Islamic banking)	Qualitative analysis.	All respondents were convinced about involving Islamic banks' products and services in conventional banks to promote establishing of Islamic banking and to improve customers' understanding about these new services. Most of respondents indicate that Muslims in UK were unaware about Islamic banking products and services. Most of respondents show that UK government did not support establishing of Islamic banks.
Abdullah and Abdul Rahman (2007)	A self-administered questionnaire distributed for managers in Malaysian banks	79 managers of banks that deal with Islamic finance in Malaysia (2007)	Demographic profiles (gender, age, working experience, designation and educational background). Factors influencing the level of knowledge of Islamic finance (working experience, educational background, training programme and religiosity). Questions about level of knowledge on general principles of Islamic finance and Islamic methods of finance.	Descriptive statistics and correlation test.	Most of the managers have good knowledge regarding general Islamic finance principles and <i>Morabahah, Qard Hassan and Ijarah</i> . However, their knowledge of <i>Musharakah</i> and <i>Mudarabah</i> concepts was only moderate. Training programmes was the most significant factor improving managers' level of knowledge. The majority of the respondents had attended training programmes, but only 7.6% of them were educated in Islamic finance.

#### **4.5 Concluding Remarks**

Even though the literature on customers' attitudes towards Islamic banking is relatively small, this literature covered many types of customers in Muslim and non-Muslim countries and indicated interesting results. First of all, the results of the literature on individual customers showed that most Muslims in Muslim and non-Muslim countries have dealt with Islamic banks for religious motivations and they were aware of the Islamic method of finance except financing schemes. In contrast, profitability and efficiency were the significant factors for Muslims and non-Muslims who did not prefer Islamic banking with lack of knowledge in Islamic methods of finance. In general, relatives and friends play an important role to individual customers in their bank selection criteria.

The second section in this chapter indicates different results regarding attitudes of business firms towards Islamic methods of finance. In particular, religion is not the major factor that motivates business firms to deal with Islamic banking, but there are others factors such as financial support and risk sharing. Finally, the literature on financial institutions' attitudes towards Islamic methods of finance was very few that illustrates some significant results. To sum up these results, the main motivation for financial institutions to apply Islamic methods of finance was business support and growth in demand for funds. On the other hand, management complications, unfamiliarity and risk sharing with borrowers represented as the main reasons for financial institutions that were not prepared to apply Islamic methods of finance. Moreover, the lack of knowledge in Islamic banking was an important element which helps financial institution to use Islamic methods of finance.

In conclusion, these studies' results enlighten a variety of different attitudes towards Islamic methods of finance. These studies have inspired this thesis on similar aspects of Libyan attitudes towards Islamic methods of finance, since there are presently no Islamic financial institutions operating in Libya.

## **CHAPTER 5: THEORETICAL PERSPECTIVE AND EMPIRICAL RESEARCH METHODOLOGY**

### **5.1 Introduction**

Chapter 4 indicates an empirical literature review of studies regarding attitudes, perceptions and knowledge of Islamic methods of finance. In these studies, most of the researchers use quantitative methodology to achieve their objectives. According to Neuman (2003) Quantitative research uses variables, relations among variables, hypotheses, units of analysis and causal explanation to indicate empirical results. The purpose of this chapter is to briefly discuss the theoretical underpinning of this research and to explain the methodology adopted for empirically assessing for Libyan attitudes (retail consumers, business firms and banks) towards Islamic methods of finance. This includes a discussion of the empirical methodology, methods of data collection, sampling strategy and an outline of the analytical procedures.

The chapter itself is divided into seven sections. Section 2 presents the theoretical framework and hypotheses. Section 3 provides research framework. Section 4 explains the survey design and aspects of the data collection including questionnaires. Section 5 discusses the sampling strategy. The analytical techniques are detailed in Section 6. The chapter ends with some concluding remarks.

### **5.2 Theoretical Framework and Hypotheses**

The Theory of Reasoned Action (TRA) (Fishbein and Ajzen 1975) is the most widely studied model of attitudes and behaviour. This model has received broad support in empirical studies of consumer decision making and in the literature on social psychology (Sheppard, Hartwick and Washaw 1988). According to this theory, consumers consider the consequences of alternative behaviours before engaging in them and that they choose to perform behaviours they associate with desirable outcomes. In particular, Fishben and Ajzen suggest that behavioural intent is derived from two factors: (i) attitude towards behaviour, and (ii) subjective norms (or perceived social pressure associated with the behaviour). The theory basically posits that for behaviour, attitudes are developed from beliefs and can be used to predict behavioural intentions and behaviour. Behaviours are driven by behavioural intentions, which themselves are the product of attitudes toward behaviour and subjective norms with respect to the behaviour. The relative importance of attitudinal and normative considerations can vary widely from person to person. Figure 5.1 shows a diagram of the TRA as follows:

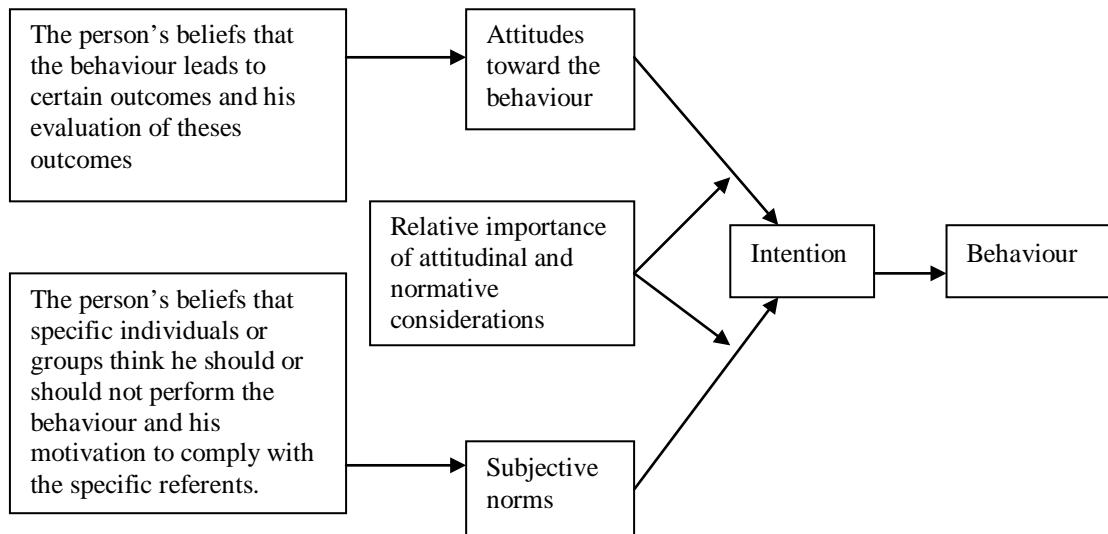


Figure 5.1: Fishben and Ajzen's (1975) TRA Framework

Source: Ajzen and Fishben (1980, p. 8)

Ajzen and Fishben (1980) applied their theory of TRA and found that the intention to engage in specific behaviour was a strong predictor of the behaviour. This is also supported by some other studies including Randall and Wolff (1994), Ajzen (1991) and Sheppard, Hartwick and Washaw (1988). They conducted three independent meta-analytic reviews of relationship between intention and behaviour. Ajzen and Fishben (1980) also developed their theory TRA to include external variables, which would have indirect effects on behaviour. The TRA assumes that external variables namely demographic variables, attitudes towards targets and personality traits indirectly affect a person's attitudes and behavioural intention. firstly, as shown in Figure 5.2 demographic variables such as person's age, religion and education would have indirectly positive or negative effect on his/her intention to do specific behaviour or using something. Accordingly, this thesis concentrates on the impact of these variables on Libyan attitudes towards Islamic lending. Secondly, in case of traditional attitudes towards people or institutions as targets, TRA assumes that the more favourable a person's attitudes is towards some objects, the more likely he/she will be to perform any given positive behaviour with respect to that object, and the less likely he/she will be to perform any negative behaviour with respect to the object. Finally, a personality trait is usually viewed as a predisposition to perform a certain class of behaviour or that appear to underlie of influence the behaviour in question. For instance, in marketing research, explaining the purchase of different products can be indicated by looking at consumers' masculinity-femininity, life style, nurturance or extraversion-introversion (Ajzen and Fishben 1980, p. 82-89).

The TRA has been used successfully to identify key elements of consumer decision-making (Keen and McDonald 2000; Taylor and Todd 1995). Even though most of the support for the theory has come from social psychology, research using TRA has proven to be successful across a number of disciplines and is designed to explain any human behaviour (Ajzen and Fishbein 1980 and Shepard, Hartwick and Washaw 1988). For example, TRA was used by many studies in marketing banking and finance discipline with regard to retail consumers' attitudes including Yu and Wu (2007), Ravi, Carr and Sagar (2006), Shih and Fang (2006), Xu and Paulins (2005), Lee and Littrell (2005), and Zainuddin, Jahys and Ramayah (2004). Furthermore, TRA was used to determine attitudes of firms' managers by many scholars such as Patterson (2004). Figure 5.2 indicates the Summary of the Ajzen and Fishbein's (1980) TRA framework.

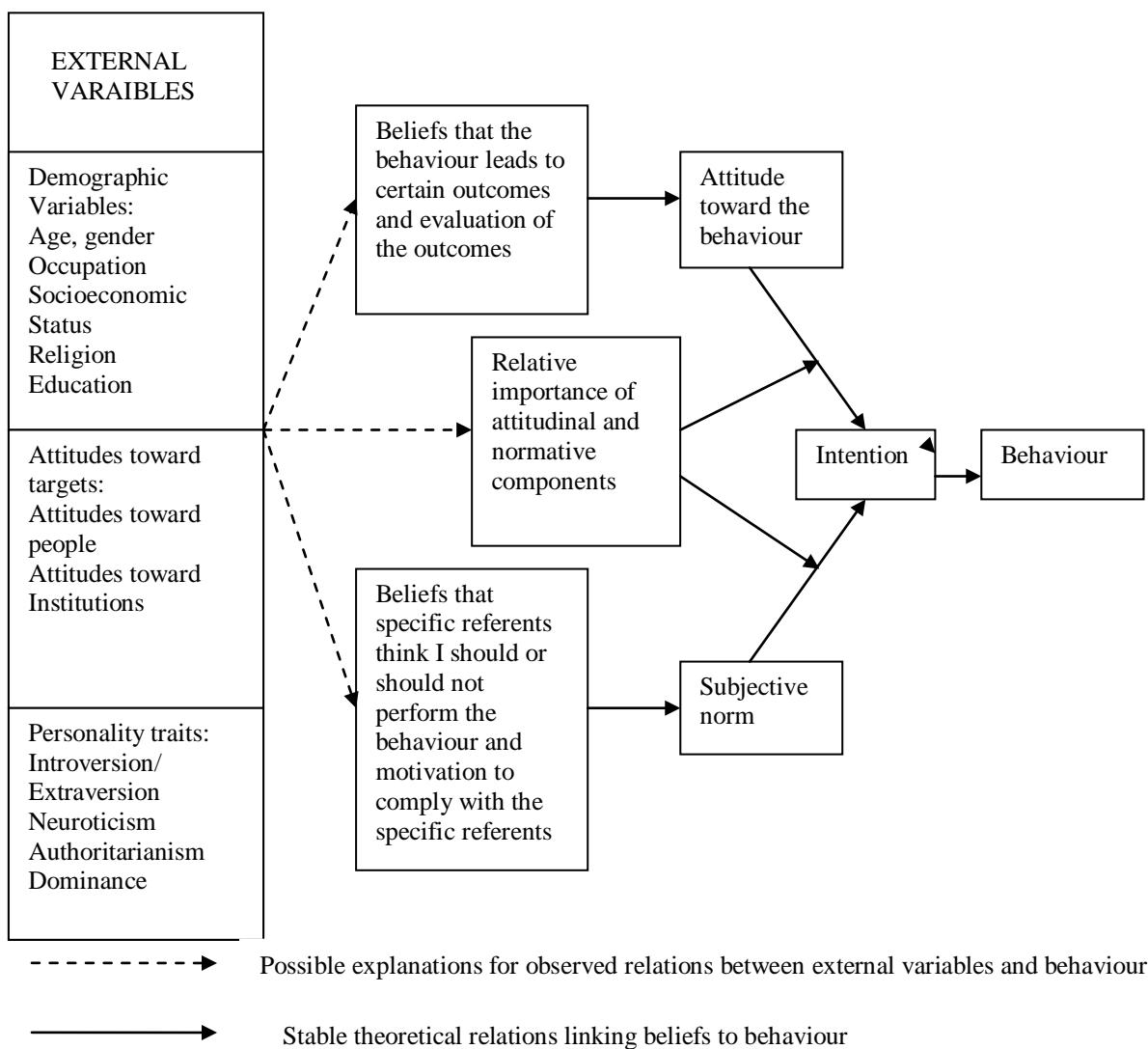


Figure 5.2: Ajzen and Fishbein's (1980) TRA Framework  
Source: Ajzen and Fishben (1980, p.84)

In accordance with Ajzen and Fishbein's (1980), Theory of Reasoned Action, this thesis attempts to determine attitudes of Libyan retail consumers, business firms and banks towards Islamic methods of finance. The thesis focuses primarily on the process leading to attitude toward the behaviour (the potential use of Islamic methods of finance). In fact there are two reasons for the ignorance of subjective norm factor in TRA; (i) there are no Islamic methods of finance applied in official manner in Libya such as Islamic banking is to be affected in use by referents, and (ii) the thesis surveys consumers on their attitudes towards potential use of Islamic method of finance. In addition, according to Davis, Bagozzi and Warshaw (1989, p. 986), subjective norms is omitted from the model due to its uncertain theoretical and psychometric status.

Accordingly, in this thesis attitude is derived from a group of beliefs that one holds about the object of the potential behaviour and valanced evaluations of the beliefs. Attitude can be used to predict behavioural intention with determining the relative importance of attitudinal components. Behavioural intention can be used to predict potential behaviour (potential use of Islamic methods of finance). Awareness of Islamic methods of finance and demographic profiles is used as external variables. The proposed and modified model adopted from Ajzen and Fishbein's (1980) TRA framework is presented in Figure 5.3.

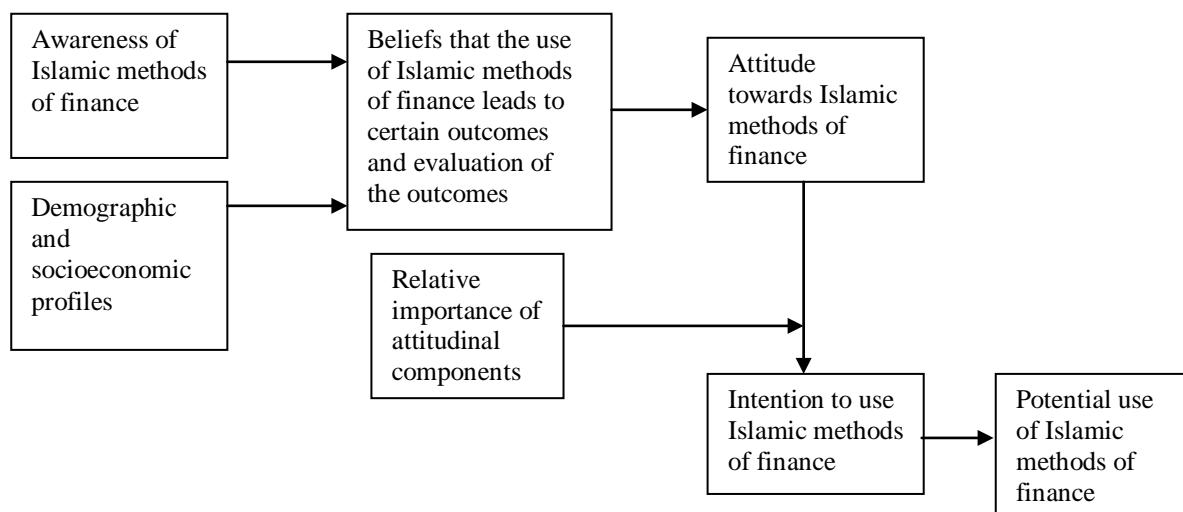


Figure 5.3: The Modified and Proposed Theoretical Framework

### 5.2.1 Importance of the TRA

The TRA's strength lies in its ability to express how particular internal and external factors work together, which in turn then explains why people will or will not perform specific behaviour. According to TRA model, the strength of one's intention toward a

specific behaviour is influenced by particular prior existing factors. Ajzen and Fishbein (1980) trace the performance of a particular behaviour backward to the origins of those influences, which will subsequently affect the ultimate behaviour. In other words Baker, Morrison, Carter and Vernon (1996, p.531) wrote, “The TRA suggests that an individual’s intention to perform a specific behaviour is a linear function of his or her affective response to performing the behaviour (attitudes) and perceived social norms about the behaviour. Attitudes are, in turn, predicted by the individual’s beliefs about the likelihood and the evaluation of the consequences of performing the behaviour (outcome beliefs). Perceived social norms are based on the individual’s beliefs about the wishes of relevant specific referents and his or her desire to conform to those norms (normative beliefs). All other variables are assumed to influence intention, and hence future behaviour, through attitude and social norm”. Clearly, actual behaviour can be predicted by measuring one’s intention to perform the behaviour. One’s intention to perform the behaviour is predicated on the attitude toward the behaviour, the relative importance of attitudinal and normative considerations and subjective norms. One’s attitude to the behaviour is influenced by beliefs that the behaviour leads to certain outcomes and evaluations of these outcomes. The subjective norms are influenced by beliefs held by an individual that specific individuals or group (referents) think one should or should not perform the behaviour and the individual’s motivation to comply with specific referents.

From people group perspective, people intend to perform the same or similar behaviour; TRA can be used to predict behaviour of a well-defined group of people. Measuring the intention of a group of people to perform a particular behaviour could be an accurate measure of the likelihood of the group’s intention to perform the behaviour since people are in varying stages of willingness to perform the behaviour. The accurate prediction arising from measuring a group’s intention to perform a specific behaviour as postulated by Ajzen and Fishbien has important implications for this research to predict potential use of Islamic methods of lending by Libyan retail consumers, business firms and banks. With accurate prediction of these groups’ attitudes towards potential use of Islamic methods of lending, this study can indicate effective contributions for literature and Libyan governmental policies.

### **5.2.2 Conceptual Model, Research Questions and Hypotheses**

Focusing on potential use of Islamic methods of finance intention, Libyan attitudes towards potential use of Islamic methods of finance, external variables’ influence on

potential use of Islamic methods of finance intention and using a modified version of Ajzen's and Fishbein's TRA as the basis for the conceptual model, the major research question of the study enquires about how the Theory of Reasoned Action can be used for predicting and understanding the attitudes towards the potential use of Islamic methods of finance among Libyan retail consumers, business firms and banks. In particular, the following four research questions are developed from this major research question as follows: Q1. Does awareness of Islamic methods of finance influence the attitudes of Libyan retail consumers, business firms and banks towards the potential use of Islamic methods of finance? Q2. Do socioeconomic and demographic factors influence Libyan retail consumers, business firms and banks attitudes towards the potential use of Islamic methods of finance? Q3. What are the principal motivating factors towards the potential use of Islamic methods of finance by retail consumers, business firms and banks? Q4. Is religion a major influence on the likelihood of engaging in Islamic finance by retail consumers, business firms and banks?

Since this thesis examines the attitudes of Libyans towards Islamic methods of finance by focusing on retail consumers, business firms and banks based on previous theoretical framework and research questions, the attitudes of groups are investigated from several perspectives, including the level of awareness, the impact of demographic and socioeconomic profiles, motivating factors for potential use of Islamic methods of finance, relative importance of motivating factors, potential use of Islamic methods of finance and the probability of applying Islamic methods of finance. More particularly and based on the research questions and review of the previous literature in Chapter 4, the following specific hypotheses are proposed.

### **5.2.2.1 Hypotheses for Libyan Retail Consumers**

#### **Level of Awareness**

In Islamic banking context, awareness is knowledge or understanding of different products and services offered by Islamic bank, as well as to what extent these products and services are actually used by consumers (Naser, Jamal and Al-Khatib 1999). Consumers' awareness and knowledge regarding Islamic methods of finance is a common focus of past research focusing on attitudes towards Islamic banking. Most of these studies, include Okumus (2005), Bley and Kuehn (2004), Hamid and Nordin (2001), Naser, Jamal and Al-Khatib (1999), and Haron, Ahmad and Planisek (1994) indicate that consumers are aware of the existence of Islamic banks. However these consumers and potential consumers generally were unaware regarding the use of

specific Islamic methods of finance. In addition, awareness of Islamic methods of finance represents an external variable in the above modified and proposed theoretical framework in accordance with the TRA. Accordingly, this external variable has indirect impact on consumers' attitudes towards Islamic methods of finance. Therefore, the first hypothesis for Libyan retail consumers is proposed as follows:

**H1.** Libyan retail consumers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance.

### **Demographic and Socioeconomic Profiles**

The impact of demographic and socioeconomic variables on the attitudes of retail consumers towards Islamic methods of finance has been considered by many scholars including Okumus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2002), Naser, Jamal and Al-Khatib (1999), and Hegazy (1995). In general, the results of these studies suggest that the elderly and public servants prefer to deal with Islamic banks over conventional banks, as did those with relatively low incomes and a moderate level of education. Based on these results, a hypothesis for this is proposed as follows:

**H2.** Libyan retail consumers' socioeconomic and demographic factors influence the potential use of Islamic methods of finance.

### **Beliefs - Outcomes**

In the context of this thesis, beliefs that the use of Islamic methods of finance leads to certain outcomes and evaluation of the outcomes represent motivating factors for the use of Islamic methods of finance (Zainuddin, Jahys and Ramayah 2004). In addition, previous studies have shown that religious factor is most significant element among the common motivating factors influencing retail consumers' attitudes towards Islamic methods of finance (Okumus 2005; Metawa and Almossawi 1998; Metwally 1996; Omer 1992). Regarding the motivating factors for Libyan retail consumers' potential use of Islamic banks' services and products, most of the studies that included in literature review used several correlated variables to determine these motivating factors. Hence, in order to determine motivating factors for Libyan retail consumers, a third hypothesis is proposed as follows:

**H3.** Various motivating factors influence the potential use of Islamic methods of finance by Libyan retail consumers.

### **Attitude - Intention - Behaviour**

When attitude concerns a specific behaviour such as using financial method, the relationship among attitudes, intention and behaviour will be stronger (Fishbein and

Ajzen 1975; Davis, Bogozzi and Warshaw 1989). Empirically, attitudes towards Islamic methods of finance is highly considered by Muslims compared to non-Muslims in past retail consumers studies. According to Zainuddin, Jahys and Ramayah (2004), Bley and Kuehn (2004), Gerrard and Cunningham (1997), Metwally (1996), Hegazy (1995), and Haron, Ahmad and Planisek (1994) the consumer's religion plays a significant role in their preferences for Islamic methods of finance. Hence, they found that most consumers prefer to deal with Islamic banks are Muslims. While examining of attitudes of consumers towards Islamic methods of finance is studied in several aspects such as consumers' satisfaction and impact of demographic variables on their attitudes, there is no study conducted to determine the probability of applying Islamic methods of finance by retail consumers. Based on the theoretical and empirical support and since the majority of Libyans are Muslims, the following hypothesis is proposed:

**H4.** Religion is a major influence on the likelihood of engaging in Islamic finance by Libyan retail consumers.

### **5.2.2.2 Hypotheses for Libyan Business Firms**

While the determination of retail consumers' attitudes towards Islamic banking has been studied by many researchers in Muslim and non-Muslim countries, alike there is relatively little literature concerning business firms' attitudes towards Islamic banking. The exceptions being by Ahmad and Haron (2002), Jalaluddin (1999a), Jalaluddin and Metwally (1999) and Edris (1997). Based on these studies and in accordance with the ideas discusses in the hypotheses for retail consumers, four hypotheses are proposed to test attitudes of Libyan business firms as follows:

**H1.** Libyan business firms managers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance.

**H2.** Libyan business firms' socioeconomic and demographic factors influence the potential use of Islamic methods of finance.

**H3.** Various motivating factors influence the potential use of Islamic methods of finance by Libyan business firms.

**H4.** Religion is a major influence on the likelihood of engaging in Islamic finance by Libyan business firms.

### **5.2.2.3 Hypotheses for Libyan Banks**

In the previous literature, only two known studies have considered the attitudes of financial institutions towards Islamic methods of finance. In the first study, Jalaluddin

(1999b) interviews eighty Australian financial institutions based in Sydney on their attitudes towards the profit/loss sharing methods of (Islamic) finance and whether they would agree to lend funds in accordance with these methods. In the second study, Karbhari, Naser and Shahin (2004) undertakes focused interviews with financial institutions in London to investigate their attitudes towards the problems, challenges and opportunities facing Islamic banks in the United Kingdom. Based on this researcher and the hypotheses previously proposed, four hypotheses are made in order to test the attitudes of Libyan banks as follows:

- H1.** Libyan banks managers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance.
- H2.** Libyan banks' socioeconomic and demographic factors influence the potential use of Islamic methods of finance.
- H3.** Various motivating factors influence the potential use of Islamic methods of finance by Libyan banks.
- H4.** Religion is a major influence on the likelihood of engaging in Islamic finance by Libyan banks.

### 5.2.3 Hypothesised Relationships in the Theoretical Framework

In accordance with studies include Zainuddin, Jahys and Ramayah (2004) and Patterson (2004) who use TRA to investigate consumers and firms' attitudes, the proposed hypothesised relationships are displayed in the Figure 5.4.

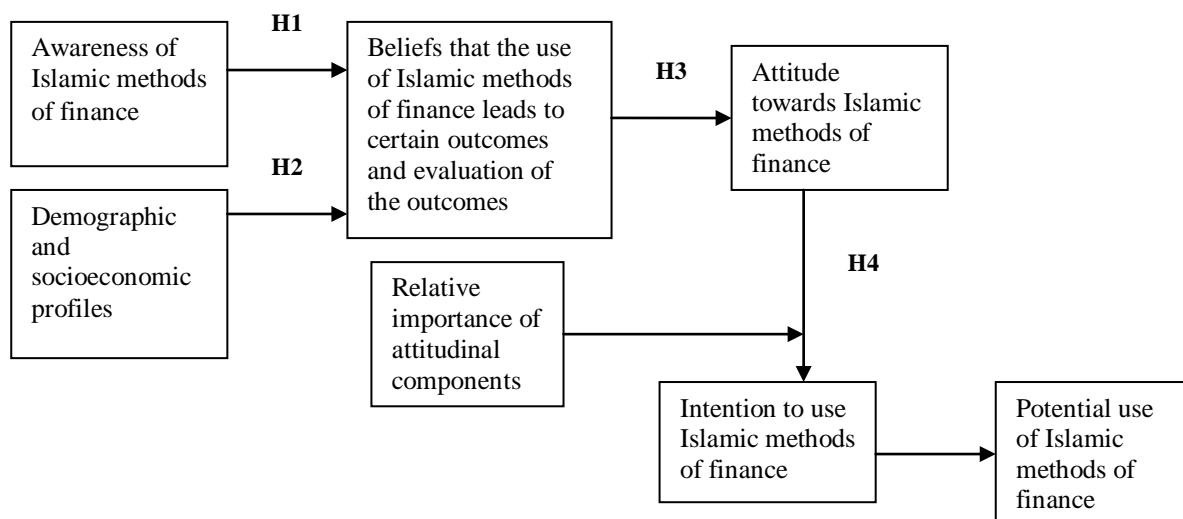


Figure 5.4: Hypothesised Relationships among the Determinants of Libyan Retail Consumers, Business Firms and Banks towards Islamic Methods of Finance.

#### **5.2.4 Variables Specification**

As mentioned above, investigates the essential variables that are determined as the components of the proposed theoretical framework for this study in accordance with Ajzen and Fishbein's (1980) TRA framework, including the external variables such as awareness of Islamic methods of finance and demographic and socioeconomic profiles. These variables can be classified as two major types of variables: (i) independent variables (ii) dependent variables.

#### **Independent Variables**

The following three independent variables are illustrated in this thesis:

1. Awareness of Islamic methods of finance is defined as a consumer understands of different products and services offered by Islamic bank with actual practice for these products and services. This variable is used in this thesis as an independent variable to test the relationship between consumers' level of awareness and the potential use of Islamic methods of finance.
2. Demographic and socioeconomic profiles are collected for each group in this study to test the impact of these external profiles on potential use of Islamic methods of finance.
3. Attitude toward Islamic methods of finance is defined as a consumer's feeling of favourableness or unfavourableness toward potential use of Islamic methods of finance. According to Ajzen and Fishbein's (1980) TRA, the construct of attitude is determined as salient beliefs that the use of Islamic methods of finance leads to certain outcomes and evaluation of these outcomes.

#### **Dependent Variables**

The consumer's intention to use Islamic methods of finance is defined as the subjective probability that consumers will use Islamic methods of finance. This variable is used as a dependent variable to test the impact of demographic profiles on the potential use of Islamic methods of finance, important factors for potential use of Islamic methods of finance and the probability of applying Islamic methods of finance.

### **5.3 Research Framework**

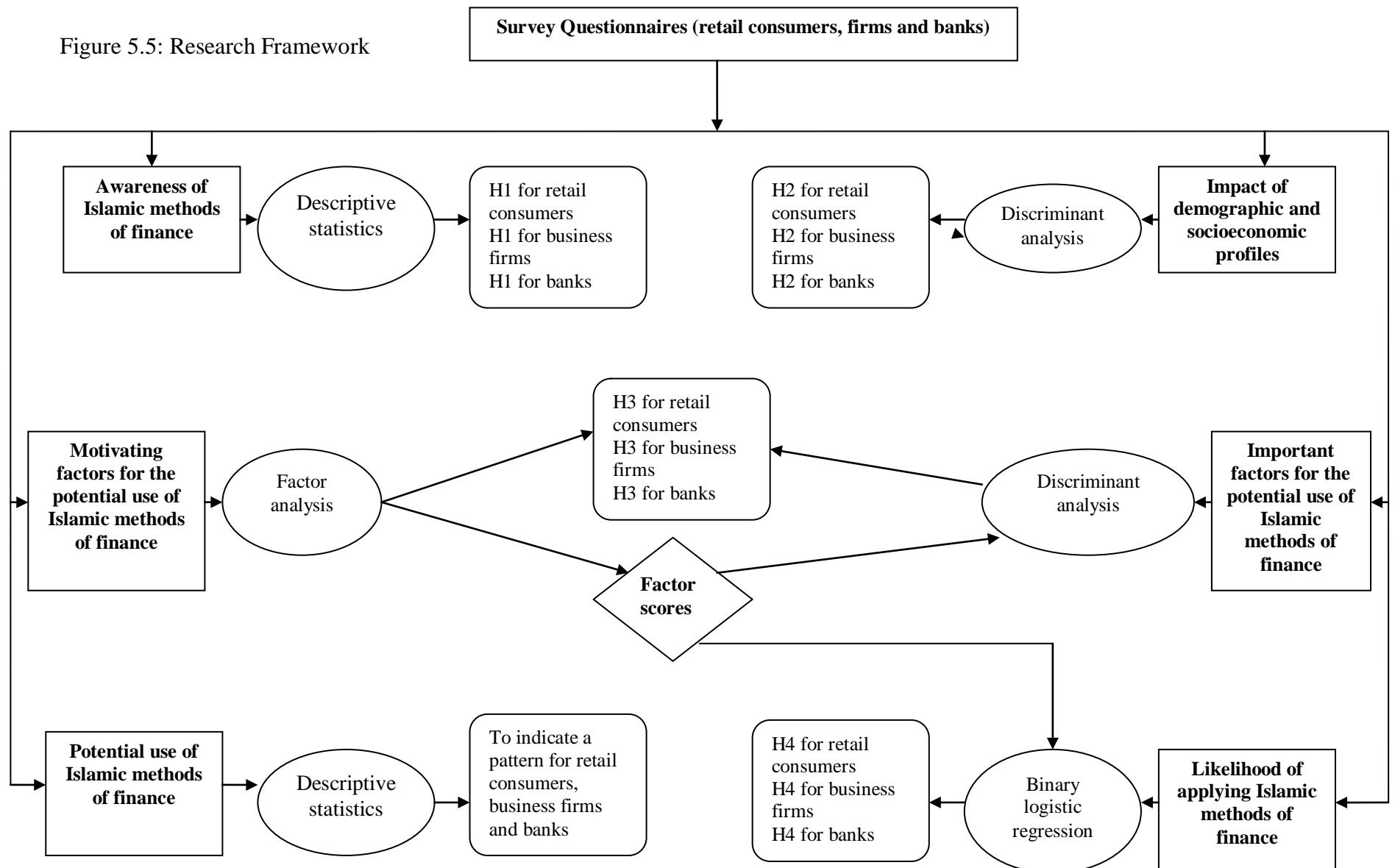
Figure 5.5 depicts the research framework used in this thesis. A self-administrated questionnaire is designed and used to measure the attitudes of Libyan retail consumers, business firms and banks towards Islamic methods of finance. In particularly, three questionnaires are used to examine awareness of Islamic methods of finance, which would influence consumer's attitude towards potential use of Islamic methods of

financing, the impact of demographic and socioeconomic profiles on Libyan attitudes towards Islamic methods of finance, motivating factors for potential use of Islamic methods of finance, relative importance of motivating factors, potential use of Islamic methods of finance and the likelihood of applying Islamic methods of finance in Libya.

The research framework has six steps in order to achieve all this study's aims. First, descriptive statistics commonly is used to describe the basic features of specific data to provide simple summaries about sample characteristics or to indicate relationships between variables. For example, descriptive statistics was used by Okumbis (2005), Zainuddin, Jahys and Ramayah (2004), Hamid and Nordin (2001), and Naser, Jamal and Al-Khatib (1999) to describe the sample characteristics in their studies in order to illustrate specific results about retail consumers' attitudes towards Islamic banking. In this study, descriptive statistics is used to indicate a pattern for the influence of awareness of Islamic methods of finance for Libyan retail consumers, business firms and banks. In particular, the first hypothesis is tested using descriptive statistics for each of the previous categories.

Second, discriminant analysis as a multivariate technique is used to test the impact of demographic and socioeconomic characteristics of consumers' decisions regarding financial issues. For example Ghazali and Mutum (2006) used discriminant analysis to discriminate between online shoppers and non online shoppers according to their demographic characteristics. Also, Metwally (2002) studied impact of demographic variables on customers' selection of a specific bank within a dual-banking system. Hence, the discriminant analysis is employed in this study to examine the impact of demographic and socioeconomic profiles of Libyan retail consumers, business firms and banks on their attitudes towards Islamic methods of finance. More specifically, the second hypothesis is tested using discriminant analysis for each of the previous categories.

Figure 5.5: Research Framework



Third, factor analysis is an interdependence multivariate analysis method that takes a large number of variables and attempts to find a small number of factors in common which account for any interrelations (Tabachnick and Fidell 2001, p. 607). In instance, Al-Sultan (1999), Gerrard and Cunningham (1997), and Metwally (1996) used factor analysis in their studies to reduce variables for determining consumers' attitudes towards Islamic banking. Therefore, factor analysis is employed as a third step in this study to reduce many independent correlated variables (reasons for potential use of Islamic method of finance by Libyan retail consumers, business firms and banks) to a number of manageable motivating factors with their scores. In particular, the third hypothesis is tested using factor analysis for each of the previous categories. According to Hair, Anderson, Tatham and Black (1995) these factor scores can be used in a subsequent multivariate analysis such as discriminant analysis or logistic regression, especially if the data will be used for original sample. Thus, factor scores is used as the explanatory variables in the two subsequent multivariate techniques namely discriminant analysis and a binary logistic regression.

Fourth, according to Malhotra (2002, p. 585), discriminant analysis is a statistical technique for analysing data when the criterion or dependent variable is categorical and the predictor or independent variables are interval in nature. Also, factor scores is used instead of independent variables in many studies such as Metwally (2003), and Curhan and Kopp (1988) who have been focused on determining the importance of motivating factors for the potential use of methods of finance. Accordingly, and once again the discriminant analysis is implemented using factor scores with the primary goal of determining which of those motivating factors represents the primary motivation for Libyan retail consumers, business firms and banks to use Islamic methods of finance

Fifth, according to Zainuddin, Jahys and Ramayah (2004), an individual's attitude represents an individual's personal conviction and feelings towards a specific behaviour. Generally, a person who believes that performing a given behaviour will lead to positive outcomes will hold a favourable attitude toward performing the behaviour. On the other hand, a person who believes that performing a given behaviour will lead to negative outcomes will hold an unfavourable attitude toward performing the behaviour. Accordingly, this attitude has both positive and negative effect to determine behavioural intention (Ajzen and Fishbein's 1980). Therefore, and once again descriptive statistics is used to indicate potential use of Islamic methods of finance in Libya.

In final step, the binary logistic regression is performed using factor scores to test the likelihood of applying Islamic methods of finance in Libya by retail consumers, business firms and banks. In particularly, the fourth hypothesis is tested using a binary logistic regression for each of the previous categories. This in accordance with several studies that required the researcher to predict the values of a binary dependent variable from a set of independent variable or factor scores such as social research including Gonzalez, Casas and Coenders (2007), Salam and Noguchi (2005), and Matwally and Prasad (2004).

#### **5.4 Survey Design and Questionnaires**

This thesis uses survey research to gather data as the primary data to achieve its objectives. This thesis focuses on the attitudes and perceptions of Libyan retail consumers, business firms and banks towards Islamic methods of finance. The first target population of the study are Libyan retail consumers living in Libya's biggest four cities; Tripoli, Benghazi, Misratah and Al Murgub (accounting more than half of the Libyan population). The second target population are private business firms in these cities without including public firms. The final target population are all Libyan banking institutions comprising 6 state banks, 4 private banks and 4 specialised banks that may agree to open specific windows to offer Islamic methods of finance. Since this study is a comprehensive research about attitudes towards Islamic methods of finance in Libya, the primary goal for data collection is to gather information about aspects of Libyan attitudes towards these methods of finance.

##### **5.4.1 The Survey Instrument**

In determining research attitudes, a self-administrated questionnaire has been the most common instrument used by researchers. For example, using self-administrated questionnaire to determine consumers' attitudes include Okumkus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2002), Hamid and Nordin (2001), Al-Sultan (1999), Naser, Jamal and Al-Khatib (1999), Metawa and Almossawi (1998), and Gerrard and Cunningham (1997). Accordingly, the present study uses self-administered questionnaires to collect information from Libyan retail consumers, business firms and banks. The questionnaires are prepared in both Arabic and English to ensure the effective collection of information. The relevant literature and survey instruments developed in past studies provide the basis for the questionnaires in the present study as shown in the questionnaires themselves in appendix B, C and D. The next discussion involves the construction of a set of items that are related to each variable.

### **Awareness Variable**

The first section of the questionnaire is designed to gather information about consumers' knowledge related to the existence of Islamic banking worldwide and their awareness of Islamic methods of finance. Three items are used similarly for respondents of Libyan retail consumers, business firms and banks to explore their knowledge and awareness regarding these issues. The first item is a closed single question which adopted from studies of Hamid and Nordin (2001) and Haron, Ahmad and Planisek (1994) to collect whether they know or not about Islamic banking. Regarding awareness of Islamic methods of finance, respondents are asked two questions, firstly a rephrasing closed multiple choice question which is developed from studies of Zainuddin, Jahys and Ramayah (2004), Hamid and Nordin (2001) and Gerrard and Cunningham (1997) to indicate if they have a clear knowledge about common types of Islamic methods of finance. Secondly, while there is no financial institutions offer Islamic methods of finance in Libya, the researcher's experience and the focus group discussion illustrate that Islamic methods of finance can be practiced individually in unofficial basis. Thus, respondents are asked a closed multiple choice question after rephrasing it to be more appropriate from some studies including Zainuddin, Jahys and Ramayah (2004) and Hamid and Nordin (2001) to test respondents' usage of Islamic methods of finance. The attitudes and demographic variables are explained as follows:

### **Attitude - Intention Variables**

The second section of the questionnaire is used to gauge attitudes towards Islamic methods of finance. Based on The Theory of Reasoned Action (Ajzen and Fishbein 1980), attitude toward the behaviour is jointly determined by one's salient beliefs that the behaviour leads to certain outcomes and by that person's evaluation of these outcomes. Therefore, respondents are asked several questions as statements regarding Islamic methods of finance to determine their attitudes in terms of their beliefs and evaluations of Islamic methods of finance. According to Malhotra (2006, p. 302), and Ajzen and Fishbein (1980) a seven-point Likert scale is best suited to examine attitudes towards products and services. Accordingly, a seven-point Likert scale with responses ranging from 1 to 7 is used in the second sections for those three groups of respondents where 1 is not important at all and 7 is very important.

Respondents are asked to determine their personal degree of importance for several statements that represent reasons or motivations for potential use of Islamic methods of finance by Libyan retail consumers, business firms and banks. Sixteen items as

statements are adopted from Al-Sultan (1999) and Jalaluddin (1999a) to develop and use them in order to know Libyan retail consumers attitudes towards potential use of Islamic methods of finance. A search at the existing questionnaire in Jalaluddin (1999a) helps to improve eighteen items also to determine Libyan business firms' attitudes towards potential use of Islamic methods of finance. Libyan banks attitudes for using Islamic methods of finance are determined using fourteen items adopted from Jalaluddin (1999b). These statements are used as explanatory variables in factor analysis technique to obtain manageable factors that represent main determinations for all groups' attitudes towards Islamic methods of finance. Empirically, these factors are used in discriminant analysis and binary logistic regression as shown in the previous framework.

The second section in each questionnaire for three groups ends with (yes-no) question which was adopted from Jalaluddin (1999a) and Zainuddin, Jahys and Ramayah (2004) to indicate their intentions to use Islamic methods of finance. Intention variable is measured by one closed (yes-no) question. The dichotomous key question indicated the two-point rating scale, where 0 = No, 1 = Yes.

### **Demographic- Socioeconomic Variables**

The final section of the questionnaire relates to the demographic and socioeconomic characteristics variables. In terms of demographic and socioeconomic profiles, findings from across a number of studies including Okumkus (2005), Zainuddin, Jahys and Ramayah (2004), Metwally (2002), Al-Sultan (1999), Jalaluddin (1999a), and Jalaluddin (1999b) indicate that these variables have noticeable impact in determining attitudes towards Islamic methods of finance. Thus, respondents are asked about their demographic and socioeconomic characteristics with several items that would discriminate between them in term of potential use of Islamic methods of finance. These items regard to retail consumers (such as age, income and profession), general information for business firms (such as category of business, years of work and total assets), and general information on banking institutions for Libyan banks (such as type of bank and years of work). Items in this section are the most widespread variables used in literature to collect general information about respondents.

#### **5.4.2 Validity and Reliability**

Content validity represents "...the degree to which elements of a measurement instrument is relevant to and representative of the targeted construct for a particular assessment purpose" (Haynes, Richard and Kubany 1995, p. 238). In order to ensure the

content validity of this thesis's questionnaires, several steps are taken into account before using these questionnaires in data collection. First, the questionnaires items are derived and developed from the past literature related to the field of consumers' attitudes towards Islamic banking and the researcher's supervision team views played a helpful role for designing these questionnaires. The instrument is verified by two experts to ensure the content and face validity of the questionnaires. More particularly, two meeting were held between the researcher and his supervisor in the presence two experts from statistic department at the university to discuss and obtain effective feedback about the constructing of the instrument.

To address ethical issues arising from the questionnaires, a Human Ethics application and the questionnaires themselves were submitted and approved by the University's Human Research Ethics Committee prior to commencing the research. In addition, before going into data collection, preparation and analysis, focus groups were interviewed. These groups had a size of 20 (pre-screened) respondents representing about 5% of each sample category. When reviewing past literature, most studies reported the main data collection methods as a self-administered mail survey. While this method suffers from several disadvantages such as low response rates, response accuracy, no opportunity for probing or explanation, lack of control over how respondents answer the questionnaire, and slow collection of data (Zikmund 2003; Dillman 2000). Therefore, to ensure speed of data collection, control of sample, good flexibility, and reasonable cost, data was collected by filling the questionnaires through telephone interviews (Hawes, Rao and Baker 1993, p. 64). This method offers the researcher the opportunity to reduce any potential respondent confusion about the questions asked and to obtain a relatively high rate of cooperation.

Reliability analysis is conducted to test the reliability of the measurement scales used in questionnaires. According to Norusis (2005, p. 425) the reliability of a test is a measure of the correlation between scores on the test and the hypothetical true value. The common method of estimating reliability is internal consistency or scale reliability. This is the degree to which items on the same test measure the same thing. A commonly used measure of internal consistency for scale items is reliability analysis (Cronbach's alpha). The Cronbach's alpha with all scales should display a high degree of internal consistency with values greater than the minimum of 0.70 (Netemeyer, Bearden and Sharma 2003). The Cronbach alpha for scales of Libyan retail consumers is (0.90), for Libyan business firms' scales is (0.92), and for Libyan banks scales is (0.94). The

values for the Cronbach alpha (over 0.80) are good and acceptable values to go a head in this thesis according to Norusis (2005, p. 430).

### **5.4.3 Conduct of Survey**

In order to gather data effectively, questionnaires were administrated with the help of a trained personnel team. The three months from December of 2007 to January/ February 2008 were chosen as the data collection time due to the fact that these months represent the winter session in Libya when people would usually be available for an extended period of long holidays. Following the focus group interviews, a survey was designed in final draft in Arabic and conducted using phone interviews to collect data from Libyan retail consumers, business firms and banks.

For retail consumers, since there are six working days per week in Libya with seven hours work each day from 7: 30 am to 2: 30 pm, the evening time from 4: 00 pm to 9: 00 pm is chosen to conduct phone interviews. During the three months of the data collection, all sample size questionnaires (385) are completed effectively and used in the data analysis. However, it is worth noting that many respondents were unsatisfied with the study's question asked about their monthly income and refusing to answer. Clearly, this result in missing data for this question, but when the number was not successful the next number on the same page was dialled which allowed the researcher obtaining a complete sample data.

The business firm questionnaire was conducted using phone interviews during the three months of data collection on working days from 7: 30 am to 2: 30 pm. Only 296 questionnaires had complete answers according to effort of researcher during the period of data collection. Most of missing data concerns aspects of each firm's economic profile such as total assets, liabilities and the share capital. This missing data is associated with the respondent's refusing to answer or for absence of financial reports in those business firms. In order to analyse the data and solve missing data problem, the common method is used regarding questionnaires with missing data is using just complete questionnaires (Hair, Anderson, Tatham and Black 1998). Accordingly, this study uses only complete responses to questionnaires.

The bank questionnaires were completed using phone interviews during the data collection time on working days from 7: 30 am to 2: 30 pm. Since these interviews are administered to directors or managers of banks who are usually busy with many responsibilities that negatively affect the possibility of obtaining them by phone, the

researcher faced some difficulties in completing all questionnaires of Libyan banks. Refusing to answer sometimes or where a manager was on leave as well as incomplete questionnaires reduced the usable number of questionnaires to 134. Over all responses rates were 100 % for retail consumers, 76.9 % for business firms, and 63.8 % for banks with effectively complete questionnaires.

### **5.5 Sampling**

Since this thesis is a comprehensive analysis of Libyan attitudes towards Islamic methods of finance, the target population of this study is divided into three types of respondents. These are retail consumers, business firms and banks. As known, the determination of sample size is commonly dependent on the statistical precision required by the researchers and a number of variables play an important role in determining the sample size. According to Hair, Anderson, Tatham and Black (1998) a sample size between 200 and 400 is usually acceptable as critical sample size for attitudes studies. Therefore, in order to calculate the sample size for a questionnaire, the following three factors should be considered; (i) the amount of variability believed to be in the population, (ii) the desired accuracy and (iii) the level of confidence required in the estimates of the population values (Burns and Bush 1995). The formula for calculating the minimum sample size is  $N = \pi(1-\pi)Z^2 / E^2$  where N is the sample size,  $\pi$  is estimated variability in the population, Z is standard error associated with chosen level of confidence and E is the acceptable error (Waters 1994).

The sample of consumers and business firms was determined in accordance with a 95 per cent confidence level. Therefore the sample size of the survey for each type was 385 which were determined using the following assumptions: proportion ( $\pi$ ) equals to 0.5, this is the safest possible assumption, a confidence level of 95% which corresponds to Z-value of 1.96 and an error or precision (E) of 0.05. Given the above assumptions, the sample size N is estimated by  $N = \pi(1-\pi)Z^2 / E^2 = (0.5)(0.5)(1.96)^2 / (0.05)^2 = 384.16$ . Therefore, the sample size was 385 respondents for retail consumers and N = 385 respondents for business firms. However, since there are limited banking institutions in Libya, the sample of the survey involved all Libyan banking institutions comprising (6 state banks), (4 private banks) and (4 specialised banks).

According to Malhotra and Birks (2003, p. 369) systematic sampling technique can be the best way than other techniques for selection a sample which aims to examine attitudes of customers towards services and products. In particular, when there is a need

for ordering the population in accordance with related characteristic especially with using phone interviews. Therefore, this study used systematic sampling technique for Libyan retail consumers and business firms. However, for banks, all Libyan banks are included in this study's sample.

For the retail consumers, the telephone directory is used as a sampling frame for the biggest four cities in Libya (Tripoli, Benghazi, Misratah and Al Murgub, together accounting more than half for the Libyan population) to select the sample. A reasonable assumption, therefore, is that most of the entire households' phones numbers were listed in the telephone directory of these four cities. Thus, all private numbers in telephone directory were regarded as a population size ( $P$ ). A sample interval ( $I$ ) =  $P/N$  (385) was calculated. Also, starting point was selected randomly between 1 to ( $I$ ) to use in picking every  $i$ th element in succession from the sampling frame. The telephone directory listed 79,056 private numbers in these cities. This is regarded as a population size (i.e.  $P = 79,056$ ) in this study. Dividing  $P$  by the sample size  $N = 385$ , yields a sample interval of 205. A random number between 1 and 205 was selected using the table of random numbers (Malhotra and Birks 2003, p. 745). As this number was 48 and the sample consisted of elements 48, 253, 458, 663 and so on. Using the telephone book as a sampling frame, the elements are alphabetically organized. The assumption underlying the potential bias was that some interviews could be incomplete due to several reasons such as not responding number and refusing interview. When the number is not successful the next number on the same page is dialled in order to avoid missing any respondents.

For the business firms, from a Chamber of Commerce and Industry in each of the four biggest cities in Libya, all private business firms have been obtained with their phone numbers. The list of the business firms has been organized in accordance with the number of the population in each city from the biggest to smallest (Tripoli, Benghazi, Misratah and Al Murgub). The total number of the business firms in this list is 7,011 firms ( $P$ ) and this is specified as the population size of the business firms. Using systematic sampling technique, dividing  $N$  by the sample size  $N = 385$ , a sample interval approximately of 18. A random number between 1 and 18 was selected using the table of random numbers (McDaniel and Gates 2005, p. 505). This number was 6 and the sample consisted of elements 6, 24, 42, 60 and so on. Phone interviews were conducted for selected business firms using their listed phone numbers. The assumption considering the potential bias in firm's context was that a number of Libyan firms'

respondent could refuse to answer this study's questions for any reasons. Accordingly, when the number is not successful the next number on the same page in the business firms list was dialled.

For the banks, due to the fact that Libya still has a relatively small banking system with limited financial institutions, this study considered all Libyan banks in the sample. Therefore, six state banks, four private banks and four specialised banks in Libya are involved to gather their attitudes towards applying Islamic methods of finance. For these banks, the general director, director of credit and investment, and director of marketing, in the headquarters of each bank were included, as well as, the manager, acting manager and head of the credit and investment department in each of the biggest branch in Libya's four largest cities. In total, 210 respondents for Libyan banks were regarded as the sample size.

## **5.6 Analytical Techniques**

Three types of statistical techniques were undertaken, discriminant analysis, factor analysis, and a binary logistic regression analysis. Data were entered into the Statistical Package for Social Sciences SPSS Version 15.

### **5.6.1 Discriminant Analysis Technique**

The primary goal of discriminant analysis was to develop a valid and reliable model to predict and explain the value of a categorical dependent variable. For example, the dependent variable was coded as a series of integer values representing two groups, one of which would prefer to use a particular method of finance. The predictor or independent variables in this situation were the ratings on some salient characteristics of this specific method of finance. In addition, discriminant analysis estimates discriminant functions that were linear combinations of the predictor variables which were the best discriminant between the categories of the criterion variable or groups. This analysis also examined whether significant differences existed among the groups, determines which predictor contributed to most of the intergroup differences and evaluated the accuracy of classification of groups (Metwally 2000; Sinclair and Stalling 1990).

However, discriminant analysis differs from regression analysis and the analysis of variance (ANOVA). Even though all of these have a single dependent variable and multiple independent variables, the nature of these variables were different. In regression analysis and ANOVA, the dependent variable was interval in nature whereas in discriminant analysis, it is categorical and consisted of groups. In addition, the

independent variables were categorical in the case of ANOVA, but metric in the case of the regression analysis and discriminant analysis (Malhotra and Birks 2003, p. 548). The first step in discriminant analysis was the formulation of the research problem by identifying the dependent variable and the predictor variables. The criterion variable must consist of two or more mutually exclusive and collectively exhaustive categories. The predictor variables were selected as based on a theoretical model or previous research or the experience of the researcher (Metwally 2000).

In addition, according to Hair, Anderson, Tatham and Black (1995) and Curhan and Kopp (1988), it is suitable to use factor scores that come out from applying factor analysis on set of predictor variables in subsequent multivariate analysis such as discriminant analysis, especially if the data is used for the same sample. To estimate the discriminant function coefficients there are two broad approaches available; the direct method and the stepwise discriminant analysis. In the direct method, all predictor variables are included simultaneously to estimate the discriminant function coefficients. In this case, each independent variable is included regardless of its discriminating power. This approach is suitable when the researcher desires the discrimination to be based on all independent variables. However, in stepwise discriminant analysis, the predictor variables are entered sequentially and based on their ability to discriminate among groups. This approach is useful when the researcher wants to select the predictors to be included in the discriminant function (Malhotra 1996).

Moreover, there are several assumptions needed to discriminant analysis such as normality of the independent variables, linearity of the underlying relationships, a lack of multicollinearity among independent variables, and equal dispersion matrices (Hair, Anderson, Tatham and Black 998). The key assumptions for deriving the discriminant function are multivariate normality of the independent variables and unknown (but equal) dispersion and covariance structures for the groups as defined by the dependent variable. Multicollinearity means that two or more independent variables are highly correlated, thus one variable can be highly explained or predicted by the other variables (Norusis 2006, p. 278). As with any of the multivariate techniques employing a variate, an implicit assumption is that all relationships are linear. Finally, outliers can have substantial impact on the classification accuracy of discriminant analysis.

The interpretation of the discriminant coefficients is similar to the interpretation of multiple regression analysis. Clearly, the value of a coefficient for a specific predictor depends on the other predictors included in the discriminant function. In general,

predictors that have relatively large standardised coefficients contribute more to the discriminating power of the function compared to predictors with smaller coefficients. The signs of coefficients are arbitrary, however they indicate which variable values result in large and small function values and associate them with specific groups (Malhotra and Birks 2003; Morrison 1969).

Mathematically, discriminant function is a linear combination of the discriminating variables which are formed to satisfy certain conditions. Therefore, the discriminant analysis involves linear combinations that can be observed in the following model:

$$D = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_k X_k \quad (1)$$

Where:  $D$  is the discriminant score,  $b$  are discriminant coefficients or weight and  $X$  are explanatory variable or predictors. The coefficients ( $b$ ) are estimated, thus the groups differ as much as possible on the values of the discriminant function. This happens when the ratio of between-group sum of squares to within-group sum of squares for the discriminant scores is at a maximum and any other linear combination of the predictors will result in a smaller ratio. Furthermore, there is only one discriminant function in the case of two groups. However, in the case of several groups, the number of discriminant functions would increase in accordance with number of groups – 1. For instance, if there are 4 groups in discriminant analysis, the number of discriminant functions will be (4-1 = 3) three functions (Tacq 1997; Klecka 1980; Malhotra 2006).

In this thesis, discriminant analysis is used twice for each of Libyan retail consumers, business firms and banks, the first using with demographic and socioeconomic variables and the second for factor scores obtained by factor analysis. Firstly, Hypothesis 2 for each of Libyan retail consumers, business firms and banks are tested using discriminant analysis. Discriminant analysis is performed on the demographic and socioeconomic profiles of Libyan consumers, business firms and banks as explanatory variables to indicate which of these profiles account the most impact on their attitudes towards the use of Islamic methods of finance. The dependent variable is considered to be their agreement for using Islamic methods of finance, those who are prepared to apply Islamic methods of finance and those who do not.

Secondly, factor scores are used in discriminant analysis as explanatory variables with the primary goal of determining which of these factors account the most impact on the attitudes of Libyan retail consumers, business firms and banks towards the use of Islamic methods of finance. The agreement of respondents (retails, business firms and

banks) on the use of Islamic methods of finance is used as the dependent variable. Therefore, each one of the three types of consumers is divided into two groups: namely, those who agree to use and those who do not.

The use of SPSS indicates output of some statistical tests that are used to explain this technique's results as follows: the statistical significance of discriminant functions is determined using Wilks'  $\lambda$  which is the proportion of the variance not explained by differences between the groups. If all the Wilks' lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). The significant of the univariate ratios for predictors, when they considered individually is used to show the difference between groups. The pooled-covariance within-groups correlation matrix (the average of the separate covariance matrices for all the groups) is used to determine if there is multicollinearity among the predictors (Metwally 2000). Box's M is used to test homogeneity of variance-covariance matrices. In other words Box's M is used to reject or accept the null hypothesis that the covariance matrices are equal. Also, logs of the determinants of the variance-covariance matrices are used to confirm the test for this hypothesis. Moreover, eigenvalues (the ratio of between-group to within-group sums of squares), Wilks' lambda associated with the discriminant function, a chi-square value canonical correlations (the extent of association between the discriminant scores and the groups), standardized discriminant function coefficient (the multipliers of variables), group centroids (the mean values for the discriminant scores for all groups) and the classification matrix (containing the number of correctly classified and misclassified situations) are used in this discriminant analysis's empirical results (Norusis 2006).

### **5.6.2 Factor Analysis Technique**

Factor analysis is usually used in the social sciences by researchers to examine the interrelations among a set of variables. This is because in economic and marketing research there is potentially large number of correlated variables that can and should be reduced to a manageable level for policy and performance purposes. Also, factor analysis is a generic name given to a category of measures primarily used for data reduction and to identify underlying factors that explain the correlations among a set of variables (Metwally 2000; Kim and Mueller 1978; Gorsuch 1974).

However, there are some conditions that should be considered before factor analysis is used. First, the sample size should be at least 50 observations, the number of observations should be at least five times the number of variables to be analysed, the data matrix should have sufficient correlations between variables, and finally the sample should be homogeneous within groups whenever differing groups are expected in the sample (Metwally 2000, p. 58). For example, factor analysis can be used in product research to discern the brand attributes that influence consumer choice and in pricing studies to identify the characteristic of price-sensitive consumers (Metwally 2000). Motivations, to apply a specific method of finance can be also explored by asking a sample of respondents to evaluate the method on a series of correlated features on some different scales. These correlated variables can be analysed to determine the main factors underlying respondents' attitudes towards the method of finance. In other words, the correlated variables can be used to understand the main factors underlying their agreement with the application of methods of finance (Hair, Anderson, Tatham and Black 1995; Cureton and D'Agostino 1983).

According to Myers (1980), factor analysis is an interdependence technique in which variables are simultaneously considered and each is related to all others. This means that factor analysis is different compared to dependence techniques such as multiple regression, discriminant analysis and multivariate analysis of variance, where one or more variables are clearly considered dependent and all others are predictor or independent variables. In these dependence techniques, the factors are formed to maximise their predictive power, whereas the factors in factor analysis are formed to maximise their explanation of the entire set and not to predict a dependent variable (McDonald 1985).

While there are two possible methods to extract factors, common factor and principal component analyses, the aim of the principal component is to select a smaller number of components that explains as much as possible of the total variance (Afifi, Clark and May 2004). Also, factor scores that produced by principal component are correlations between the original variables and the factors and to understand the nature of a specific factor, squared factor scores indicate what percentage of the variance in an original variable is explained by a factor. In principal components analysis, the diagonal of the correlation matrix consists of unities and the total variance is brought into the factor matrix (Velicer 1990). In common factor analysis, the factors are estimated based only on the common variance and amounts of variance an original variable shares with all

other variables included in the analysis are inserted in the diagonal of the correlation matrix. This approach is suitable when the primary objective is to identify the underlying dimensions and common variance of interest (Lastovicka 1991). The principal components analysis is chosen in this thesis because it summarises most of the variance with the minimum number of factors for prediction purposes.

Mathematically, the factor analysis model is somewhat similar to a multiple regression equation where each variable is expressed as a linear combination of factors that are not actually observed. Therefore, the basic idea behind factor analysis is to describe a set of variables ( $X_1, X_2, X_3, \dots, X_n$ ) in terms of a smaller number of factors (Mulaik 1972). These small numbers of factors elucidate the relationship between these variables. According to Malhotra (2006) the covariation among the variables is described in terms of a small number of common factors plus a unique factor for each variable. If the variables are standardized, the factor model can be in the following equation:

$$Z_i = A_{i1}F_1 + A_{i2}F_2 + A_{i3}F_3 + \dots + A_{im}F_m + V_i U_i \quad (2)$$

where  $Z_i$  is ith variable with zero mean and unit variance,  $A_{i1,2,3}$  are multiple linearly combined coefficients of variable  $i$  on common factors,  $F$  is common factor,  $V_i$  is linearly combined coefficient of variable  $i$  on unique factor  $i$  on unique factor  $i$ ,  $U_i$  is unique factor for variable  $i$  and  $m$  is number of common factors.

In this thesis, factor analysis is employed on the explanatory variables related to the attitudes of the Libyan retail consumers, business firms and banks with the primary goal of data reduction. More particularly, the principal components method is used to test Hypothesis 3 for each of three groups (Hair, Anderson, Tatham and Black 1995). The correlation matrix is used to illustrate significant correlations among the explanatory variables. This will justify the appropriateness of factor analysis to reduce these variables to a small manageable number of factors. In addition, the coefficients on the diagonals of the anti-image correlation matrix are used to determine whether there is a need to eliminate some variables or not to confirm the adequacy of the factor model (Malhotra 2006; Metwally 2000).

Moreover, there are two other assumptions used to measure the appropriateness of the factor analysis. These are Bartlett's test of sphericity and the Kaiser-Myer-Olkin (KMO) measure of sampling adequacy. In the first method, the coefficient should be highly significant to use factor analysis. The KMO is used to examine the hypothesis that variables are uncorrelated in population or the population correlation matrix is an

identity matrix. The latter is an index applied to test the appropriateness of factor analysis. High values of KMO between (0.5 and 1.0) indicate that factor analysis is appropriate (Norusis 2006, Metwally 2000, Sharma 1996).

While the minimum number of factors can be determined by using several approaches such as eigenvalues, significance tests, percentage of variance accounted for, screed plot, split-half reliability, eigenvalues is the most commonly used approach (Malhotra 2002).. An eigenvalue of the factor is the amount of variance associated with the factor (Metwally 2000; Mardia 1997; Sharma 1996). Therefore, only factors that have eigenvalues greater than one are retained with all other factors excluded from the model and the cumulative percent of the variance that accounts for more than 50% of the total variance is considered to be acceptable in this technique's results (Norusis 2006, p.396). A variable with a factor loading of greater than or equal to 0.5 is considered to be of practical significance and included as a factor (Hair, Anderson, Tatham and Black 1998). In addition, According to Hair, Anderson, Tatham and Black (1995) and Curhan and Kopp (1988), factor scores produced by the principal components can be used in subsequent multivariate analysis such as discriminant analysis or regression, especially if the data is used for the same sample.

### **5.6.3 Binary Logistic Regression Technique**

Many studies require the researcher to predict the values of a binary dependent variable from a set of independent variables. Multiple regression and discriminant analysis are two related techniques that come to mind here. However, these statistical methods have difficulties when the dependent variable can have only two values; an event occurring or not occurring (Hosmer and Lemeshow 2000). According to Norusis (2005, p. 315) the binary logistic regression is most frequently used to model the probability that an event occurs. This technique is similar to multiple regression analysis in that one or more explanatory variables are used to predict a single dependent variable. The difference is that the dependent variable in the binary logistic regression is categorical (dichotomous) while it is metric in the multiple regression analysis. Also, unlike multiple regression analysis which has limitations in regards to the distributional requirements of the predictors, the binary logistic regression does not produce negative predicted probabilities (Kleinbaum and Klein 2002).

In addition, the binary logistic regression is distinguished from discriminant analysis primarily in that the binary logistic regression accommodates all types of explanatory variables (metric and non-metric) and the predictors do not have to be normally

distributed and linearly related or of equal variance within each group (Aldrich and Nelson 1994). Also, according to Norusis (2006, p. 313) a binary logistic regression is useful in this study where the dependent variable is dichotomous (i.e. those who are prepared to use Islamic methods of finance and those who do not) and suitable technique to determine the probability of applying Islamic methods of finance by Libyan retail consumers, business firms and banks.

Mathematically, to test for the probability of applying Islamic methods of finance by Libyan individual consumers, business firms and banks, the binary logistic regression model has been used. In the binary logistic regression analysis, it can be directly estimated the probability of an event occurring (Norusis 2006). Accordingly, the following model for a binary logistic regression is specified:

$$\text{Prob}(\text{event} = 1) = \frac{1}{1 + e^{-z}} \quad (3)$$

Where:  $e$  is the base of the natural logarithm,  $z$  is the linear combination,  $Z = B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p$ ,  $B_0, \dots, B_p$  are logistic coefficients estimated from the data, and  $p$  is the number of independent variables. The coefficients imputed by the binary logistic model provide inferences about the effects of the explanatory variables on the probability of applying Islamic methods of finance by retail consumers, business firm and banks in Libya (Andersen 1997).

In this thesis, the binary logistic regression is performed to test Hypothesis 4 for Libyan retail consumers, business firms and banks. Specifically, the binary logistic regression is employed on the factor scores that relate to results of the factor analysis as explanatory variables with the primary goal of determining the probability of applying Islamic methods of finance by Libyan individual consumers, business firms and banks. The use of factor scores in subsequent multivariate analysis, especially if the data used for original sample is used commonly with regression by many researchers such as Gonzalez, Casas and Coenders (2007), Salam and Noguchi (2005), and Metwally and Prasad (2004). Consumers are divided into two groups, those who are prepared to use Islamic methods of finance and those who do not. Since the probability of an event must lie between 0 and 1, the criterion variable is the type of preference ( $Y$ ) where:  $Y$  is 1 if the respondent is prepared to apply Islamic methods of finance and 0 otherwise.

Forward stepwise selection method with maximum-likelihood computations of parameter estimates is used to obtain intensive results for a binary logistic regression

(Norusis 2005). The estimated coefficient, standard errors, the Wald statistic, significant values of parameters for the binary logistic regression, the ratio-change in the odds Exp(B), the Nagelkerke R<sup>2</sup> as an analogue for that used in the linear regression model are used to interpret results of the binary logistic regression (Norusis 2006). Hosmer-Lemeshow test is used for model misspecification, when the Hosmer-Lemeshow statistic is greater than 0.05, this indicates that the model adequately fits the data. In other words, the Hosmer-Lemeshow tests fail to reject the null hypotheses of no functional misspecification. The correlation matrix between the predicted factors is used to test multicollinearity. In addition, the Bayesian information correction (BIC) is equivalent to the Wald statistic for a given coefficient minus the logarithm of the sample size (Ipsen 2006, p. 80). Accordingly, BIC is used as additional method to interpret probability in this technique.

### **5.7 Concluding Remarks**

This chapter presents the theoretical perspective and details the empirical research methodology used to study Libyan attitudes towards Islamic methods of finance. It discusses hypotheses and theoretical framework the research design, research framework, data collection stages and statistical techniques applied in data analyses. The target population for this study is divided into three categories namely Libyan retail consumers, business firms and banks to determine aspects of their attitudes towards Islamic methods of finance. A self-administrated questionnaire is conducted out three months from December of 2007 to January/February 2008 to gather data from these three categories. In order to achieve study aims and to test the six hypotheses for each of Libyan retail consumers, business firms and banks, descriptive statistics and multivariate statistical techniques namely factor analysis; discriminant analysis and binary logistic regression are performed in the data analyses.

## **CHAPTER 6: EMPIRICAL RESULTS**

### **6.1 Introduction**

This chapter determines Libyan attitudes towards Islamic methods of finance using statistical approaches proposed in Chapter 5. More particularly, the purpose of this chapter is to provide an empirical analysis of the data and its results regarding retail consumers, business firms and banks. The focus is on the level of awareness, the impact of demographic and socioeconomic profiles, motivating factors for potential use of Islamic methods of finance, relative importance of motivating factors, potential use of Islamic methods of finance and the likelihood of applying Islamic methods of finance.

The chapter itself comprises five sections. Section 2 provides the empirical results for Libyan retail consumers concerning attitudes towards Islamic methods of finance. Section 3 discusses similar empirical results for Libyan business firms. The empirical results for Libyan banks are presented in Section 4. The chapter ends with some brief concluding remarks in Section 5.

### **6.2 Empirical Results for Libyan Retail Consumers**

For this group, a usable sample of 385 consumers from the biggest four cities in Libya (Tripoli, Benghazi, Misratah and Al Murgub) completed the self-administrated phone interviews questionnaire, resulting in a complete response rate (100%). This empirical analysis starts with the main characteristic of the sample using descriptive statistics, followed by six empirical steps of the research framework presented in previous chapter to test the hypotheses and to achieve this study's objectives.

#### **6.2.1. The Main Characteristics of the Sample for Libyan Retail Consumers**

The main characteristics of the sample for Libyan retail consumers are shown in Table 6.1. The respondents (92.9%) were males and 7.1% were females. The majority of respondents were males due to the fact that householders' heads in Libya are generally male. According to AL-Nouri (1995, p. 331), in Libya a boy is repeatedly reminded of the responsibilities awaiting him when reaching adulthood, particularly his role as breadwinner, husband and father. However, girls are kept in anticipation of marriage, motherhood, and housekeeping. Accordingly, women in Libya and many other Arabic countries are still not readily welcomed to engage in gainful jobs. This socio-cultural stance may account in part for women's vast dependency on men (Al-Nouri 1993). Therefore, males usually tend to make most financial decisions.

Table 6.1: The main characteristics of the sample for Libyan retail consumers

Variables	Frequency	%	Variables	Frequency	%
<b>Sex</b>					
Male	358	92.9	Public sector	292	75.8
Female	27	7.1	Private sector	46	11.9
<b>Age</b>					
Less than 25 years old of age	9	2.3	Self-employed	41	10.6
26 to 35 years old of age	79	20.5	Retired	6	1.7
36 to 45 years old of age	123	31.9	<b>Income</b>		
46 to 55 years old of age	153	39.7	Less than LYD200 per month	17	4.4
More than 55 years old of age	21	5.6	201 to 300 per month	211	54.8
<b>Highest level of education</b>					
No education	9	2.3	301 to 400 per month	138	35.8
Primary school	47	12.2	More than LYD400 per month	19	5.0
High school	94	24.4	<b>Nationality</b>		
Secondary school	61	15.8	Libyan	376	84.9
Diploma	116	30.1	Non-Libyan	9	16.1
University	54	14.0			
Postgraduate	4	1.2			

Over two-thirds (71.6%) of the respondents are aged 36 to 55. Approximately 45.9% of all respondents reached an education level at the diploma or secondary level. However, about 14% of respondents completed university. Most people interviewed (75.8%) are public servants (i.e. work in the government sector) and only 10.6% are self-employed. The respondents (54.8%) have an average monthly income of LYD200 – 300 and approximately 35.8% had LYD301 – 400. The majority of the respondents (84.9%) are Libyan and only 16.1% are non-Libyan.

### 6.2.2 Awareness of Islamic Methods of Finance

Table 6.2 summarises Libyan retail consumers' awareness of Islamic methods of finance aspects statistically in numbering and percentages. Collected data indicate some significant information regarding respondents' level of awareness about Islamic banking and their Islamic methods of finance, as follows: First, Approximately 90.1% of all respondents have knowledge about the existence of Islamic banks. Second *Musharakah* and *Quard Hassan* are clearly known by 67.8% of all respondents. Third, *Quard Hassan* has been practised by 21.3% of all respondents between each other. However, most respondents are unaware of other Islamic finance methods such as *Mudarabah*, *Morabahah*, *Bai Muajjall*, *Istisna*.

Regarding the awareness influence on potential use of Islamic methods of finance, clearly Table 6.2 shows that most of respondent who are aware of Islamic methods of finance represent potential users. In particularly, 92.8% of 347 knowledgeable consumers about the existence of Islamic banks, 93.8% of 261 knowledgeable consumers in *Musharakah* and *Quard Hassan* only and 93.9% of 82 consumers who practised *Quard Hassan* only are potential users. In other words, most of consumers who are unaware of all awareness aspects (90.3%) represent not potential users. Therefore, this discussion indicates that Libyan retail consumers' awareness of Islamic methods of finance has a positive effect on their potential use of Islamic methods of finance. Accordingly, Hypothesis 1 "Libyan retail consumers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance" is supported.

Table 6.2: Libyan retail consumers' awareness of Islamic methods of finance

Variables	Frequency	%	Potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
Potential users	331	85.9				
Not a potential users	54	14.1				
<b>Knowledge about the existence of Islamic banks</b>						
Knowledgeable consumers	347	90.1	322	92.8	25	7.2
Unknowledgeable consumers	38	9.9	9	23.7	29	76.3
<b>Knowledge of Islamic methods of finance</b>						
Knowledgeable consumers in <i>Musharakah</i> and <i>Quard Hassan</i> only.	261	67.8	245	93.8	16	6.2
Unknowledgeable consumers	34	8.8	4	11.8	30	88.2
<b>Practice of Islamic methods of finance</b>						
Consumers practiced <i>Quard Hassan</i> only.	82	21.3	77	93.9	5	6.1
Consumers do not practice any method.	297	77	250	84.2	47	15.2
<b>Consumers who are unaware of all previous awareness aspects.</b>						

### 6.2.3 Impact of Demographic and Socioeconomic Profiles

In this study's questionnaire, the respondents were asked to indicate their personal demographic and socioeconomic variables including, sex, age, education, professional status, monthly income, nationality and their attitudes towards potential use of Islamic methods of finance.

Discriminant analysis is performed on the first six variables as explanatory variables with the primary goal of determining which of these variables account the most impact on the Libyan consumers' attitudes towards potential use of Islamic methods of finance.

Table 6.3: Group statistics, tests of equality of group means and pooled within-groups matrices

Groups	Sex	Mean	Std. Deviation	Valid N (listwise)		
		Unweighted	Weighted	Unweighted	Weighted	
Not potential users	Sex	1.037	.190	54	54	
	Age	2.537	1.058	54	54	
	Education	3.333	1.359	54	54	
	Profession	2.666	.777	54	54	
	Income	3.092	.680	54	54	
	Nationality	1.092	.292	54	54	
Potential users	Sex	1.075	.264	331	331	
	Age	3.371	.844	331	331	
	Education	4.172	1.347	331	331	
	Profession	1.169	.468	331	331	
	Income	2.302	.582	331	331	
	Nationality	1.012	.109	331	331	
Total	Sex	1.070	.255	385	385	
	Age	3.254	.922	385	385	
	Education	4.054	1.378	385	385	
	Profession	1.379	.737	385	385	
	Income	2.413	.656	385	385	
	Nationality	1.023	.151	385	385	
		Wilks' Lambda	Univariate ratios	df1	df2	
					Sig.	
Sex		.997	1.052	1	383 .306	
Age		.901	42.021	1	383 .000	
Education		.955	17.947	1	383 .000	
Profession		.501	381.470	1	383 .000	
Income		.825	81.501	1	383 .000	
Nationality		.966	13.577	1	383 .000	
Correlation	Sex	Age	Education	Profession	Income	Nationality
Sex	1.00	-.028	-.022	-.011	-.030	.035
Age	-.028	1.000	-.165	.193	.360	-.003
Education	-.022	-.165	1.000	.001	.377	-.083
Profession	-.011	.193	.001	1.000	-.019	-.067
Income	-.030	.360	.377	-.019	1.000	-.079
Nationality	.035	-.003	-.083	-.067	-.079	1.000

The potential use of Islamic methods of finance is used as dependent variable. Thus, consumers are divided into two groups, those who are potential users of Islamic methods of finance and those who do not. The discriminant analysis's results are shown as follows:

Table 6.3 gives discriminant analysis results that include information between the mean and standard deviation for the two groups. The group means suggest that the two groups are widely separated in terms of value of profession status, income, age and education. Differences between the two groups are the smallest for nationality and sex. The Wilks' lambda statistic in Table 6.3 is calculated as the ratio of the within-groups sum of squares to the total sum of squares. Because all the Wilks' lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that, when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The pooled within-groups correlation matrix at the end of Table 6.3 is obtained by averaging the separate covariance matrices for the two groups and then computing the correlation matrix from the pooled-covariance matrix. This matrix indicates remarkable low correlations between the variables. Therefore, multicollinearity is not a serious problem in this analysis (Norusis 2006).

Table 6.4: Test results and log determinants

Box's M		230.741
F	Approx.	10.531
	df1	21
	df2	32002.831
	Sig.	.000
Groups	Rank	Log Determinant
Not potential users	6	-6.924
Potential users	6	-10.062
Pooled within-groups	6	-9.025

Table 6.4 indicates the level of significant of *Box's M* which suggests that we should reject the null hypothesis that the covariance matrices are equal. This is confirmed also by the logs of the determinants of the variance-covariance matrices shown in Table 6.4. The logs of the determinants are quite different in value between the two groups.

Table 6.5: Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	2.475	100.0	100.0	.844
	Wilks' Lambda	Chi-square	df	Sig.
Test of Function(s)				
1	.288	473.323	6	.000

The eigenvalue in Table 6.5 is remarkably large (2.475) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is about 0.85. The square of this coefficient shows that 72.2% of the variance of the dependent variable is explained or accounted for by this model (Norusis 2006, Metwally 2003). The Wilks' lambda associated with the discriminant function in Table 6.5 is 0.288 which is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 473.323, which is statistically significant at the 0.0 level with degrees of freedom equal to the number of predictor variables. Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users have the same average discriminant function score in the population (Norusis 2006 and Malhotra and Birks 2003).

The absolute magnitude of the standardized canonical discriminant function coefficients in Table 6.6, suggests that profession status (0.806), monthly income (0.795), age (0.743) and highest level of education (0.546) are the most important variables in discriminating between the two groups of retail consumers (those who are potential users of Islamic methods of finance and those who do not. In other words, profession status as a demographic variable has most impact on the retail consumer's attitudes towards Islamic methods of finance (Malhotra 2006, Metwally 2000).

Another way to assess the relative importance of the predictors can be obtained by examining the structure correlations between the values of the function and the values of the variables shown in Table 6.6. The results indicate that profession status, monthly income, age and level of education respectively have much impact on Libyan retail consumers' attitudes towards Islamic methods of finance. Noticeably, there is an agreement between results of the standardized coefficient and the structure matrix.

The group centroids in Table 6.6 show the unstandardized canonical discriminant functions evaluated at the group means. As shown group 1 (those who are not potential users of Islamic methods of finance) has a positive value while group 2 (those who are potential users of Islamic methods of finance) has a negative value. Since the sign associated with the value of profession, income and nationality in both standardized canonical discriminant function coefficients and structure matrix is positive and since the age, level of education and sex have a negative sign, this suggests that a person who is a self employed with relatively high income, small age and low level of education will be among those who are not potential users of Islamic methods of finance

(Metwally 2000). Therefore, Islamic methods of finance will be preferred by those who are public servants and elderly age with relatively low incomes. This supports the Hypothesis 2 “Libyan retail consumers’ socioeconomic and demographic factors influence the potential use of Islamic methods of finance”

Table 6.6: Standardized canonical discriminant function coefficients, structure matrix, functions at group centroids and classification results

Standardized canonical discriminant function coefficients		Function
		1
Sex		-.040
Age		-.743
Education		-.546
Profession		.806
Income		.795
Nationality		.190
Structure matrix		Function
		1
Profession		.634
Income		.293
Age		-.211
Education		-.138
Nationality		.120
Sex		-.033
Functions at group centroids		Function
Groups		1
Not potential users		3.885
Potential users		-.634
classification results		Predicted Group Membership
		Total
Groups		Not potential users Potential users
Original	Count	Not potential users 51 3 54 Potential users 2 329 331
%		Not potential users 94.4 5.6 100.0 Potential users .6 99.4 100.0

A 98.7% of original grouped cases correctly classified.

The classification matrix at the end of Table 6.6 gives hit ratio of 98.7% which indicates highly significant classification for most cases included in the sample. In other words there are only five cases that are misclassified and this is acceptable when the not potential user group is much smaller than the potential user group (Norusis 2006). It is possible also to calculate the Press’s Q statistic for the sample by:

$$Q = [N - (n * k)]^2 / [N(k - 1)] \quad (1)$$

Where:  $N$  is total sample size,  $n$  is number of observations correctly classified, and  $k$  is number of groups. The calculation give a Q statistic equals 365.2. The critical value at a significant level of .01 is 6.63 which suggest that the predictions are significantly better than chance (Metwally 2000).

#### 6.2.4 Motivating Factors for Potential Use of Islamic Methods of Finance

Table 6.7: Descriptive statistics

<b>Variables</b>	<b>Mean</b>	<b>Std. Devi</b>
Islamic methods of finance are interest-free.	5.1039	1.55945
An Islamic bank provides Islamic methods of finance in accordance with <i>Sharia</i> .	4.6234	1.80594
Deposits with Islamic banks would realise a higher and variable rate of return.	3.8078	1.44498
Religious motivation for depositing with an Islamic bank.	4.1792	1.54838
An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	4.1610	1.30106
Religious motivation for borrowing from an Islamic bank.	4.4286	1.53965
An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	3.9117	1.47107
An Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	3.9455	1.48767
Profit/loss sharing method allows you to invest or borrow on a fair basis.	4.1714	1.67136
An Islamic bank may help in collecting and distribution of <i>Zakah</i> .	3.9948	1.78826
An Islamic bank aims to serve Muslim communities.	3.9325	1.45617
An Islamic bank may contribute to the society's development.	4.1922	1.65027
An Islamic bank provides lease financing ( <i>Ijarah</i> ).	3.8935	1.55006
An Islamic bank provides trade financing methods such as <i>Morabahah</i> .	3.9143	1.38272
An Islamic bank provides industrial financing ( <i>Istisna</i> ).	3.8000	1.40461
An Islamic bank may help poor people with benevolent loans ( <i>Quard Hassan</i> ).	4.8312	1.67241

Respondents were requested to indicate their degree of importance for 16 statements that represent beliefs and evaluated outcomes for potential use of Islamic methods of finance on a seven-point Likert scale. Table 6.7 details the means and standard deviations of the variable scores. The data in column two at the Table 6.7 suggest that the primary motivations towards Islamic methods of finance are its interest free and the nature religious motivation for potential use of Islamic methods of finance. In contrast, Islamic bank provide industrial financing (*Istisna*) and deposits with Islamic bank would realise a higher and variable rate of return are considered to be at the end of motivations' list.

Factor analysis (principal component analysis) is performed on the sixteen explanatory variables with the primary goal of data reduction (Hair, Anderson, Tatham and Black 1995). The data in the correlation matrix (not shown) illustrate that there are high

correlations among the explanatory variables that are significant at the 0.000 level. This justifies the appropriateness of factor analysis to reduce these highly correlated variables to a small manageable number of factors. An investigation of the statistical results suggests that the coefficients on the diagonals of the anti-image correlation matrix are greater than 0.5 for each variable. Therefore, there is no need to eliminate any of the variables. Also, all variables have a large correlation with more than one of the other variables. This also suggests the adequacy of the factor model (Malhotra 2006; Metwally 2000).

As shown in Table 6.8, Bartlett's test of sphericity is used to test the null hypothesis that the variables are uncorrelated in the population. The test gives a value of 7750.584 which is highly significant favouring a rejection of the null hypothesis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is calculated. A value of .803 is obtained, this means that all of the partial correlation coefficients are small compared to the ordinary correlation coefficients. Therefore, this indicates that it's reasonable to go ahead with a factor analysis (Norusis 2006).

Table 6.8: Eigenvalues and total variance explained

No	Initial eigenvalues		
	Total	% of Variance	Cumulative %
1	6.608	41.299	41.299
2	3.885	24.282	65.582
3	1.533	9.580	75.161
4	1.365	8.530	83.692
5	.778	4.860	88.552
6	.432	2.699	91.251
7	.380	2.376	93.627
8	.318	1.984	95.612
9	.174	1.088	96.700
10	.158	.987	97.686
11	.105	.659	98.345
12	.088	.553	98.898
13	.077	.482	99.380
14	.044	.278	99.658
15	.038	.235	99.893
16	.017	.107	100.000

Notes: (a) Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.803

(b)Bartlett's Test of Sphericity is 7750.584

(c) Significance is .000

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Table 6.8 also indicates relevant information after the desired number of factors has been extracted. The table shows the commonalities for the variables, along with the variance accounted for by each factor that is retained. It can be seen that 16 explanatory variables can be reduced to just four factors with an eigenvalue greater than one (Metwally 2000; Basilevsky 1994). These four factors account for approximately 83.7%

of the total variance. In addition, reproduced correlations matrix (not shown) indicates that the magnitudes of residuals are computed between observed and reproduced correlations. It indicates that only 14% of the residuals are greater than 0.05 (in absolute value). Accordingly, this also suggests the goodness fit for factor analysis model (Malhotra and Birks 2003).

Table 6.9 shows the rotated factor matrix obtained by the varimax procedure and indicates the factors and their coefficients used to interpret the factors in terms of the variables (Malhotra 2006; Metwally 2000; Tabachinck and Fidell 2001; and Hair, Anderson, Tatham and Black 1995). Factor 1 has high coefficients (more than 0.5) on five variables which are shown with the shading in column 2. These are (i) Profit/loss sharing method which allows a client to invest or borrow on a fair basis, (ii) An Islamic bank may help in collecting and distribution of *Zakah*, (iii) An Islamic bank aims to serve Muslim communities, (iv) An Islamic bank may contribute to the society's development, and (v) An Islamic bank may help poor people with benevolent loans (*Quard Hassan*). Noticeably, these variables in general focus on requirements for Muslims in accordance with *Sharia*. Thus, this factor can be labelled as "Muslims services".

Table 6.9: Rotated factor matrix

Variables	Factors			
	1	2	3	4
Islamic bank's methods of financing are interest-free.	.287	.306	.816	.065
An Islamic bank provides Islamic methods of finance in accordance with <i>Sharia</i> .	.355	-.089	.811	.298
Deposits with Islamic bank would realise a higher and variable rate of return.	-.042	.946	.040	.226
Religious motivation for depositing with Islamic bank.	.271	.044	.919	.063
An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	.153	.592	.084	-.016
Religious motivation for borrowing from Islamic bank.	.227	.012	.911	.091
An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	-.051	.943	.031	.213
An Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	-.047	.940	.040	.213
Profit/loss sharing method allows you to invest or borrow on a fair basis.	.690	.240	.250	.258
An Islamic bank may help in collecting and distribution of <i>Zakah</i> .	.836	-.006	.226	.147
An Islamic bank aims to serve Muslim communities.	.882	-.100	.237	.127
An Islamic bank may contribute to the society's development.	.943	-.136	.212	.034
An Islamic bank provides lease financing ( <i>Ijarah</i> ).	.144	.281	.084	.897
An Islamic bank provides trade financing methods such as <i>Morabahah</i> .	.218	.053	.265	.850
An Islamic bank provides industrial financing ( <i>Istisna</i> ).	.067	.553	.026	.739
An Islamic bank may help poor people with benevolent loans ( <i>Quard Hassan</i> ).	.725	.329	.397	.013

Factor 2 has high coefficients (more than 0.5) on four variables which are shown with the shading in column 3. These are (i) deposits with Islamic banks would realise a higher and variable rate of return, (ii) An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business, (iii) An Islamic bank may invest with you according to profit sharing method only (*Mudarabah*), and (iv) An Islamic bank lends money according to profit/loss sharing method (*Musharakah*). These motivations generally promote consumer's wishes to increase profit and decline loss. This factor, therefore, can be labelled as "Profitability".

Factor 3 has high coefficients (more than 0.5) on four variables which are shown with the shading in column 4. These are namely; (i) An Islamic bank methods of finance are interest-free, (ii) An Islamic bank provides Islamic methods of finance in accordance with *Sharia*, (iii) religious motivation for depositing with Islamic bank, and (iv) religious motivation for borrowing from Islamic bank. Hence, this factor can be labelled as "Religion". This labelling is created because of the fact that these motivations indicate consumer's reaction to comply with Islam.

Finally, Factor 4 has high coefficients (more than 0.5) on three variables which are shown with the shading in column 5. These motivations are, (i) An Islamic bank provides lease financing (*Ijarah*), (ii) An Islamic bank provides trade financing methods such as *Morabahah* and (iii) An Islamic bank provides industrial financing (*Istisna*). These variables represent new methods of finance that are unoffered by conventional banks. Thus, this factor can be labelled as "Unique services". To conclude this section of factor analysis, the Hypothesis 3 "various motivating factors influence the potential use of Islamic methods of finance by Libyan retail consumers" is supported. In particular, 16 explanatory variables listed in Table 6.9 are reduced to (Muslims services, Profitability, Religion and Unique services).

### **6.2.5 Important Factors for the Potential Use of Islamic Methods of Finance**

According to Hair, Anderson, Tatham and Black (1995) and Curhan and Kopp (1988), factor scores are suitable for use in subsequent multivariate analysis, including discriminant analysis, especially if the data is used for the same sample. These factor scores are calculated automatically when applying factor analysis in previous section. Therefore, discriminant analysis is performed on the four factors' scores (Muslims services, Profitability, Religion and Unique services) as explanatory variables with the primary goal of determining which of these factors represents the most impact on the Libyan consumers' attitudes towards the use of Islamic methods of finance. The

respondents' intention to use Islamic methods of finance is used as the dependent variable (Potential use of Islamic methods of finance). Thus, consumers are divided into two groups; namely, those who are potential users of Islamic methods of finance and those who are not potential users of Islamic methods of finance.

Table 6.10: Group statistics, tests of equality of group means and pooled within-groups matrices

Groups		Mean	Std. Deviation	Valid N (list wise)	
		Unweighted	Weighted	Unweighted	Weighted
Not potential users	Factor score 1 (Muslims services)	-1.260	.316	54	54
	Factor score 2 (Profitability)	-.780	.904	54	54
	Factor score 3 (Religion)	-1.565	.273	54	54
	Factor score 4 (Unique services)	-.299	.316	54	54
Potential users	Factor score 1 (Muslims services)	.205	.919	331	331
	Factor score 2 (Profitability)	.127	.957	331	331
	Factor score 3 (Religion)	.255	.827	331	331
	Factor score 4 (Unique services)	.0488	1.063	331	331
Total	Factor score 1 (Muslims services)	.000	1.000	385	385
	Factor score 2 (Profitability)	.000	1.000	385	385
	Factor score 3 (Religion)	.000	1.000	385	385
	Factor score 4 (Unique services)	.000	1.000	385	385
		Wilks' Lambda	Univariate ratios	df1	df2
					Sig.
Factor score 1 (Muslims services)		.740	134.395	1	383
Factor score 2 (Profitability)		.900	42.418	1	383
Factor score 3 (Religion)		.599	256.176	1	383
Factor score 4 (Unique services)		.985	5.705	1	383
		Factor score 1 (Muslims services)	Factor score 2 (Profitability)	Factor score 3 (Religion)	Factor score 4 (Unique services)
Correlation					
Factor score 1 (Muslims services)		1.000	-.197	-.484	-.072
Factor score 2 (Profitability)		-.197	1.000	-.272	-.041
Factor score 3 (Religion)		-.484	-.272	1.000	-.100
Factor score 4 (Unique services)		-.072	-.041	-.100	1.000

Table 6.10 gives information between the mean and standard deviation for the two groups. The group means suggest that the two groups are widely separated in terms of the value of Factor scores 3 (Religion) and 1 (Muslims services). Differences between the two groups are smallest for factor scores 2 (Profitability) and 4 (Unique services). The Wilks' lambda statistic in Table 10 is calculated as the ratio of the within-groups sum of squares to the total sum of squares. This proportion of the variance is not explained by differences between the groups. Because all the Wilks' lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The pooled within-groups correlation matrix at the end of Table 6.10 is obtained by averaging the separate covariance matrices for the two groups and then computing the correlation matrix from the pooled-covariance matrix. This matrix indicates remarkable low correlations between the factor scores. Therefore, multicollinearity is not a serious problem (Norusis 2006).

Table 6.11: Test results and log determinants

Box's M		263.238
F	Approx.	25.589
	df1	10
	df2	38604.779
	Sig.	.000
Groups	Rank	Log Determinant
Not potential users	4	-8.468
Potential users	4	-1.156
Pooled within-groups	4	-1.481

Table 6.11 presents the level of significant of *Box's M* which suggests we should reject the null hypothesis that the covariance matrices are equal (Manly 1994). This is also confirmed by the logs of the determinants of the variance-covariance matrices shown in Table 6.11. Clearly, the logs of the determinants are quite different in value between the two groups.

Table 6.12: Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	3.443	100.0	100.0	.880
	Wilks' Lambda	Chi-square	df	Sig.
Test of Function(s)				
1	.225	568.202	4	.000

The eigenvalue in Table 6.12 is the ratio of the between-groups sum of squares to the within-groups sum of squares; and usually a good discriminant function provides scores that vary a lot between groups and little within groups resulting in a large eigenvalue. The eigenvalue is quite large (3.443) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is 0.88. The square of this coefficient shows that 77.4% of the variance of the dependent variable is explained or accounted for by this model (Norusis 2006; Metwally 2003).

The Wilks' lambda associated with the discriminant function in Table 6.12 is 0.225. This is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 568.202, which is statistically significant at the 0.0 level with degrees of freedom equal to the number of predictor variables or (factor scores). Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users have the same average discriminant function score in the population (Norusis 2006, and Malhotra and Birks 2003).

Table 6.13: Standardized canonical discriminant function coefficients, structure matrix and classification results

Standardized canonical discriminant function coefficients		Function 1	
Factor score 1 (Muslims services)		1.050	
Factor score 2 (Profitability)		.717	
Factor score 3 (Religion)		1.173	
Factor score 4 (Unique services)		.288	
Structure matrix		Function 1	
Factor score 3 (Religion)		.441	
Factor score 1 (Muslims services)		.319	
Factor score 2 (Profitability)		.179	
Factor score 4 (Unique services )		.066	
Classification results			
		Predicted Group Membership	
		Not potential users	
Original	Groups	Potential users	
		330	
Count		Not potential users	
		2	
%		Potential users	
		99.7	
		Not potential users	
		3.7	
		Total	
		Potential users	
A 99.2% of original grouped cases correctly classified.		331	
		54	
		100.0	
		100.0	

The absolute magnitude of the standardized canonical discriminant function coefficients in Table 6.13, suggests that religious factor (1.173), Muslims services (1.050) and profitability (0.717) are the most important factors in discriminating between the two groups of Libyan retail consumers. Clearly, religion is the primary motivation for the use of Islamic methods of finance among Libyan potential retail consumers (Malhotra 2006, Metwally 2000). Another way to assess the relative importance of the predictors can be obtained by examining the structure correlations between the values of the function and the values of the variables. This method (called canonical loading or discriminant loadings) can be observed with the structure matrix (Norusis 2006 and Malhotra and Birks 2003).

Once again Table 6.13 indicates that religion (0.441) is the most important factor for the potential use of Islamic methods of finance by Libyan retail consumers. The classification matrix in Table 6.13 based on the sample analysis gives hit ratio of 99.2% indicating highly significant classification for most cases included in the sample. In other words there are only three cases that are misclassified and this is acceptable when one group is much smaller than another (Norusis 2006).

### **6.2.6 Potential Use of Islamic Methods of Finance**

Libyan retail consumers were asked to indicate their intention to use Islamic methods of finance. In particular, Table 6.14 indicates Libyan retail consumers' potential use of Islamic methods of finance. Most of respondents (85.9 %) are potential users of Islamic methods of finance. However, only 14.1% of Libyan retail consumers are not potential users. From these potential users, 92.4% are males are in majority (86.1%) public servants who work in Public sector. In addition, they are in majority Libyan (98.8%) who have an average monthly income of LYD200–300. Over three-fourth of potential users aged more than 36 years old with diploma or high level of education. However, most of the respondents who are not potential users of Islamic methods of finance are younger than 36 years old, self-employed (68.5%) and majority of them have monthly income more than LYD300. One explanation is that this group would prefer to deal with conventional banks that provide them with funds in accordance with fixed or variable interest rates.

Table 6.14: Libyan retail consumers' potential use of Islamic methods of finance

Variables	Frequency	%	Potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
Potential user	331	85.9	331			
Not a potential user	54	14.1			54	
<b>Sex</b>						
Male	358	92.9	306	92.4	52	96.3
Female	27	7.1	25	7.6	2	3.7
<b>Age</b>						
Less than 25 years old	9	2.3	3	0.9	6	11.1
26 to 35 years old	79	20.5	53	16	26	48.1
36 to 45 years old	123	31.9	110	33.2	13	24.1
46 to 55 years old	153	39.7	148	44.7	5	9.3
More than 55 years old	21	5.6	17	5.2	4	7.4
<b>Highest level of education</b>						
No education	9	2.3	9	2.7	0	000
Primary school	47	12.2	29	8.7	18	33.4
High school	94	24.4	87	26.2	8	14.8
Secondary school	61	15.8	45	13.6	16	29.6
Diploma	116	30.1	107	32.3	8	14.8
University	54	14.0	51	15.3	4	7.4
Postgraduate	4	1.2	4	1.2	0	000
<b>Professional status</b>						
Public sector	292	75.8	285	86.1	7	12.9
Private sector	46	11.9	39	11.8	7	12.9
Self-employed	41	10.6	4	1.2	37	68.5
Retired	6	1.7	3	0.9	3	5.6
<b>Income</b>						
Less than LYD200 per month?	17	4.4	17	5.1	0	000
201 to 300 per month?	211	54.8	201	60.8	10	18.5
301 to 400 per month?	138	35.8	109	32.9	29	53.7
More than LYD400 per month?	19	5.0	4	1.2	15	27.8
<b>Nationality</b>						
Libyan	376	84.9	327	98.8	49	90.7
Non-Libyan	9	16.1	4	1.2	5	9.3

### 6.2.7 The Probability of Applying Islamic Methods of Finance

A binary logistic regression is performed on the four factor scores (Muslims services, Profitability, Religion and Unique services) as explanatory variables with the primary goal of determining the probability of applying Islamic methods of finance by Libyan retail consumers. The potential use of Islamic methods of finance is representing dependent variable. Thus, retail consumers are divided into two groups, those who are potential users of Islamic methods of finance and those who do not. Since the probability of an event must lie between 0 and 1, the criterion variable is the type of

potential use (Y) where: Y is 1 if the respondent is a potential user of Islamic methods of finance, Y is 0 otherwise.

Forward-Stepwise selection method with maximum-likelihood computations of parameter estimates is used to obtain results for the binary logistic regression (Norusis 2005). Therefore, model employing all the four of explanatory variables are in three steps. The third step in table of variables not in the equation (not shown) indicates that the factor four (Unique services) is left out of the analysis. The reason for that is, it has value larger than 0.05 (.214) which is statistically insignificant. In other words, the retail consumers surveyed are indifferent in their consideration for this factor (Unique services) to apply Islamic methods of finance. Thus, the focus among this analysis will be on the other three factors.

Table 6.15: Logistic regression prediction of the potential use of Islamic methods of finance

Factor name	Logit	Standard error	Wald statistic	Sig	BIC	Exp (B)
Muslims services	1.837*	0.661	7.720	0.005	1.77	6.276
Profitability	1.467*	0.672	4.762	0.029	- 1.19	4.336
Religion	3.803*	0.892	18.176	0.000	12.23	44.846
Constant	5.329	0.931	32.756	0.000	26.81	206.17
Nagelkerke R <sup>2</sup>	0.937					
Hosmer-Lemeshow	0.620					
Groups		Predicted				
		Not potential users	Potential users		% correct	
Not potential users		52	2		96.3	
Potential users		1	330		99.7	
Overall percentage					99.2	

Asterisks \* indicate significance at 5 % level.

The estimated coefficient, standard errors, Wald statistic and significant values of parameters for the binary logistic regression are provided in Table 6.15. The ratio-change in the odds Exp(B), the Nagelkerke R<sup>2</sup> as an analogue for that used in the linear regression model and the Hosmer-Lemeshow test for model misspecification are also included. In addition, Table 6.15 includes the Bayesian information correction (BIC), defined as the Wald statistic minus the logarithm of the sample size (logarithm of 385 is a value of 5.95). Since the sample is large, the strength of association is further evaluated using (BIC) (Ipsen 2006). Moreover, according to Raftery (1995), a BIC from 1 to 2 is a weak, from 2 to 6 is a positive, from 6 to 10 is a strong and greater than 10 is

very strong. Finally, Table 6.15 includes the classification information that shows the practical results of using the logistic regression model.

As shown in Table 6.15, the Hosmer-Lemeshow statistic is 0.620 which is greater than 0.05 and this indicates that the model adequately fits the data. In other words, the Hosmer-Lemeshow tests fail to reject the null hypotheses of no functional misspecification. Therefore, it indicates that this model is appropriate for modelling the use of Islamic methods of finance in Libya (Hosmer and Lemeshow2000). The Nagelkerke R<sup>2</sup> value is 0.937 which is adequate and illustrates that about 94% of the variation is explained by the logistic regression model. To test multicollinearity, the correlations between the predicted factors are calculated. The correlation matrix (not shown) shows that the highest correlation is 0.367, which suggests that multicollinearity is not a serious problem in this analysis.

The estimated coefficients shown in Table 6.15 (logit \* in column 2) indicate that the factors representing religion, Muslims services, and profitability respectively are statistically significant and carry a positive sign. This suggests that there is more desire to comply with *Sharia*; the greater the degree of consumers' wills for Muslims service; the greater the motivation to increase of the profitability led to the higher probability of applying Islamic methods of finance by Libyan retail consumers. In particular, religion increases the likelihood of the use of Islamic methods of finance by 3.803 times, Muslim communities' service by 1.837 times, and profitability by 1.467. In addition, they have large values for Exp(B) comprising 44.846, 6.276, and 4.336.

Using the BIC, it is found that the religious factor has a very strong association with the use of Islamic methods of finance and Muslims service factor has a weak association. However, the profitability factor also has a very weak association with the use of Islamic methods of finance. Clearly, this indicates that religion represents the primary predictor for increasing the probability of applying Islamic methods of finance in Libya for retail consumers. Therefore, the Hypothesis 4 that stats "religion is a major influence on the likelihood of engaging in Islamic finance by Libyan retail consumers" is supported. To conclude, Table 6.15 shows that the model successfully classified the use of Islamic methods of finance for 99.2 % of respondents.

### **6.3 Empirical Results for Libyan Business Firms**

For this group, a usable sample of 296 respondents of business firms in the biggest four cities in Libya (Tripoli, Benghazi, Misratah and Al Murgub) is completed the self-

administered phone interviews questionnaire, resulting in 76.9% response rate. This empirical analysis starts with the main characteristic of the sample using descriptive statistics, followed by six empirical steps of the research framework presented in the previous chapter to test the hypotheses to achieve this study's objectives.

### **6.3.1. The Main Characteristics of the Sample for Libyan Business Firms**

Table 6.16 shows the main characteristics of the sample in numbering and percentage for Libyan business firms. The two biggest percentages of firms are services firms and construction firms that are mostly interested to use Islamic methods of finance. More than 40% of firms have business experience of 4 to 5 years. Over one-third (32.1%) of the respondents have total assets between LYD101,000 to LYD300,000 and more than 20% of them have liabilities between LYD50,000 to LYD100,000. However, there is no firm has liabilities more than LYD300,000. The majority of respondents have share capital more than LYD50,000 with number of employees from 5 to 20. Most firms interviewed (96.6%) were joint ventures and partnerships, whereas 3.4% are family business. 37.2 % of the firms are established by partners from 10 to 20 people.

Table 6.16: The main characteristics of the sample for Libyan business firms

Variables	Frequency	%	Variables	Frequency	%
<b>Professional status</b>					
Trading	12	4.1	Less than 50,000	81	27.4
Manufacturing	50	16.9	50,000 to 100,000	116	39.2
Importing and exporting	60	20.3	101,000 to 200,000	46	15.5
Construction	66	22.3	201,000 to 300,000	17	5.7
Transport and storage	20	6.7	More than 300,000	36	12.2
Services	78	26.3	<b>Number of employees</b>		
Others	10	3.4	Less than 5 people	84	28.6
<b>Business Experience</b>					
Less than 1 year	9	3	5 to 10 people	123	41.5
2 to 3 years	86	29	11 to 20 people	76	25.6
4 to 5 years	122	41.3	More than 20 people	13	4.3
More than 5 years	79	26.7	<b>Business type</b>		
<b>Total of assets</b>					
Less than LYD 50,000	2	0.8	Family business	10	3.4
50,000 to 100,000	45	15.2	Joint venture	155	52.4
101,000 to 300,000	95	32.1	Partnership	131	44.2
301,000 to 500,000	83	28	<b>Number of partners</b>		
More than LYD 500,000	71	23.9	Less than 10 people	90	30.4
<b>Total of liabilities</b>					
Less than LYD 50,000	96	32.4	10 to 20 people	110	37.2
50,000 to 100,000	160	54	21 to 30 people	21	7.1
101,000 to 200,000	36	12.2	More than 30 people	75	25.3
201,000 to 300,000	4	1.4			
More than LYD 300,000	-	-			

### 6.3.2 Awareness of Islamic Methods of Finance

Table 6.17 summarises the respondents of Libyan business firms' awareness of Islamic methods of finance aspects statistically in numbering and percentages. Collected data indicate some significant information regarding respondents' level of awareness about Islamic banking and their Islamic methods of finance. It was found that 88.5% of all respondents have knowledge about the existence of Islamic banks and *Musharakah* and *Quard Hassan* were clearly known by over two-third (71.3%) of all respondents. Also, *Musharakah* was practised by 72.3% of all respondents. This was due to the fact that most of their firms depended on *Musharakah* principles.

Table 6.17: Libyan business firms' respondents' awareness of Islamic methods of finance

Variables	Frequency	%	A potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
A potential user	214	72.3				
Not a potential user	82	27.7				
<b>Knowledge about the existence of Islamic banks</b>						
Knowledgeable respondents	262	88.5	206	78.6	56	21.4
Unknowledgeable respondents	34	11.5	8	23.5	26	76.5
<b>Knowledge of Islamic methods of finance</b>						
Knowledgeable respondents in <i>Musharakah</i> and <i>Quard Hassan</i> only.	211	71.3	164	77.7	47	22.3
Unknowledgeable respondents	25	8.4	23	92	2	8
<b>Practice of Islamic methods of finance</b>						
Respondents practised <i>Musharakah</i> only.	214	72.3	169	78.9	45	21.1
Respondents do not practise any method.	33	11.1	8	24.2	25	75.6
<b>Respondents who are unaware of all previous awareness aspects.</b>						
	23	7.8	2	8.7	21	91.3

However, most respondents were uninformed regarding other Islamic finance methods such as *Mudarabah*, *Morabahah*, *Bai Muajjall*, *Istisna*. Regarding the awareness effect on potential use of Islamic methods of finance, clearly Table 6.17 indicates that majority of respondents who are aware of Islamic methods of finance represent potential users. Particularly, 78.6% of 262 knowledgeable respondents were aware of the existence of Islamic banks, 77.7% of 211 knowledgeable respondents in *Musharakah* and *Quard Hassan* and 78.9% of 214 respondents who practised *Musharakah* only are potential users. In other words, most of respondents who were unaware of all awareness

aspects (91.3%) represented not potential users. Therefore, this discussion indicates that Libyan firms' respondents' awareness of Islamic methods of finance has a positive effect on their potential use of Islamic methods of finance. Accordingly, Hypothesis 1 "Libyan business firms' managers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance" is supported.

### **6.3.3 Impact of Demographic and Socioeconomic Profiles**

In this thesis's questionnaire, the respondents were asked to indicate their firms' profiles, professional status, business experience, total of assets, total of liabilities, share capital, number of employees, type of business and number of partners. In addition, they were asked about their intention to use Islamic methods of finance. Discriminant analysis was performed on the eight variables that represented firms' profiles as explanatory variables with the primary goal of determining which of these variables accounted the most impact on the Libyan firms' attitudes towards potential use of Islamic methods of finance. The potential use of Islamic methods of finance is used as dependent variable. Thus, respondents are divided into two groups, those who are potential users of Islamic methods of finance and those who were not potential users.

Table 6.18 shows discriminant analysis results that include information between the mean and standard deviation for the two groups. The group means suggests that the two groups are widely separated in terms of value of share capital and total assets. Differences between the two groups are the smallest for professional status and number of employees. The Wilks' lambda statistic in Table 6.18 is the proportion of the variance not explained by differences between the groups.

Because all the Willks' lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that, when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The polled within-groups correlation matrix at the end of Table 6.18 is obtained by averaging the separate covariance matrices for the two groups and then computing the correlation matrix from the pooled-covariance matrix. This matrix indicates remarkable low correlations between the variables. Thus, multicollinearity is not a serious problem (Norusis 2006).

Table 6.18: Group statistics, tests of equality of group means and pooled within-groups

Groups		Mean	Std. Deviation	Valid N (listwise)					
		Unweighted	Weighted	Unweighted	Weighted				
Not potential user	Professional status	3.829	1.616	82	82				
	Business experience	3.719	.503	82	82				
	Total of assets	4.670	.589	82	82				
	Total of liabilities	2.268	.703	82	82				
	Share Capital	3.865	1.162	82	82				
	Number of employees	2.329	.903	82	82				
	Business type	2.134	.408	82	82				
	Number of partners	3.182	1.101	82	82				
	Professional status	4.112	1.640	214	214				
	Business experience	2.607	.702	214	214				
Potential user	Total of assets	3.182	.855	214	214				
	Total of liabilities	1.654	.598	214	214				
	Share capital	1.785	.731	214	214				
	Number of employees	1.957	.800	214	214				
	Business type	2.514	.571	214	214				
	Number of partners	1.925	.961	214	214				
	Professional status	4.033	1.636	296	296				
	Business experience	2.915	.821	296	296				
	Total assets	3.594	1.033	296	296				
	Total liabilities	1.824	.686	296	296				
Total	Share Capital	2.361	1.276	296	296				
	Number of employees	2.060	.845	296	296				
	Business type	2.408	.557	296	296				
	Number of partners	2.273	1.148	296	296				
		Wilks' Lambda	F	df1	df2				
					Sig.				
Professional status		.994	1.777	1	294 .184				
Business experience		.631	171.637	1	294 .000				
Total assets		.583	209.870	1	294 .000				
Total liabilities		.839	56.414	1	294 .000				
Share Capital		.466	337.446	1	294 .000				
Number of employees		.961	11.854	1	294 .001				
Business type		.907	30.309	1	294 .000				
Number of partners		.759	93.438	1	294 .000				
Correlation		1	2	3	4	5	6	7	8
Professional status (1)		1.000	.094	-.160	-.066	-.123	-.091	.092	-.072
Business experience (2)		.094	1.000	.071	.075	-.102	-.044	-.037	.005
Total assets (3)		-.160	.071	1.000	.626	.679	.096	-.246	.527
Total liabilities (4)		-.066	.075	.626	1.000	.434	.043	-.213	.375
Share Capital (5)		-.123	-.102	.679	.434	1.000	.111	-.256	.652
Number of employees (6)		-.091	-.044	.096	.043	.111	1.000	-.077	.079
Business type (7)		.092	-.037	-.246	-.213	-.256	-.077	1.000	-.210
Number of partners (8)		-.072	.005	.527	.375	.652	.079	-.210	1.000

Table 6.19 indicates the level of significant of *Box's M* which suggests that we should reject the null hypothesis that the covariance matrices are equal. This is confirmed also

by the logs of the determinants of the variance-covariance matrices shown in Table 6.19. The logs of the determinants are quite different in value between the two groups.

Table 6.19: Test results and log determinants

Box's M		188.929
F	Approx.	5.046
	df1	36
	df2	85246.131
	Sig.	.000
	Rank	Log Determinant
Groups		
Not potential user	8	-6.382
Potential user	8	-5.467
Pooled within-groups	8	-5.076

The eigenvalue shown in Table 6.20 is remarkably large (2.023) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is about 0.82. The square of this coefficient shows that 67.2% of the variance of the dependent variable is explained or accounted for by this model (Norusis 2006, Metwally 2003). The Wilks' lambda associated with the discriminant function shown in Table 6.20 is 0.331. This is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 320.827, which is statistically significant at the 0.0 level with degrees of freedom equal to the number of predictor variables. Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users have the same average discriminant function score in the population (Norusis 2006 and Malhotra and Birks 2003).

Table 6.20: Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	2.023	100.0	100.0	.818
Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.331	320.827	8	.000

The absolute magnitude of the standardized canonical discriminant function coefficients shown in Table 6.21, suggests that share capital (0.954), business experience (0.642), number of partners (0.240) and total of liabilities (0.133) are the most important

variables in discriminating between the two groups of business firms (those who are potential users of Islamic methods of finance and those who are not).

Table 6.21: Standardized canonical discriminant function coefficients, structure matrix, functions at group centroids and classification results

Standardized canonical discriminant function coefficients		Function 1
Professional status		.001
Business experience		.642
Total of assets		.102
Total of liabilities		-.133
Share capital		.954
Number of employees		.078
Business type		-.006
Number of partners		-.240
Structure matrix		Function 1
Share capital		.753
Total of assets		.594
Business experience		.537
Number of partners		.396
Total of liabilities		.308
Business type		-.226
Number of employees		.141
Professional status		-.055
Functions at group centroids		Function 1
Groups		1
Not potential user		2.290
Potential user		-.877
classification results		Predicted Group Membership Total
Groups		Not potential user Potential user Not potential user
Original Count	Not potential user	79 3 82
	Potential user	7 207 214
%	Not potential user	96.3 3.7 100.0
	Potential user	3.3 96.7 100.0
A 96.6% of original grouped cases correctly classified		

However, this magnitude of the standardized coefficients takes into account the other variables in the model when compare relative contribution of the variables (Norusis 2006). According to Norusis (2006), to know the association of the individual variables with the discriminant function ignoring the other variables, using the structure matrix is the best. Thus, another way to assess the relative importance of the predictors can be obtained by examining the structure correlations between the values of the function and the values of the variables.

Table 6.21 indicates that share capital (0.753), total of assets (0.594), business experience (0.537) and number of partners (0.396) have much impact on Libyan business firms' attitudes towards Islamic methods of finance. The group centroids in Table 6.21 shows the unstandardized canonical discriminant functions evaluated at the group means. As shown group 1 (those who are not potential users of Islamic methods of finance) has a positive value while group 2 (those who are potential users of Islamic methods of finance) has a negative value. Since the sign associated with the value of share capital, total of assets and business experience in both standardized canonical discriminant function coefficients and structure matrix is positive, this suggests that a firm that has greater share capital, greater assets with relatively long experience will be among those who are not potential users of Islamic methods of finance. Therefore, Islamic methods of finance will be preferred by those firms with smaller share capital, smaller assets, and limited experience. This supports the Hypothesis 2 "Libyan business firms' socioeconomic and demographic factors influence the potential use of Islamic methods of finance". The classification matrix at the end of Table 6.21 gives hit ratio of 96.6% which indicates highly significant classification for most cases are included in the sample. In other words there are only ten cases that are misclassified and this is acceptable when one group is much smaller than another group (Norusis 2006).

#### **6.3.4 Motivating Factors for Potential Use of Islamic Methods of Finance**

Respondents of Libyan business firms are requested to indicate their degree of importance for 18 statements that represent beliefs and evaluated outcomes for potential users of Islamic methods of finance on a seven-point Likret scale. Table 6.22 details the means and standard deviations of the variable scores. The data in column two of Table 6.22 suggests that the primary motivations towards potential use of Islamic methods of finance are Islamic banks which may encourage business expansion and Islamic banks would share the risk of business with business firms. In contrast, Islamic bank's methods of finance are interest-free and Islamic banks provide lease financing (*Ijarah*). These are considered to be at the end of motivations' list.

Factor analysis (principal component analysis) is performed on the eighteen explanatory variables with the primary goal of data reduction. The data in the correlation matrix (not shown) illustrate that there are high correlations among the explanatory variables that are significant at the 0.000 level. This justifies the appropriateness of factor analysis to reduce these highly correlated variables to a small manageable number of factors. An investigation of the statistical results suggests that the coefficients on the diagonals of

the anti-image correlation matrix are greater than 0.5 for each variable. Therefore, there is no need to eliminate any of the variables. Also, all variables have a large correlation with more than one of the other variables. This also suggests the adequacy of the factor model (Malhotra 2006; Metwally 2000).

Table 6.22: Descriptive statistics

<b>Variables</b>	<b>Mean</b>	<b>Std. Devi</b>
An Islamic bank's methods of finance are interest-free.	3.1993	1.67660
An Islamic bank provides Islamic methods of finance in accordance with <i>Sharia</i> .	3.5507	1.72640
Deposits with Islamic banks would realise a higher and variable rate of return.	3.6791	1.59290
Religious motivation for depositing with an Islamic bank.	3.6284	1.92144
An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	3.6385	1.50290
Religious motivation for borrowing from Islamic banks.	3.7466	1.72911
An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	3.4358	1.71413
An Islamic bank would consider repayment of debt according to business conditions.	3.6419	1.80023
Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	3.7534	1.65601
Islamic bank would share the risk of business with a customer.	3.8176	1.92939
Profit/loss sharing method allows you to invest or borrow on a fair basis.	3.4223	1.09268
An Islamic bank may support you in your business management.	3.6149	1.49813
An Islamic bank would encourage business innovation.	3.4223	1.25713
An Islamic bank may encourage business expansion.	3.8547	1.13010
An Islamic bank would help you to improve business efficiency.	3.7500	1.51769
An Islamic bank provides lease financing ( <i>Ijarah</i> ).	3.3176	1.27046
An Islamic bank provides trade financing methods such as ( <i>Morabahah</i> ).	3.4662	1.41620
An Islamic bank provides industrial financing ( <i>Istisna</i> ).	3.5169	1.32501

As shown in Table 6.23, Bartlett's test of sphericity is used to test the null hypothesis that the variables are uncorrelated in the population. The test gives a value of 7583.466 which is highly significant favouring a rejection of the null hypothesis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is calculated. A value of 0.839 is obtained, this means that all of the partial correlation coefficients are small compared to the ordinary correlation coefficients. Therefore, this indicates that it's reasonable to go ahead with a factor analysis (Norusis 2006).

Table 6.23 also indicates relevant information after the desired numbers of factors have been extracted. The table shows the commonalities for the variables, along with the variance accounted for by each factor that is retained. It can be seen that 18 explanatory variables can be reduced to just four factors with an eigenvalue greater than 1. These four factors account for approximately 86.62% of the total variance. In addition, reproduced correlations matrix (not shown) indicates that the magnitudes of residuals are computed

between observed and reproduced correlations; only 16% of the residuals are greater than 0.05 (in absolute value). Accordingly, this also suggests the best fit for factor analysis model (Malhotra and Birks 2003).

Table 6.23: Eigenvalues and Total variance explained

No	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.268	45.931	45.931
2	4.071	22.618	68.548
3	1.996	11.088	79.637
4	1.258	6.988	86.624
5	.610	3.386	90.010
6	.382	2.122	92.132
7	.343	1.904	94.036
8	.223	1.239	95.275
9	.179	.996	96.271
10	.159	.885	97.156
11	.125	.693	97.849
12	.085	.471	98.320
13	.082	.457	98.777
14	.064	.357	99.134
15	.056	.309	99.443
16	.049	.272	99.714
17	.035	.195	99.910
18	.016	.090	100.000

Notes: (a) Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.839

(b) Bartlett's Test of Sphericity is 7583.466

(c) Significance is .000

Table 6.24 shows the rotated factor matrix obtained by the varimax procedure and indicates the factors and their coefficients used to interpret the factors in terms of the variables. Factor 1 has high coefficients (more than 0.5) on four variables which are shown with the shading in column 2. These are (i) An Islamic bank's methods of finance are interest-free, (ii) An Islamic bank provides Islamic methods of finance in accordance with *Sharih*, (iii) Religious motivation for depositing with an Islamic bank, and (iv) Religious motivation for borrowing from an Islamic bank. Hence, this factor can be labelled as "Religion". This labelling is created because of the fact that these motivations indicate respondents' reaction to comply with Islam.

Table 6.24: Rotated factor matrix

Variables	Factors			
	1	2	3	4
An Islamic bank's methods of finance are interest-free.	.920	.276	.054	.083
An Islamic bank provides Islamic methods of finance in accordance with <i>Sharia</i> .	.895	.285	.078	.119
Deposits with Islamic bank would realise a higher and variable rate of return.	.335	.902	-.135	.090
Religious motivation for depositing with Islamic bank.	.821	.321	-.080	.310
An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	.428	.815	-.036	.165
Religious motivation for borrowing from Islamic bank.	.822	.379	.212	.042
An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	.264	.812	.009	.194
An Islamic bank would consider repayment of debt according to business conditions.	.484	.576	.265	.290
Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	.084	-.006	.277	.861
An Islamic bank would share the risk of business with you.	.463	.764	.249	.080
Profit/loss sharing method allows you to invest or borrow on a fair basis.	-.065	.096	.520	.778
An Islamic bank may support you in your business management.	.122	-.034	.948	.216
An Islamic bank would encourage business innovation.	.081	.024	.937	.115
An Islamic bank may encourage business expansion.	-.059	.501	.624	.132
An Islamic bank would help you to improve business efficiency.	.108	-.046	.945	.214
An Islamic bank provides lease financing ( <i>Ijarah</i> ).	.255	.282	-.021	.831
An Islamic bank provides trade financing methods such as ( <i>Morabahah</i> ).	.329	.239	-.018	.851
An Islamic bank provides industrial financing ( <i>Istisna</i> ).	.007	.119	.490	.812

Factor 2 has high coefficients (more than 0.5) on five variables which are shown with the shading in column 3. These are (i) deposits with Islamic banks would realise a higher and variable rate of return, (ii) An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business, (iii) An Islamic bank may invest with customer according to profit sharing method only (*Mudarabah*), and (iv) An Islamic bank would consider repayment of debt according to business conditions, and (v) An Islamic bank would share the risk of business with you. These motivations generally promote respondents' wishes to increase profit and decline loss. This factor, therefore, can be labelled as "Profitability".

Factor 3 has high coefficients (more than 0.5) on four variables which are shown with the shading in column 4. These are namely; (i) An Islamic bank may support a customer in your business management, (ii) An Islamic bank would encourage business innovation, (iii) An Islamic bank may encourage business expansion, and (iv) An Islamic bank would help you to improve business efficiency. These motivations related to the business of the firms. Therefore, this factor can be labelled as "Business support".

Finally, Factor 4 has high coefficients (more than 0.5) on five variables which are shown with the shading in column 5. These motivations are, (i) An Islamic bank lends money according to profit/loss sharing method (*Musharakah*), (ii) Profit/loss sharing method allows you to invest or borrow on a fair basis, (iii) An Islamic bank provides lease financing (*Ijarah*), (iv) An Islamic bank provides trade financing methods such as (*Morabahah*), and (v) An Islamic bank provides industrial financing (*Istisna*). These variables represent new methods of finance that are not offered by conventional banks. Thus, this factor can be labelled as “Unique services”. To conclude this section of factor analysis, the Hypothesis 3 “various motivating factors influence the potential use of Islamic methods of finance by Libyan business firms” is supported. In particular, 18 explanatory variables listed in Table 6.24 are reduced to (Religion, Profitability, Business Support, and Unique Services).

### **6.3.5 Important Factors for the Potential Use of Islamic Methods of Finance**

As mentioned before, factor scores are suitable for use in subsequent multivariate analysis, including discriminant analysis and logistic regression, especially if the data is used for the original sample. Therefore, discriminant analysis is performed on the four factors’ scores (Religion, Profitability, Business Support, and Unique Services) as explanatory variables with the primary goal of determining which of these factors represents the most impact on the Libyan business firm’ attitudes towards the use of Islamic methods of finance. The respondents’ intention to use Islamic methods of finance is used as the dependent variable (potential use of Islamic methods of finance). Thus, firms are divided into two groups; namely, those who are potential users of Islamic methods of finance and those who are not potential users of Islamic methods of finance. Table 6.25 gives information between the mean and standard deviation for the two groups. The group means suggest that the two groups are widely separated in terms of the value of Factor scores 1 (Religion) and (Profitability).

Differences between the two groups are the least for factor scores 3 (Business Support) and 4 (Unique services). The Wilks’ is the proportion of the variance which is not explained by differences between the groups. Because all the Wilks’ lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The polled within-groups correlation matrix at the end of Table 6.25 indicates remarkable low correlations

between the factor scores. Therefore, multicollinearity is not a serious problem (Norusis 2006).

Table 6.25: Group statistics, tests of equality of group means and pooled within-groups matrices

Groups		Mean	Std.	Valid N (listwise)		
		Unweighted	Deviation Weighted	Unweighted	Weighted	
Not potential user	Factor score 1 (Religion)	-1.025	.211	82	82	
	Factor score 2 (Profitability)	-.893	.336	82	82	
	Factor score 3 (Business support)	-.445	.771	82	82	
	Factor score 4 (Unique services)	-.300	.210	82	82	
Potential user	Factor score 1 (Religion)	.392	.898	214	214	
	Factor score 2 (Profitability)	.342	.957	214	214	
	Factor score 3 (Business support)	.170	1.026	214	214	
	Factor score 4 (Unique services)	.115	1.148	214	214	
Total	Factor score 1 (Religion)	.000	1.000	296	296	
	Factor score 2 (Profitability)	.000	1.000	296	296	
	Factor score 3 (Business support)	.000	1.000	296	296	
	Factor score 4 (Unique services)	.000	1.000	296	296	
		Wilks' Lambda	F	df1	df2	
					Sig.	
Factor score 1 (Religion )		.596	199.628	1	294	.000
Factor score 2 (Profitability)		.693	130.210	1	294	.000
Factor score 3 (Business support)		.924	24.327	1	294	.000
Factor score 4 (Unique services)		.965	10.575	1	294	.001
		Factor score 1 (Religion)	Factor score 2 (Profitability)	Factor score 3 (Business support)	Factor score 4 (Unique services)	
Correlation	Factor score 1 (Religion)	1.000	-.548	-.237	-.156	
	Factor score 2 (Profitability)	-.548	1.000	-.191	-.126	
	Factor score 3 (Business support)	-.237	-.191	1.000	-.055	
	Factor score 4 (Unique services)	-.156	-.126	-.055	1.000	

Table 6.26 presents the level of significant of *Box's M* which suggests we should reject the null hypothesis that the covariance matrices are equal. This is also confirmed by the logs of the determinants of the variance-covariance matrices shown in Table 6.26. Clearly, the logs of the determinants are quite different in value between the two groups.

Table 6.26: Test results and log determinants

Box's M		434.435
F	Approx.	42.590
	df1	10
	df2	112694.158
	Sig.	.000

Groups	Rank	Log Determinant
Not potential user	4	-9.461
Potential user	4	-.809
Pooled within-groups	4	-1.715

The eigenvalue in Table 6.27 is quite large (4.643) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is about 0.91. The square of this coefficient shows that 82.8% of the variance of the dependent variable is explained or accounted for by this model (Norusis 2006; Metwally 2003). The Wilks' lambda associated with the discriminant function in Table 6.27 is 0.178. This is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 504.801, which is statistically significant at the 0.0 level with degrees of freedom equal to the factor scores. Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users, have the same average discriminant function score in the population (Norusis 2006, and Malhotra and Birks 2003).

Table 6.27: Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	4.634	100.0	100.0	.907
	Wilks' Lambda	Chi-square	df	Sig.
<b>Test of Function(s)</b>				
1	.178	504.801	4	.000

The absolute magnitude of the standardized canonical discriminant function coefficients in Table 6.28, suggests that religion (1.284), profitability (1.207) and business support (0.695) are the most important factors in discriminating between the two groups of

Libyan business firms. In particular, and once again religion is the primary motivation for the use of Islamic methods of finance among Libyan business firms.

Table 6.28: Standardized canonical discriminant function coefficients, structure matrix and classification results

Standardized canonical discriminant function coefficients		Function 1
Factor score 1 (Religion)		1.284
Factor score 2 (Profitability)		1.207
Factor score 3 (Business support)		.695
Factor score 4 (Unique services)		.479
Structure matrix		Function 1
Factor score 1 (Religion)		.383
Factor score 2 (Profitability)		.309
Factor score 3 (Business support)		.134
Factor score 4 (Unique services)		.088
Groups		Predicted Group Membership
		Total
		Not potential user      Potential user      Not potential user
Original Count	Not potential user	79      3      82
	Potential user	3      211      214
%	Not potential user	96.3      3.7      100.0
	Potential user	1.4      98.6      100.0
A 98.0% of original grouped cases correctly classified		

Structure matrix in Table 6.28 also indicates that religion (0.383) is the most important factor for the potential use of Islamic methods of finance by Libyan business firms. The classification matrix in Table 6.28 based on the sample analysis gives hit ratio of 98% indicating highly significant classification for most cases are included in the sample. In other words there are only six cases that are misclassified.

### 6.3.6 Potential Use of Islamic Methods of Finance

Libyan business firms' respondents are asked to indicate their intention to use Islamic methods of finance. In particular, information about Libyan business firms' potential use of Islamic methods of finance is shown in Table 6.29. Over two-third of Libyan firms (72.3 %) are potential users of Islamic methods of finance. From these potential users, most of them are partnerships. Most of them (73.4%) have total of assets between LYD101.000 to LYD500.000. Approximately, 50% of these potential users have business experience from 4 to 5 years with share capital between LYD50.000 to LYD100.000 and liabilities between LYD50.000 to LYD100.000. In addition, the majority of these business firms (80%) have been established by less than 20 people.

Table 6.29: Libyan business firms' potential use of Islamic methods of finance

Variables	Frequency	%	A potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
A potential user	214	72.3	214			
Not a potential user	82	27.7			82	
<b>Professional status</b>						
Trading	12	4.1	9	4.2	3	3.7
Manufacturing	50	16.9	33	15.5	17	20.7
Importing and exporting	60	20.3	41	19.1	19	23.2
Construction	66	22.3	49	22.9	17	20.7
Transport and storage	20	6.7	12	5.6	8	9.7
Services	78	26.3	64	29.9	14	17.1
Others	10	3.4	6	2.8	4	4.9
<b>Business Experience</b>						
Less than 1 year	9	3	9	4.2	0	0
2 to 3 years	86	29	84	39.3	2	2.4
4 to 5 years	122	41.3	103	48.1	19	23.2
More than 5 years	79	26.7	18	8.4	61	74.4
<b>Total assets</b>						
Less than L.D 50,000	2	0.8	2	0.9	0	0
50,000 to 100,000	45	15.2	44	20.6	1	1.2
101,000 to 300,000	95	32.1	93	43.5	2	2.4
301,000 to 500,000	83	28	64	29.9	19	23.2
More than L.D 500,000	71	23.9	11	5.1	60	73
<b>Total liabilities</b>						
Less than L.D 50,000	96	32.4	88	41.1	8	9.7
50,000 to 100,000	160	54	112	52.4	48	58.6
101,000 to 200,000	36	12.2	14	6.5	22	26.8
201,000 to 300,000	4	1.4	0	0	4	4.9
More than L.D 300,000	-	-	-	-	-	-
<b>Share capital</b>						
Less than 50,000	81	27.4	80	37.4	1	1.2
50,000 to 100,000	116	39.2	105	49.1	11	13.5
101,000 to 200,000	46	15.5	24	11.2	22	26.8
201,000 to 300,000	17	5.7	5	2.3	12	14.6
More than 300,000	36	12.2	0	0	36	43.9
<b>Number of employees</b>						
Less than 5 people	84	28.6	69	32.3	15	18.3
5 to 10 people	123	41.5	88	41.1	35	42.7
11 to 20 people	76	25.6	52	24.3	24	29.3
More than 20 people	13	4.3	5	2.3	8	9.7
<b>Business type</b>						
Family business	10	3.4	8	3.7	2	2.4
Joint venture	155	52.4	87	40.7	68	83
Partnership	131	44.2	119	55.6	12	14.6
<b>Number of partners</b>						
Less than 10 people	90	30.4	82	38.3	8	9.7
10 to 20 people	110	37.2	91	42.5	19	23.2

21 to 30 people	21	7.1	16	7.5	5	6.1
More than 30 people	75	25.3	25	11.7	50	61

However, 27.7% of respondents are not potential users of Islamic methods of finance and the majority of them have share capital greater than LYD100.000. Also, and noticeably most of them (73%) have total of assets greater than LYD500.000 and business experience more than five years. Finally, the majority of these not potential users were joint ventures.

### 6.3.7 The Probability of Applying Islamic Methods of Finance

A binary logistic regression is performed on the four factor scores (Religion, Profitability, Business support and Unique services) as explanatory variables with the primary goal of determining the probability of applying Islamic methods of finance by Libyan business firms. The potential use of Islamic methods of finance is representing dependent variable. Thus, respondents of firms are divided into two groups, those who are potential users of Islamic methods of finance and those who are not. Since the probability of an event must lie between 0 and 1, the criterion variable is the type of potential use (Y) where: Y is 1 if the respondent is a potential user of Islamic methods of finance, Y is 0 otherwise.

Forward-Stepwise selection method with maximum-likelihood computations of parameter estimates is used to obtain results for the binary logistic regression (Norusis 2005). Therefore, model employing the entire four of explanatory variables which are in three steps. The third step in table of variables not in the equation (not shown) indicates that the factor four (Unique services) is left out of the analysis. The reason for that is, it has value larger than 0.05 (.417) which is statistically insignificant. In other words, the business firms surveyed are indifferent in their consideration for this factor (Unique services) to apply Islamic methods of finance. The reason for that is due to their low level of awareness regarding these specific methods of finance as this study is mentioned in section 6.3.3. Thus, the focus among this analysis will be on the other three factors.

The estimated coefficient, standard errors, Wald statistic and significant values of parameters for the binary logistic regression are presented in Table 6.30. The ratio-change in the odds  $\text{Exp}(B)$ , the Nagelkerke  $R^2$  as an analogue for that used in the linear regression model and the Hosmer-Lemeshow test for model misspecification are also included in the Table 6.30. In addition, Table 6.30 includes the Bayesian information

correction (BIC), defined as the Wald statistic minus the logarithm of the sample size (logarithm of 296 is a value of 5.7). Since the sample is large, the strength of association is further evaluated using (BIC) ( Ipsen 2006). Finally, Table 6.30 includes the classification information that shows the practical results of using the logistic regression model.

Table 6.30: Logistic regression prediction of the potential use of Islamic methods of finance

Factor name	Logit	Standard error	Wald statistic	Sig	BIC	Exp (B)
Religion	6.674*	1.718	15.100	0.000	9.4	791.903
Profitability	2.168*	0.483	20.185	0.000	14.485	8.741
Business support	1.867*	0.897	4.335	0.037	- 1.365	6.466
Constant	4.781	1.281	13.921	0.000	8.221	119.201
Nagelkerke R <sup>2</sup>	0.949					
Hosmer-Lemeshow	0.858					
Groups		Predicted				
		Not potential users		Potential users		% correct
Not potential users		79		3		96.3
Potential users		2		212		99.1
Overall percentage						

Asterisks \* indicate significance at 5 % level.

As shown in Table 6.30, the Hosmer-Lemeshow statistic is 0.858 which is greater than 0.05 and this indicates that the model adequately fits the data. In other words, the Hosmer-Lemeshow tests fail to reject the null hypotheses of no functional misspecification. Therefore, it indicates that this model is appropriate for modelling the use of Islamic methods of finance in Libya (Hosmer and Lemeshow 2000). The Nagelkerke R<sup>2</sup> value is 0.949 which is adequate and illustrates that about 95% of the variation is explained by the logistic regression model. To test for multicollinearity, the correlations between the predicted factors are calculated. The correlation matrix (not shown) shows that the highest correlation is 0.484, which suggests that multicollinearity is not a serious problem in this analysis.

The estimated coefficients shown in the Table 6.30 (logit\* in column 2) indicate that the factors representing religion, profitability and business support are statistically significant and carry a positive sign. This suggests that more desire to comply with *Sharia*; the greater the motivation to increase of the profitability and more desire to obtain business support led to the higher probability of applying Islamic methods of finance by Libyan business firms. More particularly, religion increases the likelihood

of the use of Islamic methods of finance by 6.674 times, Profitability by 2.168 times, and business support by 1.867. In addition, they have large values for Exp(B) comprising 791.903, 8.741, and 6.466, respectively.

Using the BIC and in accordance with Raftery (1995) categorization, it is found that the religion and profitability factors have a very strong association with the use of Islamic methods of finance. Clearly, this indicates that religion and profitability represent the primary predictors for increasing the probability of applying Islamic methods of finance in Libya for business firms. Therefore, the Hypothesis 4 that stats “religion is a major influence on the likelihood of engaging in Islamic finance by Libyan business firms” is supported. To conclude, Table 6.30 ends with the prediction success information and shows that the model successfully classified the use of Islamic methods of finance for 98.3 % of respondents.

#### **6.4 Empirical Results for Libyan Banks**

For this group, a usable sample of 134 banks are completed the self-administrated phone interviews questionnaire, resulting in response rate of 63.8%. This empirical analysis starts with the main characteristic of the sample using descriptive statistics followed by six empirical steps of the research framework presented in previous chapter to test the hypotheses and to achieve this study’s objectives with regard to Libyan banks’ attitudes towards Islamic methods of finance.

##### **6.4.1. The Main Characteristics of the Sample for Libyan Banks**

The main characteristics of the sample for banks are shown in Table 6.31. This Table indicates at first potential use of Islamic methods of finance, 66.4% of respondents are potential users; however, 33.6% of them are not potential users. Some 43.3% of the respondents are private banks and 35.8% state banks.

Table 6.31: The main characteristics of the sample for Libyan banks

Variables	Frequency	%	Variables	Frequency	%
<b>Type of bank</b>					
State bank	48	35.8	Less than 10 years	65	48.5
Specialised bank	13	9.7	10 to 20 years	28	20.9
Regional bank	15	11.2	More than 20 years	41	30.6
Private bank	58	43.3			
<b>Bank categorization</b>					
General headquarter	29	21.7			
Main branch	31	23.1			
Branch	74	55.2			

More than one-fifth (55.2%) of the respondents have branches whereas only 21.7% represent general headquarters. Approximately, 50% of the respondents have been working in banking transactions during a period of less than 10 years. On the other hand, 30.6% of respondents have banking experience of more than 20 years.

#### **6.4.2 Awareness of Islamic Methods of Finance**

Table 6.32 illustrates the respondents of Libyan banks' managers' awareness of Islamic methods of finance aspects statistically. Collected data indicate some significant information regarding respondents' level of awareness about Islamic banking and their Islamic methods of finance. 98.5% of all respondents have knowledge about the existence of Islamic banks and *Musharakah*, *Bai Muajjall* and *Quard Hassan* are clearly known by 79.6 of all respondents. Also, *Quard Hassan* has been practiced by 88.1% of all respondents. This is due to the fact that most of their banks offer interest-free loans for people who are employees at banks. However, most respondents are uninformed regarding other Islamic finance method such as *Mudarabah*, *Morabahah*, and *Istisna*. Regarding the awareness effect on potential use of Islamic methods of finance, clearly Table 6.32 indicates that majority of respondents who are aware of Islamic methods of finance represent potential users.

Table 6.32: Libyan banks respondents' awareness of Islamic methods of finance

Variables	Frequency	%	A potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
A potential user	89	66.4	89			
Not a potential user	45	33.6				
<b>Knowledge about the existence of Islamic banks</b>						
Knowledgeable respondents	132	98.5	89	67.4	43	32.6
Unknowledgeable respondents	2	1.5	00	00	2	100
<b>Knowledge of Islamic methods of finance</b>						
Knowledgeable respondents in <i>Musharakah</i> , <i>Bai muajjall</i> and <i>Quard Hassan</i> only.	107	79.6	71	66.3	36	33.7
Unknowledgeable respondents	00	00	00	00	00	00
<b>Practice of Islamic methods of finance</b>						
Respondents practised <i>Quard Hassan</i> only.	118	88.1	74	62.7	44	37.3
Respondents do not practice any method.	3	2.2	2	66.6	1	33.4
<b>Respondents who are unaware of all previous awareness aspects.</b>						
00	00	00	00	00	00	00

In particular, 67.4% of 132 knowledgeable respondents of the existence of Islamic banks, 66.3% of 107 knowledgeable respondents in *Musharakah*, *Bai Muajjall* and *Quard Hassan* only and 62.7 of 118 respondents who practised *Quard Hassan* only are potential users. Therefore, this discussion indicates that Libyan banks' respondents' awareness of Islamic methods of finance has a positive effect on their potential use of Islamic methods of finance. Accordingly, Hypothesis 1 "Libyan banks' managers' awareness of Islamic methods of finance influences the potential use of Islamic methods of finance" is supported.

#### **6.4.3 Impact of Demographic and Socioeconomic Profiles**

In this study's questionnaire, the respondents are asked to indicate their bank' profiles namely, type of bank, bank categorization and banking experience. In addition, they asked about their intention to use Islamic methods of finance, which indicates their potential use of Islamic methods of finance. Discriminant analysis is performed on the three variables that represent banks' profiles as explanatory variables with the primary goal of determining which of these variables account the most impact on the Libyan banks' attitudes towards potential use of Islamic methods of finance. The potential use of Islamic methods of finance is used as dependent variable. Thus, respondents are divided into two groups, those who are potential users of Islamic methods of finance and those who are not.

Table 6.33 shows discriminant analysis results that include information between the mean and standard deviation for the two groups. The group means suggest that the two groups are widely separated in terms of value of the type of bank and banking experience. Differences between the two groups are the smallest for bank categorization. Also, because all the Willks' lambda values in Table 6.33 are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that, when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The polled within-groups correlation matrix at the end of Table 6.33 indicates remarkable low correlations between the factor scores. Therefore, multicollinearity is not a serious problem in this analysis (Norusis 2006).

Table 6.33: Group statistics, tests of equality of group means and pooled within-groups

Groups		Mean Unweighted	Std. Deviation		
			Weighted	Unweighted	Valid N (listwise) Weighted
Not potential user	Type of bank	1.533	.919	45	45
	Bank categorization	1.533	.726	45	45
	Banking experience	2.844	.366	45	45
Potential user	Type of bank	3.168	1.198	89	89
	Bank categorization	2.741	.489	89	89
	Banking experience	1.303	.530	89	89
Total	Type of bank	2.619	1.353	134	134
	Bank categorization	2.335	.812	134	134
	Banking experience	1.820	.874	134	134
		Wilks' Lambda	F	df1	df2
					Sig.
Type of bank		.672	64.453	1	132 .000
Bank categorization		.504	130.138	1	132 .000
Banking experience		.302	304.997	1	132 .000
		Type of bank	Bank categorization	Banking experience	
Correlation	Type of bank	1.000		-.234	-.477
	Bank categorization	-.234		1.000	-.089
	Banking experience	-.477		-.089	1.000

Table 6.34 indicates the level of significant of *Box's M* (0.001) which suggests that we should reject the null hypothesis of the covariance matrices is equal. This is confirmed also by the logs of the determinants of the variance-covariance matrices shown in Table 6.34. The logs of the determinants are quite different in value between the two groups.

Table 6.34: Test results and log determinants

Box's M		22.909
F	Approx.	3.708
	df1	6
	df2	51500.829
	Sig.	.001
		Rank
		Log Determinant
<u>Groups</u>		
Not potential user	3	-2.930
Potential user	3	-2.856
Pooled within-groups	3	-2.707

The eigenvalue in Table 6.35 is remarkably large (3.117) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is about 0.87. The square of this coefficient shows that 75.7% of the variance of the dependent variable is explained or accounted for by this model

(Norusis 2006, Metwally 2003). The Wilks' lambda associated with the discriminant function in Table 6.35 is 0.243. This is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 184.663, which is statistically significant at the 0.0 level with degrees of freedom equal to the number of predictor variables. Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users have the same average discriminant function score in the population (Norusis 2006; Malhotra and Birks 2003).

Table 6.35: Eigenvalues and Wilks' Lambda

	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation	
Function					
1	3.117	100.0	100.0	.870	
		Wilks' Lambda	Chi-square	df	Sig.
Test of Function(s)					
1		.243	184.663	3	.000

The absolute magnitude of the standardized canonical discriminant function coefficients in Table 6.36, suggests that banking experience (0.730), bank categorization (0.538) are the most important variables in discriminating between the two groups of business firms (those who are potential users of Islamic methods of finance and those who are not). However, type of bank (0.173) has the lowest importance impacting on Libyan banks' attitudes towards Islamic methods of finance. Another way to assess the relative importance of the predictors can be obtained by examining the structure correlations between the values of the function and the values of the variables. Table 6.36 indicates that banking experience (0.861), bank categorization (0.562) have much impact on Libyan banks' attitudes towards Islamic methods of finance.

The group centroids in Table 6.36 shows the unstandardized canonical discriminant functions evaluated at the group means. As shown in group 1 (those who are not potential users of Islamic methods of finance) has a positive value while group 2 (those who are potential users of Islamic methods of finance) has a negative value. Since the sign associated with the value of banking experience in both standardized canonical discriminant function coefficients and structure matrix is positive, this suggests that a bank that has greater banking experience will be among those who are not potential users of Islamic methods of finance. However, the sign associated with the value of bank categorization and type of bank in both standardized canonical discriminant function coefficients and structure matrix is negative, this suggests in accordance with the order of these variables in the questionnaire that most of general headquarters of the

state and specialised banks will be among those who are not potential users of Islamic methods of finance.

Table 6.36: Standardized canonical discriminant function coefficients, structure matrix, functions at group centroids and classification results

Standardized canonical discriminant function coefficients		Function			
		1			
Type of bank		-.173			
Bank categorization		-.538			
Banking experience		.730			
Structure matrix		Function			
		1			
Banking experience		.861			
Bank categorization		-.562			
Type of bank		-.396			
Functions at group centroids		Function			
Groups		1			
Not potential user		2.464			
Potential user		-1.246			
classification results		Total			
Predicted Group Membership		Total			
		Not potential user			
Groups		Not potential user			
Original	Count	Not potential user	45	0	45
		Potential user	3	86	89
%		Not potential user	100.0	.0	100.0
		Potential user	3.4	96.6	100.0
A 97.8% of original grouped cases correctly classified					

Therefore, Islamic methods of finance will be mostly preferred by private banks and their branches in general with limited banking experience. This supports the Hypothesis 2 for Libyan banks' attitudes towards Islamic methods of finance "Libyan banks' socioeconomic and demographic factors influence the potential use of Islamic methods of finance". The classification matrix at the end of Table 6.36 gives hit ratio of 97.8% which indicates highly significant classification for most cases included in the sample. In other words there are only three cases that are misclassified and this is acceptable when one group is much smaller than another group (Norusis 2006).

#### 6.4.4 Motivating Factors for Potential Use of Islamic Methods of Finance

Respondents of Libyan banks are requested to indicate their degree of importance for 14 statements that represent beliefs and evaluated outcomes for potential use of Islamic methods of finance on a seven-point Likret scale. Table 6.37 details the means and standard deviations of the variable scores. The data in column two of Table 6.37 suggest that the primary motivations towards potential use of Islamic methods of finance are

applying Islamic methods of finance may contribute in Libyan economic development and Islamic methods of finance allow bank to use unique financing methods such as lease financing. In contrast, Islamic methods of finance are interest-free and Islamic methods of finance may result in a more effective monitoring of loan financed are considered to be at the end of motivations' list.

Table 6.37: Descriptive statistics

<b>Variables</b>	Mean	Std. Devi
Islamic methods of finance are interest-free.	3.2836	1.62041
Islamic methods of finance are in accordance with <i>Sharia</i> .	3.6866	1.66980
Applying Islamic methods of finance may increase deposits of bank.	3.5299	1.28432
Islamic methods of finance may expand the market for loans.	3.7687	1.51640
Islamic methods of finance allow bank to use unique financing methods such as lease financing.	3.8433	1.56010
Return to banks under Islamic methods of finance could be higher than under traditional methods of finance.	3.7015	1.26865
Islamic methods of finance may result in a more effective monitoring of loan financed.	3.4776	1.19344
Islamic methods of finance may encourage starting businesses with small equity to borrow funds.	3.8209	1.40274
Profit/loss sharing method may promote the relationship between bank and customers.	3.5000	1.75040
Profit/loss sharing method allows bank to share risk of investment with borrower.	3.7313	1.14488
Sharing the profits could help the borrower to reduce the risk of default.	3.5000	1.22474
Repayment of debt could be easily controlled under Islamic methods of finance.	3.5149	1.40747
Applying Islamic methods of finance would increase profit of the bank.	3.5821	1.28202
Applying Islamic methods of finance may contribute in Libyan economic development.	3.8507	1.23549

Factor analysis (principal component analysis) is performed on the fourteen explanatory variables with the primary goal of data reduction. The data in the correlation matrix (not shown) illustrate that there are high correlations among the explanatory variables that are significant at the 0.0 level. This justifies the appropriateness of factor analysis to reduce these highly correlated variables to a small manageable number of factors. An investigation of the statistical results suggests that the coefficients on the diagonals of the anti-image correlation matrix are greater than 0.5 for each variable. Therefore, there is no need to eliminate any of the variables. Also, all variables have a large correlation with more than one of the other variables. This also suggests the adequacy of the factor model (Malhotra 2006; Metwally 2000).

As shown in Table 6.38, Bartlett's test of sphericity is used to test the null hypothesis that the variables are uncorrelated in the population. The test gives a value of 1658.071 which is highly significant favouring a rejection of the null hypothesis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is calculated. A value of 0.915 is

obtained, this means that all of the partial correlation coefficients are small compared to the ordinary correlation coefficients. Therefore, this indicates that it's reasonable to go ahead with a factor analysis (Norusis 2006).

Table 6.38: Eigenvalues and total variance explained

No	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.240	58.860	58.860
2	1.527	10.910	69.770
3	1.215	8.675	78.445
4	.608	4.346	82.791
5	.438	3.125	85.916
6	.381	2.724	88.640
7	.320	2.286	90.926
8	.276	1.968	92.894
9	.249	1.777	94.670
10	.199	1.421	96.092
11	.176	1.254	97.345
12	.131	.934	98.279
13	.126	.899	99.178
14	.115	.822	100.000

Notes: (a) Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.915

(b) Bartlett's Test of Sphericity is 1658.071

(C) Significance is .000

Table 6.38 also indicates relevant information after the desired number of factors has been extracted. The table shows the commonalities for the variables, along with the variance accounted for by each factor that is retained. It can be seen that 14 explanatory variables can be reduced to just three factors with an eigenvalue greater than 1. These three factors account for approximately 78.44% of the total variance. In addition, reproduced correlations matrix (not shown) indicates that the magnitudes of residuals are computed between observed and reproduced correlations; only 19% of the residuals are greater than 0.05 (in absolute value). Accordingly, this also suggests the best fit for factor analysis model (Malhotra and Birks 2003).

Table 6.39 shows the rotated factor matrix obtained by the varimax procedure and indicates the factors and their coefficients used to interpret the factors in terms of the variables. Factor 1 has high coefficients (more than 0.5) on five variables which are shown with the shading in column 2. These represent (i) Islamic methods of finance are interest-free, (ii) Islamic methods of finance may expand the market for loans, (iii) Islamic methods of finance allow bank to use unique financing methods such as lease financing Religious motivation for depositing with Islamic bank, (iv) Islamic methods

of finance may encourage starting businesses with small equity to borrow funds, and (v) Profit/loss sharing method may promote the relationship between bank and customers. Clearly, most of these variables help to expand market for loans and religious variables has lowest coefficient among them. Hence, this factor can be labelled as “Growth in demand for funds”.

Table 6.39: Rotated Factor Matrix

Variables	Factors		
	1	2	3
Islamic methods of finance are interest-free.	.675	.451	.279
Islamic methods of finance are in accordance with <i>Sharia</i> .	.157	.826	.345
Applying Islamic methods of finance may increase deposits of bank.	.321	.244	.817
Islamic methods of finance may expand the market for loans.	.841	.131	.184
Islamic methods of finance allow bank to use unique financing methods such as lease financing.	.815	.160	.342
Return to banks under Islamic methods of finance could be higher than under traditional methods of finance.	.315	.246	.717
Islamic methods of finance may result in a more effective monitoring of loan financed.	.035	.781	.486
Islamic methods of finance may encourage starting businesses with small equity to borrow funds.	.792	.327	.341
Profit/loss sharing method may promote the relationship between bank and customers.	.776	.208	.370
Profit/loss sharing method allows bank to share risk of investment with borrowers.	.178	.737	.431
Sharing the profits could help the borrowers to reduce the risk of default.	.517	.747	.037
Repayment of debt could be easily controlled under Islamic methods of finance.	.484	.803	.011
Applying Islamic methods of finance would increase profit of the bank.	.308	.217	.832
Applying Islamic methods of finance may contribute in Libyan economic development.	.495	.234	.519

Factor 2 has high coefficients (more than 0.5) on five variables which are shown with the shading in column 3. These are (i) Islamic methods of finance are in accordance with *Sharia*, (ii) Islamic methods of finance may result in a more effective monitoring of loan financed, (iii) profit/loss sharing method allows bank to share risk of investment with borrower, (iv) sharing the profits could help the borrower to reduce the risk of default, and (v) repayment of debt could be easily controlled under Islamic methods of finance. Even though religious factor has the highest coefficient among these variable, most of them aim to promote management effectiveness for loans. Therefore, this factor can be labelled as “effective management for loans”.

Finally, Factor 3 has high coefficients (more than 0.5) on four variables which are shown with the shading in column 4. These are; (i) applying Islamic methods of finance may increase deposits of bank, (ii) return to banks under Islamic methods of finance could be higher than under traditional methods of finance, (iii) applying Islamic

methods of finance would increase profit of the bank; and (iv) applying Islamic methods of finance may contribute in Libyan economic development. These motivations related to the bank's objective to increase profits. This factor therefore, can be labelled as "profitability". To conclude, the Hypothesis 3 "various motivating factors influence the potential use of Islamic methods of finance by Libyan banks" is supported. In particular, 14 explanatory variables listed in table 36 are reduced to (Growth in demand for funds, effective management for loans; and Profitability).

#### **6.4.5 Important Factors for the Potential Use of Islamic Methods of Finance**

Discriminant analysis is performed on the four factors' scores (Growth in demand for funds, effective management for loans and Profitability) as explanatory variables with the primary goal of determining which of these factors represents the most impact on the Libyan banks' attitudes towards the use of Islamic methods of finance. The respondents' intention to use Islamic methods of finance is used as the dependent variable (Potential use of Islamic methods of finance). Thus, banks are divided into two groups; namely, those who are potential users of Islamic methods of finance and those who are not potential users of Islamic methods of finance. Table 6.40 illustrates information between the mean and standard deviation for the two groups. The group means suggest that the two groups are widely separated in terms of the value of factor scores 1 (Growth in demand for funds) and factor scores 3 (Profitability).

Differences between the two groups are the smallest for factor scores 2 (Effective management for loans). The Wilks' is the proportion of the variance is not explained by differences between the groups. Because all the Wilks' lambda values are smaller than 1, the most of the observed variability can be attributed to differences between groups (Norusis 2006). Moreover, the significance of the univariate ratios shows that when the predictors are considered individually, all predictors significantly differentiate between the two groups (Metwally 2000). The polled within-groups correlation matrix at the end of Table 6.40 indicates remarkable low correlations between the factor scores. Therefore, multicollinearity is not a serious problem (Norusis 2006).

Table 6.41 presents the level of significant of *Box's M* which suggests we should reject the null hypothesis that the covariance matrices are equal. This is also confirmed by the logs of the determinants of the variance-covariance matrices shown in Table 6.41. Clearly, the logs of the determinants are quite different in value between the two groups.

Table 6.40: Group statistics, tests of equality of group means and pooled within-groups matrices

Groups		Mean	Std.	Valid N (listwise)		
		Unweighted	Deviation Weighted	Unweighted	Weighted	
Not potential users	Factor score 1 (Growth in demand for funds)	-1.013	.638	45	45	
	Factor score 2 (Effective management for loans)	-.497	.406	45	45	
	Factor score 3 (Profitability)	-.514	.935	45	45	
Potential users	Factor score 1 (Growth in demand for funds)	.512	.719	89	89	
	Factor score 2 (Effective management for loans)	.251	1.112	89	89	
	Factor score 3 (Profitability)	.259	.9326	89	89	
Total	Factor score 1 (Growth in demand for funds)	.000	1.000	134	134	
	Factor score 2 (Effective management for loans)	.000	1.000	134	134	
	Factor score 3 (Profitability)	.000	1.000	134	134	
		Wilks' Lambda		F	df1	df2
						Sig.
Factor score 1 (Growth in demand for funds)		.477		144.628	1	132
Factor score 2 (Effective management for loans)		.874		19.045	1	132
Factor score 3 (Profitability)		.865		20.545	1	132
		Factor score 1 (Growth in demand for funds)	Factor score 2 (Effective management for loans)	Factor score 3 (Profitability)		
Correlation						
Factor score 1 (Growth in demand for funds)		1.000		-.398		-.413
Factor score 2 (Effective management for loans)			-.398		1.000	-.150
Factor score 3 (Profitability)				-.413	-.150	1.000

Table 6.41: Test results and log determinants

Box's M		47.197
F	Approx.	7.639
	df1	6
	df2	51500.829
	Sig.	.000
	Rank	Log Determinant
Groups		
Not potential user	3	-3.407
Potential user	3	-1.095
Pooled within-groups	3	-1.508

The eigenvalue in Table 6.42 is quite large (3.621) and it accounts for 100% of the explained variance. The canonical correlation is another measure of the degree of association between the discriminant scores and the groups. The canonical correlation of the discriminant function is about 0.885. The square of this coefficient shows that 78.3% of the variance of the dependent variable is explained or accounted for by this model (Norusis 2006; Metwally 2003).

Table 6.42: Eigenvalues and Wilks' Lambda

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	3.621	100.0	100.0	.885
	Wilks' Lambda	Chi-square	df	Sig.
Test of Function(s)				
1	.216	199.745	3	.000

The Wilks' lambda associated with the discriminant function in Table 6.42 is 0.216. This is the ratio of the within-groups sum of squares to the total sum of squares. This can be transformed to a chi-square value of 199.745, which is statistically significant at the 0.0 level with degrees of freedom equal to the factor scores. Therefore, it is acceptable to reject the null hypothesis that respondents who are potential users have the same average discriminant function score in the population (Norusis 2006 and Malhotra and Birks 2003).

The absolute magnitude of the standardized canonical discriminant function coefficients in Table 6.43, suggests that growth in demand for funds (1.213), profitability (0.829) are the most important factors in discriminating between the two groups of Libyan banks. In particular, growth in demand for funds is the primary motivation for the use of Islamic methods of finance among Libyan banks. Structure matrix in Table 6.43 also indicates that growth in demand for funds (0.550) is the most important factor for the potential use of Islamic methods of finance by Libyan banks. The classification matrix in Table 6.43 based on the sample analysis gives hit ratio of 95.5% indicating highly significant classification for most cases included in the sample. In other words there are only six cases that are misclassified.

Table 6.43: Standardized canonical discriminant function coefficients, structure matrix and classification results

Standardized canonical discriminant function coefficients			Function 1
Factor score 1 (Growth in demand for funds)			1.213
Factor score 2 (Effective management for loans)			.806
Factor score 3 (Profitability)			.829
Structure matrix			Function 1
Factor score 1 (Growth in demand for funds)			.550
Factor score 3 (Profitability)			.207
Factor score 2 (Effective management for loans)			.200
Groups		Predicted Group Membership	Total
		Not potential user	Potential user
Original Count	Not a potential user	43	2
	A potential user	4	85
%	Not a potential user	95.6	4.4
	A potential user	4.5	95.5
A 95.5% of original grouped cases correctly classified.			

#### 6.4.6 Potential Use of Islamic Methods of Finance

Libyan banks' respondents are asked to indicate their intention to use Islamic methods of finance. In particular, Table 6.44 gives characteristics of Libyan banks' potential use of Islamic methods of finance motivating beliefs and outcomes. About two-third of Libyan banks (66.4 %) are potential users of Islamic methods of finance. In other words, most of Libyan banks are prepared to open specific windows to apply Islamic methods of finance. More than 60% of these potential users are private banks and more than three-fourth of them are branches.

The majority of these potential users also have banking experience of less than 10 years. However, over one-third of respondents are not potential users of Islamic methods of finance and the majority of them are state banks. Also, and noticeably 60% of these not potential users are general headquarters. Most of these potential users (84.5%) have working banking period more than 20 years.

Table 6.44: Libyan banks' potential use of Islamic methods of finance

Variables	Frequency	%	Potential user	%	Not a potential user	%
<b>Potential use of Islamic methods of finance</b>						
A potential user	89	66.4				
Not a potential user	45	33.6				
<b>Type of bank</b>						
State bank	48	35.8	17	19.1	31	68.9
Specialised bank	13	9.7	6	6.7	7	15.6
Regional bank	15	11.2	11	12.4	4	8.9
Private bank	58	43.3	55	61.8	3	6.6
<b>Bank categorization</b>						
General headquarter	29	21.7	2	2.2	27	60
Main branch	31	23.1	19	21.4	12	26.7
Branch	74	55.2	68	76.4	6	13.3
<b>Banking experience</b>						
Less than 10 years	65	48.5	65	73	00	00
10 to 20 years	28	20.9	21	23.6	7	15.5
More than 20 years	41	30.6	3	3.4	38	84.5

#### 6.4.7 The Probability of Applying Islamic Methods of Finance

A binary logistic regression is performed on the four factor scores (Growth in demand for funds, effective management for loans, and Profitability) as explanatory variables with the primary goal of determining the probability of applying Islamic methods of finance by Libyan banks. The potential use of Islamic methods of finance is representing dependent variable. Thus, respondents of banks are divided into two groups, those who are potential users of Islamic methods of finance and those who are not. Since the probability of an event must lie between 0 and 1, the criterion variable is the type of potential use (Y) where: Y is 1 if the respondent is potential user of Islamic methods of finance, Y is 0 otherwise.

Forward-Stepwise selection method with maximum-likelihood computations of parameter estimates is used to obtain results for the binary logistic regression (Norusis 2005). Therefore, model employing all the three explanatory variables are in three steps. The estimated coefficient, standard errors, Wald statistic and significant values of parameters for the binary logistic regression are provided in Table 6.45. The ratio-change in the odds  $\text{Exp}(B)$ , the Nagelkerke  $R^2$  as an analogue for that used in the linear regression model and the Hosmer-Lemeshow test for model misspecification are also included. In addition, Table 6.45 includes the Bayesian information correction (BIC), defined as the Wald statistic minus the logarithm of the sample size (logarithm of 134

has a value of 5.35). Since the sample is large, the strength of association is further evaluated using (BIC) (Ipsen 2006). Finally, Table 6.45 includes the classification information that shows the practical results of using the logistic regression model.

Table 6.45: Logistic regression prediction of the potential use of Islamic methods of finance

Factor name	Logit	Standard error	Wald statistic	Sig	BIC	Exp (B)
Growth in demand for funds	2.625*	0.470	31.178	0.000	25.828	13.809
Effective management for loans	1.691*	0.613	7.612	0.006	2.262	5.425
Profitability	1.416*	0.411	11.883	0.001	6.533	4.119
Constant	1.874	0.604	9.639	0.002	4.289	6.514
Nagelkerke R <sup>2</sup>	0.852					
Hosmer-Lemeshow	0.876					
Groups		Predicted				
		Not potential users	Potential users		% correct	
Not potential users		43	2		95.6	
Potential users		4	85		95.5	
Overall percentage					95.5	

Asterisks \* indicate significance at 5 % level.

As shown in Table 6.45, the Hosmer-Lemeshow statistic is 0.876 which is greater than 0.05 and this indicates that the model adequately fits the data. In other words, the Hosmer-Lemeshow tests fail to reject the null hypotheses of no functional misspecification. Therefore, it indicates that this model is appropriate for modelling the use of Islamic methods of finance in Libya (Hosmer and Lemeshow 2000). The Nagelkerke R<sup>2</sup> value is 0.852 which is adequate and illustrates that about 95% of the variation in is explained by the logistic regression model. To test for multicollinearity, the correlations between the predicted factors are calculated. The correlation matrix (not shown) shows that the highest correlation is 0.369, which suggests that multicollinearity is not a serious problem in this analysis.

Start with the model predicting the potential use of Islamic methods of finance in Table 6.45. The estimated coefficients (logit\* in column 2) indicate that the factors representing growth in demand for funds, affective management for loans, and profitability are statistically significant and carry a positive sign. This suggests that more desire to expand market to increase the demand on funds; greater the motivation to obtain effective management for loans and greater wishes for the profitability led to the

higher probability of applying Islamic methods of finance by Libyan banks. In particular, the desire for growth in demand for funds increases the likelihood of the use of Islamic methods of finance by 2.625 times, effective management for loans by 1.691, and Profitability by 1.416 times. In addition, they have large values for Exp(B) comprising 13.809, 5.425, and 4.119, respectively.

Using the BIC and in accordance with Raftery (1995) categorization, it is found that the growth in demand for funds factor has a very strong association with the use of Islamic methods of finance and effective management for loans factor has a weak association. However, the profitability factor has a strong association with the use of Islamic methods of finance. Clearly, this indicates that growth in demand for funds represents the primary predictor for increasing the probability of applying Islamic methods of finance by Libyan banks. Therefore, the Hypothesis 6 that stats “religion is a major influence on the likelihood of engaging in Islamic finance by Libyan banks” is not supported. To conclude, Table 6.45 ends with the prediction success information and shows that the model successfully classified the use of Islamic methods of finance for 95.5% of respondents.

## **6.5 Concluding Remarks**

In accordance with the modified and proposed theoretical model adopted from theory of reasoned action, this chapter summarises the research results and findings of Libyan's attitudes towards Islamic methods of finance, several points should be emphasised. These are discussed in terms of the three groups studied; Libyan retail consumers, business firms and banks.

Firstly, 385 Libyan retail consumers' attitudes towards Islamic methods of finance are investigated a cross six steps of research framework presented in the methodology chapter using descriptive statistics and three statistical techniques, discriminant analysis, factor analysis and binary logistic regression. The results indicate that the majority of Libyan retail consumers are potential users of Islamic methods of finance. In particular, the four hypotheses regarding this group are tested and supported. Secondly, 296 Libyan business firms' attitudes towards Islamic methods of finance are studied also a cross six steps of research framework presented in the methodology chapter. The results illustrate that most of Libyan business firms are potentially prepared to use Islamic methods of finance. The hypotheses from one to four for Libyan business firms are tested and supported.

Finally, a sample of 134 Libyan banks' attitudes towards Islamic methods of finance, examined also cross six steps of this study's research framework. The results show that approximately two-third of Libyan banks is potentially prepared to apply Islamic methods of finance. The results for this group present that the hypotheses1, 2, and 3 are tested and supported; however, the 4 hypothesis is tested and not supported. Particularly, this study finds out that growth in demand for funds is a major influence on the likelihood of engaging in Islamic finance by Libyan banks instead of religious factors.

## CHAPTER 7: CONCLUSION

### 7.1 Introduction

In this thesis, the Libyan attitudes towards Islamic methods of finance, the research moves from the structural investigation of the Libyan banking system to definitional issues related to Islamic methods of finance themselves and past literature regarding attitudes towards Islamic banking and then to an empirical study in Libyan retail consumers, business firms, and banks context have been discussed. The present chapter seeks to provide combined discussion of this study's results, the theoretical contributions, empirical implications, research limitations and areas for future investigations of study.

The chapter itself is divided into 6 sections. Sections 2 represent a general summary of the thesis, incorporating both theoretical and empirical concerns, and attempts to relate the results of the current empirical analysis to the previous literature. The research contributions include the theoretical contributions and this study's implications for practice and policy are provided in Section 3. Research limitations are discussed in Section 4. Areas for further investigations are recommended in Section 5. Finally, some concluding remarks are presented in Section 6.

### 7.2 Summary

Libyan economy as a developing economy has been affected by petroleum revenue during the last 3 – 4 decades since the beginning of 1960s. Also, the nationalization and the development plans that have been made by the new government in the beginning of 1970s have exerted a great impact on the development of the Libyan economy positively. However, the stopping of the development plans during the period from 1986 to 2000 had negative effect on the development of the Libyan economy especially with largely government-controlled (Abohobiel 2003). Regarding Libyan finance system, it is still a small system that has been controlled by driven economy especially with the fact that the Libyan finance system is suffering from the lack of the securities exchange for several decades. The Libyan banking system is affected by the absence of the securities exchange as well and the domination of the Central Bank of Libya which had direct controls on credit and interest rates. In addition, it is worth noting in the Libyan banking context that the lack of Islamic banks can exert negative impacts on the role of financial investment in Libya. In contrast, the recent stages that have been made by Libyan government to move towards the market economy and opening the door for

foreign investments represent the first step for more development in Libyan banking system specifically and the Libyan economy as a whole. For instance, establishing Islamic banks that have practised Islamic methods of finance in other countries in accordance with Islamic *Sharia* can be an important attempt to improve banking services and products.

Islamic finance is a financial system that is in accordance to the principles of Islamic *Sharia*, and the six sources of Islamic *Sharia* compose of *Holy Quran, Hadith, Sunna, Ijma, Qiyas* and *Ijtihad* (Warde 2000). The principles of Islamic finance are inferred from Islamic *Sharia* to provide guidelines to people in their financial transactions. The most significant of these principles is the prohibition of *Riba* and *Gharar* which underpin commercial activities, but using the profit/loss sharing between people or people and firms as a financial equity method side by side to other Islamic methods of finance. Islamic banking theory is based mostly on the prohibition of interest and the introduction of profit/loss sharing schemes and other accepted methods of finance as well as offering banks' operations such as deposit accounts (Obaidullah 2005). Currently Islamic banks consist of social banks, development banks, commercial banks and holding banks. These Islamic banks introduce a new contractual relationship between depositors and bankers and net profits are distributed among the depositors and shareholders while losses are shared according to each party's contribution. In particular, there are many types of Islamic methods of finance that are linked to different economic activities, but those discussed in this study are common in theory and practice especially in Islamic banks as institutions (Iqbal and Molyneux 2005). These methods are, *Mudarabah, Musharakah, Murabaha, Bai Mmuajjal, Bai Salam, Istisna, Ijarah* and *Quard*.

Libyan attitudes towards Islamic methods of finance are investigated in this thesis as a first attempt in the Libyan context and one of few globally studies applies theoretically modified proposed model adopted from the Theory of Reasoned Action (Ajzen and Fishben 1980) to analyse theses attitudes. The main objective of this study is to indicate level of awareness, attitudes towards, motivations for and the probability of applying Islamic methods of finance by Libyan retail consumers, business firms and banks. Three comprehensive surveys are conducted to achieve this objective. Descriptive analysis and multivariate statistical analysis, (specifically factor analysis, discriminant analysis and a binary logistic regression) are used to analyse the results of the survey.

In this thesis, a usable sample of 385 retail consumers are investigated with regard to four research questions. Starting with first question (does awareness of Islamic methods of finance influence Libyan retail consumers' attitudes towards the use of Islamic finance?), the results indicate that the majority of Libyan retail consumers have knowledge of the existence of Islamic banks, more than two-third of them have clear knowledge about *Musharakah* and *Quard Hassan* and *Quard Hassan* and have practised by about one-fifth of them. However, most of retail consumers are uninformed regarding the specific methods of finance such as *Mudarabah*, *Morabahah*, *Bai Muajall*, *Istisna*. Clearly, most of retail consumers have good level of awareness about the existence of Islamic banking and some of their methods of finance, but they are unaware of the specific methods of finance. These results are supported by the past literature by many studies such as Rammal and Zurbruegg (2007), Okumus (2005), Bley and Kuehn (2004), Hamid and Nordin (2001). The results also illustrate that the majority of retail consumers who are aware of the existence of Islamic banking and some of their methods of finance represent potential users of Islamic methods of finance. This provides answer for the question that the retail consumers' level of awareness has positive impact on their potential use of Islamic methods of finance.

Libyan retail consumers' demographic and socioeconomic variables including, sex, age, education, professional status, monthly income, nationality and their potential use of Islamic methods of finance are used to answer the second research question (do socioeconomic, demographic and other factors influence Libyan retail consumers' attitudes towards Islamic finance?). The findings indicate that profession status, monthly income, age and the level of education have influenced the Libyan retail consumers' potential use of Islamic methods of finance. In other words the results confirm that Islamic methods of finance are preferred by the elderly and public servants with relatively low incomes. This has been supported by Zainuddin, Jahyd and Ramayah (2004) and Metwally (2002).

According to the research question (what are the principal motivating factors towards the potential use of Islamic finance by Libyan retail consumers?), Libyan retail consumers are requested to indicate their degree of importance for 16 statements that represent beliefs and evaluated outcomes for potential use of Islamic methods of finance. The results show the retail consumers are motivated to use Islamic methods of finance by several potentially highly correlated variables that reduced to a smaller

number of common factors namely Muslims services, profitability, religion and unique services.

In retail consumers context, discriminant analysis are performed on previous four motivated factors to explore which of them has a significant influence on the retail consumers' potential use of Islamic methods of finance. In accordance with findings indicated by Okumus (2005), Metawa and Almossawi (1998), Metwally (1996), and Omer (1992), the results of this thesis provide the same evidence that religious factors have a significant influence on Libyan retail consumer attitudes towards potential use of Islamic methods of finance.

Regarding the proportion of this group's potential use of Islamic methods of finance and its relations with retail consumers' profiles, Firstly, and similar to Zainuddin, Jahyd and Ramayah (2004), Gerrard and Cunningham (1997), Metwally (1996), and Hegazy (1995) the results show that the majority of Libyan retail consumers are potential users of Islamic methods of finance. Most of these potential users are males in particular public servants who work in public sector. In addition, a majority of Libyans have moderate monthly income. Over three-fourth of potential users are aged more than 36 years old with intermediate or high level of education. However, most of the respondents who are not potential users of Islamic methods of finance are younger than 36 years old, self-employed and majority of them have high monthly income.

Finally, the last research question regard to Libyan retail consumers is designed to know the future probability of the use of Islamic methods of finance by retail consumer (Is religion a major influence on the likelihood of engaging in Islamic finance by Libyan retail consumers?). The findings indicate that religion increases the likelihood of the use of Islamic methods of finance by greatest number of times. Therefore, religion represents the primary predictor for increasing the probability of applying Islamic methods of finance in Libya for retail consumers. In other words, religious factors are a function of the future probability of the use of Islamic methods of finance by Libyan retail consumers. It is worth noting that while many studies in the past including Okumus (2005), Metawa and Almossawi (1998), Metwally (1996), and Omer (1992) approve that religious factors have a significant influence on retail consumer attitudes towards the Islamic methods of finance, there are no studies concerning the probability of applying Islamic methods of finance.

Similarly to previous category, there are four research questions designed to guide analysis of level of awareness and attitudes of 296 Libyan business firms towards Islamic methods of finance. They are, does awareness of Islamic methods of finance influence Libyan business firms' attitudes towards the use of Islamic finance?, do socioeconomic, demographic and other factors influence Libyan business firms' attitudes towards Islamic finance?, what are the principal motivating factors towards the potential use of Islamic finance by Libyan business firms?, and is religion the major influence on the likelihood of engaging in Islamic finance by Libyan business firms?

Similar to the findings of Ahamad and Haron (2002) who studied forty-five Malaysian corporate customers, the investigation for first question indicates that the majority of Libyan business firms' respondents are aware about the existence of Islamic banking and some of their Islamic methods of finance, but they are unaware of specific methods of finance. In particular, 88.5% of all Libyan business firms' respondents have knowledge about the existence of Islamic banks and *Musharakah* and *Quard Hassan* are clearly known by over two-third (71.3%) of them as well as *Musharakah* has been practised by 72.3% of them. However, they are unaware regarding specific Islamic finance methods. Furthermore, Libyan firms' respondents' awareness of Islamic methods of finance has influenced their potential use of Islamic methods of finance.

Professional status, business experience, assets, liabilities, share capital, number of employees, business type and number of partners of Libyan business firms' and their potential use of the Islamic methods of finance were used to answer the second question. The results of discriminant analysis illustrate that shared capital, total of assets, business experience have much impact on Libyan business firms' attitudes towards Islamic methods of finance. In particular, Islamic methods of finance are preferred by those firms with smaller share capital, smaller assets, and limited experience. However, firms with bigger share capital, greater assets, and relatively longer experience are those who are not potential users. They used to deal with conventional banks for long time and it is not easy for them to move to other financial institutions.

The results indicate that Libyan business firms are motivated to use Islamic methods of finance by 18 potentially highly correlated variables. Using factor analysis they were reduced to a smaller number of common factors namely religion, profitability, business support, and unique services. Discriminant analysis is performed on these four factors to explore which of them has much impact on Libyan firms' potential use of Islamic

method of finance. Even though business support has remarkable impact on business firms' attitudes, once again the results show that religion factor is the most important factor for the potential use of Islamic methods of finance by Libyan business firms. Therefore, Religious factors have a significant influence on Libyan business firms' attitudes towards potential use of Islamic methods of finance. However, findings by Jalaluddin (1999a) focusing on small business firms in Australia consider business support to be the main motivation to use profit/loss sharing methods of finance. This could be according to the absence of the effect of Islam on these Australian firms.

According to the past literature, while Edris (1997) in his study for large, medium and small business customers' bank selection criteria in Kuwait indicate that the majority of the businesses deal with conventional banks much more than Islamic banks, Jalaluddin (1999a) observed that 59.5% of Australian small business firms indicated an interest in the profit/loss sharing methods of finance as an alternative methods of financing. Since the large and medium business firms in Kuwait are state firms, their dealing were mostly with conventional banks that were mostly state banks (Edris 1997). The results of this study similarly to Jalaluddin (1999a) indicate that 72.3% of Libyan business firms are potential users of Islamic methods of finance. From these potential users, most of them have partnerships with moderate total assets and 50% of these potential users have business experience of 4 to 5 years with share capital less than LYD100.000. However, 27.7% of respondents are not potential users of Islamic methods of finance and the majority of them have share capital greater than LYD100.000. Also, and most of them have total of assets greater than LYD500.000 and business experience more than five years. Finally, the majority of these not potential users have joints ventures.

Finally, in accordance with the results of the binary logistic regression employed to determine the probability of applying Islamic methods of finance by Libyan business firms, religion increases the likelihood of the use of Islamic methods of finance by 6.674 times. Thus, religious factors are a function of the future probability of the use of Islamic methods of finance by Libyan business firms. However, in the past literature, Jalaluddin and Metwally (1999) indicated that probability of applying profit/loss sharing methods of finance by small business firms in Australia were dependent on a high degree of risk in their business, with a high expected rate of return.

While level of awareness and attitudes towards Islamic methods of finance in financial institutions is limited to three studies, this study attempts to provide critical investigation for these issues in Libyan banks context. First of all, research question

which requests Libyan banks' respondents' awareness level of Islamic methods of finance, and is this influences their potential use of Islamic method of finance, the findings of this study indicate that approximately all respondents have knowledge about the existence of Islamic banks and *Musharakah*, *Bai Muajjall*, *Quard Hassan* are clearly known by most of them, and *Quard Hassan* has been practised by the majority of them. This is due to the fact that most of their banks offer interest-free loans for people who are employees of these banks. However, most of respondents are unaware of other Islamic finance method such as *Mudarabah*, *Morabahah*, and *Istisna*. These results are relatively similar to the findings of Abdullah and Abdul Rahman (2007). In addition, this study confirmed that Libyan banks' respondents' awareness of Islamic methods of finance has a direct and positive effect on their potential use of Islamic methods of finance. Secondly, even though there no study, in the past literature, that considers the influence of the banks' demographic and socioeconomic profiles on their potential use of Islamic methods of finance, the current study has analysed this issue for 134 banks in Libya. The findings illustrate that banking experience, bank categorization have much impact on Libyan banks' attitudes towards Islamic methods of finance. In other words, this study suggests that a bank which has greater banking experience will be among those who are not potential users. In particular, the results indicate that Islamic methods of finance are mostly preferred by private banks and their branches in general with limited banking experience in Libya.

Thirdly, the motivated factors determine the banks' attitudes towards potential use of Islamic methods of finance has been studied for 80 Australian financial institutions by Jalaluddin (1999b). His results show that these financial institutions are motivated with four main factors namely business support, growth in demand for funds, risk of default under the conventional system and potential higher return to lenders. Additionally, business support is the primary motivation for Australian financial institutions to apply profit/loss sharing methods of finance. Whereas, this study's findings indicate that Libyan banks are motivated with three main factors namely growth in demand for funds, effective management for loans; and profitability. The findings also illustrate that growth in demand for funds has a significant influence on Libyan banks' attitudes towards potential use of Islamic methods of finance.

Regarding potential use of Islamic methods of finance, Karbhari, Nasser and Shahin (2004) indicate that financial institutions in London, United Kingdom are in majority convinced about involving Islamic methods of finance in conventional banks'

operations and these would promote the establishment of Islamic banks in the UK. Also, 41.2% of the Australian financial institutions are prepared to lend funds on profit/loss sharing basis Jalaluddin (1999b). Accordingly, this study finds that about two-third of Libyan banks (66.4 %) are potential users of Islamic methods of finance. More than 60% of these potential users are private banks and more than three-fourth of them are their branches. The majority of these potential users also have banking experience less than 10 years. However, over one-third of respondents are not potential users of Islamic methods of finance and the majority of them are state banks. Noticeably 60% of these not potential users were general headquarters and most of these not potential users (84.5%) have been working for more than 20 years.

Finally, since there is no study in the past literature that focused on examining the future likelihood of the use of Islamic methods of finance by financial institutions, this study represents the first research analyses for Libyan banks. The results indicate that they have high desire to expand the market to increase the demand on funds; greater the motivation to obtain effective management for loans and greater wishes for the profitability; they have higher likelihood of applying Islamic methods of finance in Libyan banks. In particular, the desire for growth in demand for funds increases the likelihood of the use of Islamic methods of finance by greatest number of times among previous motivated factors. Noticeably, this says that growth in demand for funds factor is a function of the future probability of the use of Islamic methods of finance by Libyan banks.

### **7.3 Research Contributions**

The research is developed, designed and implemented to achieve several contributions to the literature. These academic and theoretical contributions are discussed and followed by implications for practice and policy. While there is widespread empirical support for the Theory of Reasoned Action TRA (Ajzen and Fishben 1980) through many studies in banking and finance discipline including Yu and Wu (2007), Ravi, Carr and Sagar (2006), Shih and Fang (2006), Xu and Paulins (2005), Lee and Littrell (2005), investigations focusing on the use of this theory regard to examining the attitudes towards Islamic methods of finance appear very limited. This study extends previous research investigations through the use of external variables (level of awareness and demographic profiles) into the modified proposed theoretical frame work adopted from the original theoretical framework of the Theory of Reasoned Action TRA (Ajzen and Fishben 1980). Remarkably, the two external variables indicate a direct

effect on Libyan consumers, business firms and banks' attitudes towards Islamic methods of finance. The modified proposed theoretical model provides a sound explanation of the data in Libyan consumers' context, and formed good foundations for their attitudes' aspects.

This thesis focuses on understanding factors that determine potential use of Islamic methods of finance by retail consumers, business firms and banks. While empirical research investigating retail consumers' attitudes towards Islamic methods of finance is growing, prior research based on the attitudinal, investigation in business firms and banks context is limited (Jalaluddin (1999a). This study contributes in extending the literature of attitudes towards Islamic methods of finance, specifically in business firms and banks contexts. It extends the range of beliefs variables and attitudes-intention variables simultaneously investigated as predictors in a new context, the Libyan consumers and banks. In addition, while prior research mostly focused on users and non-users of Islamic banking, this research contributes through providing a deeper understanding of consumers' awareness towards Islamic methods of finance. In particular, a knowledge of retail consumers, business firms and banks is studied in Libya which never ever been investigated in the past comprehensively regarding to Islamic methods of finance. Finally, this study has contributed empirically to indicating that Libyan retail consumers, business firms and banks are suitable market in relation to the use of Islamic methods of finance.

The contribution of the study findings is not only limited to the literature. But also have an important role in informing financial industry practice and policy formation by government in Libya. According to religious factors, this study's findings indicate that the majority of retail consumers and business firms are potential users of Islamic methods of finance. While only 14.1% of the retail consumers and only 27.7% of the business firms are not potential users, establishing Islamic banks in Libya to offer Islamic methods of finance as same as other Muslim countries will provide these consumers with specific financial methods to comply with *Sharia*. In addition, since the potential use of Islamic methods of finance is indicated at high level, these Islamic banks will certainly contribute to the Libyan economic development.

According to the results, even though most of Libyan banks (66.4%) are potential users of Islamic methods of finance and 33.6% of them are not potential users, especially if most of these not potential users are general headquarter of banks, a lot of work should be done by these financial institutions. In particular, conventional banks to effectively

obtain benefits of Islamic methods of finance, they need to address and enhance discussion among all levels of their management with regard to applying these Islamic methods of finance. This claim arises due to the fact that Libya is now seeking to turn itself into a Market Free country to encourage investments, especially foreign investment. This means opening the door for Islamic banks worked worldwide especially that are in Arabic countries to come for establishing new branches in Libya.

While most of past studies and this study indicate that most of respondents either consumers or managers of banks have knowledge about the existence of Islamic banking and aware of some Islamic methods of finance, most of these studies confirm that the majority if not all are unaware with regard to specific methods of finance such as *Mudarabah*, *Morabahah*, and *Istisna*. This requires educational programmes to assist improving the knowledge and skills related to these methods of finance.

Finally, in the Libyan context, financial literacy and productive methods of finance are important policy areas authorized by the Libyan government. Findings of this research can inform and assist the central bank of Libya in the development of the policy document for applying Islamic methods of finance in formal basis. Critical issues to be addressed in the policy document relate to establishing Islamic banks and to ensuring conventional banks are involved to open specific windows offering Islamic methods of finance as well as focusing on training programmes to promote all of those who are interested to apply Islamic methods of finance.

#### **7.4 Research Limitations**

Several limitations of the research study are discussed in this section. In particular, the following limitations need to be considered when interpreting and applying this study's findings. While this study can inform and assist the Libyan government in the development of the policy document for applying Islamic methods of finance, the study's results are limited to Libya where no Islamic finance has been formally practised. The findings of this research is limited to retail consumers, business firms and banks, thus the generalizations of the results for analysis of other firms and institutions must be made with caution. Another limitation on the study's results for these three groups is that the survey was conducted in the four largest northern cities of Libya Tripoli, Benghazi, Misratah and Al Murgub, but the study does not address the consumers in the more rural areas in southern Libya. Although the motivating factors are tested for validity and reliability and judged to be valid and reliable, further development is warranted due to the possibility that not all motivating factors are

addressed. An understanding of how perceptions, attitudes and behaviour towards Islamic methods of finance change over time would be a preferred approach to data collection. However due to time and cost constraints a longitudinal study was not feasible.

In terms of sampling, for retail consumers, the relatively large sample size (N=385) from the biggest four cities in Libya Tripoli, Benghazi, Misratah and Al Murgub that together account for more than half of the Libyan population and with 100% rate of response, the results for Libyan retail consumers may be generalized with caution. This caution is due to the sampling method using private numbers in the telephone directory to contact retail consumers which may not be a representative sample. For business firms, only 296 firms completed the questionnaire, the response rate (76.9%) is relatively small where those who did not respond to the survey may hold different attitudes towards Islamic methods of finance, the survey results may not be representative of all Libyan firms. The response rate for Libyan banks (63.8%) is relatively small as well. Accordingly, the findings of this study are limited to those Libyan banks included in this study's sample and related to their banks' attitudes towards Islamic methods of finance. Hence, no generalizations are made to other financial institutions in Libya.

## **7.5 Areas for Further Investigations**

According to the descriptive analysis for the Libyan financial system as a developing system which has been under several transformations during the last decades provided in the second chapter and Libyan finance sector has not received much attention in the past literature, some empirical studies are needed to measure the efficiency and productivity of Libyan financial institutions, especially with the wish of Libyan government to move towards market economy. In addition, there are still many issues to be investigated regarding the Libyan banking institutions such as the performance of these institutions that could be affected by several transformations during past years.

Regarding Islamic methods of finance, a number of directions for further research are indicated. First, while Islamic methods of finance have been practised in many countries, the literature indicate that there is a poor understanding regarding to specific Islamic methods of finance such as *Mudarabah*, *Morabahah*, and *Istisna*. Therefore, research is required to explore reasons behind this lack of awareness in these methods of finance. Second, little is still known on how Muslims and non-Muslims are affected by religious and economic factors in their financial decision-making. For example,

business firms attitudes towards Islamic methods of finance in many Muslim and non-Muslim countries are in need of investigations.

Third, most existing literature on attitudes, perceptions and awareness of Islamic methods of finance have been done in a particular national context. It would be interesting to compare consumers' attitudes, perceptions and awareness of Islamic methods of finance in international context. In other words, a comparative research is needed to compare these aspects in a country with a completely Islamic banking system, to a country with a dual-banking system and another country which at an early stage of Islamic banking.

Finally, one reason for the growth of Islamic finance worldwide has been the willingness of national governments with a sectarian-orientation to support its establishment. It is not known what particular role these governments have played in attempting to modify the perceptions, attitudes and knowledge of Islamic banking alongside any direct or indirect support or encouragement to the institutions themselves. Frequent reference to a lack of understanding of Islamic finance methods, particularly at the commercial level, suggests that this should be examined more carefully.

## **7.6 Concluding Remarks**

This research study is commenced with the use of a modified theoretical model that incorporated two external variables (Awareness of Islamic methods of finance and Demographic and socioeconomic profiles) into the original theoretical framework of the Theory of Reasoned Action TRA (Ajzen and Fishben 1980). The model theoretically provided the conceptual foundation to investigate retail consumer, business firms and banks beliefs, attitudes and potential use of Islamic methods of finance in Libyan context. The empirical findings based on research framework indicate that most of retail consumers, business firms and banks are potential users of Islamic methods of finance. Noticeably, religious factors play the major role in determining the likelihood of applying Islamic methods of finance by retail consumers and business firms. However, growth in demand for funds is a significant factor influenced the probability of applying Islamic methods of finance by Libyan banks. Over all the findings extend our understanding of retail consumers, business firms and banks' awareness and attitudes towards Islamic methods of finance, provide remarkable implications for practice and policy, and finally, open some directions for further research.

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## APPENDICES

### Appendix A. Ethical Clearance

#### INITIAL APPLICATION APPROVAL

In reply please quote: HE07/332

Further Enquiries Phone: 4221 4457

19 November 2007

Mr Alsadek Gait  
1/4 Harkness Ave  
Keiraville  
NSW 2500

Dear Mr Gait,

Thank you for your responses dated 14 and 16 November 2007 to the HREC review of the application detailed below. I am pleased to advise that the application has been approved.

Ethics Number:	HE07/332
Project Title:	Libyan Attitudes towards Islamic methods of finance: An Empirical Analysis of Individual and Firms
Researchers:	Mr Alsadek Gait
Approval Date:	19 November 2007
Expiry Date:	18 November 2008

The University of Wollongong/SESI AHS Humanities, Social Science and Behavioural HREC is constituted and functions in accordance with the NHMRC *National Statement on the Ethical Conduct in Human Research*. The HREC has reviewed the research proposal for compliance with the *National Statement* and approval of this project is conditional upon your continuing compliance with this document. As evidence of continuing compliance, the Human Research Ethics Committee requires that researchers immediately report:

- Proposed changes to the protocol including changes to investigators involved.
- Serious or unexpected adverse effects on participants.
- Unforeseen events that might affect continued ethical acceptability of the project.

You are also required to complete monitoring reports annually and at the end of your project. These reports are sent out approximately 6 weeks prior to date your ethics approval expires. The reports must be completed, Signed by the appropriate Head of School, and returned to the research Services Office prior to the expiry date.

Yours Sincerely  
A/Professor Garry Hoban  
**Chairperson**  
Human Research Ethics Committee

## **Appendix B. Libyan Retail Consumers' Questionnaire in English**

### **LIBYAN CONSUMER SURVEY USING PHONE INTERVIEW**

#### **Libyan consumers' attitudes towards Islamic methods of finance**

#### **December 2007/January-February 2008**

Good morning, my name is ..... I would like to speak to a person who is the householder, please.... I'm calling for some information to help a Libyan doctoral study which is conducted in University of Wollongong by Alsadek Gait who is acting as delegate for the Libyan government to undertake research about Libyan customers' attitudes towards Islamic methods of finance and the possibility of applying these new methods of finance in Libya in accordance with Islamic *Sharia* (Islamic law). Therefore Can I ask you some questions regarding this topic for **10 minuets** please?

**ARRANGE CALL BACK TIME IF NECESSARY. RE-INTRODUCE IF NECESSARY.**

**First of all, please make sure that we select your phone number randomly from the Telephone Directory and I hope that you have right to feel free to reject this interview completely or don't provide answers for some questions and you can discontinue this interview at any time you want.**

**Also, we assure you that your identity is not disclosed in this questionnaire and your cooperation is highly appreciated. The information you provide will be highly confidential and only be used in data processing for this research project.**

<b>RECORD GENDER</b>	
Male	1
Female	2

### **SECTION ONE: VIEWS REGARDING USE OF ISLAMIC METHODS OF FINANCE**

Q1. Do you know about the existence of Islamic banks that apply Islamic methods of finance world wide such as Dubai Islamic Bank?	Yes No	1 2
Q 2. Which of the following Islamic methods of finance do you have a clear knowledge at? <b>READ OUT. ROTATE LIST</b>		
<i>Mudarabah</i> (Capital trust when the lender share only profit and not loss) <i>Musharakah</i> (Full partnership in profits and losses) <i>Morabahah</i> (Mark-ups on sale) <i>Bai Muajjall</i> (Deferred payments) <i>Bai Salam</i> (Prepaid purchases) <i>Istisna</i> (Manufacturing contracts) <i>Ijarah</i> (Lease financing) <i>Quard Hassan</i> (Benevolent loans) Don't know any one of these		1 2 3 4 5 6 7 8 9
Q3. Islamic methods of finance can also be practiced between individuals, which of them you have been practised yourself? <b>READ OUT. ROTATE LIST</b>	<i>Mudarabah</i> <i>Musharakah</i>	1 2

	<i>Morabahah</i>	3	<i>Bai Muajjall</i>	4	<i>Bai Salam</i>	5	<i>Istisna</i>	6	<i>Ijarah</i>	7	<i>Quard Hassan</i>	8	Not one of these	9
Q4. If Islamic banks open up in Libya to apply Islamic methods of finance, which of the following reasons might motivate you to use their Islamic methods of finance? As I read each one I would like you to tell me the importance of the reason's degree for you from 1 to 7 where 1 is not important at all and 7 is extremely important.														
<b>Reasons</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>							
1. An Islamic bank's methods of finance are interest-free	1	2	3	4	5	6	7							
2. An Islamic bank provides Islamic methods of finance in accordance with Islamic <i>Sharia</i> .	1	2	3	4	5	6	7							
3. Deposits with Islamic bank would realise a higher and variable rate of return.	1	2	3	4	5	6	7							
4. Religious motivation for depositing with Islamic bank.	1	2	3	4	5	6	7							
5. An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	1	2	3	4	5	6	7							
6. Religious motivation for borrowing from Islamic bank.	1	2	3	4	5	6	7							
7. An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	1	2	3	4	5	6	7							
8. An Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	1	2	3	4	5	6	7							
9. Profit/loss sharing method allows you to invest or borrow on a fair basis.	1	2	3	4	5	6	7							
10. An Islamic bank may help in collecting and distribution of <i>Zakah</i> .	1	2	3	4	5	6	7							
11. An Islamic bank aims to serve Muslim communities.	1	2	3	4	5	6	7							
12. An Islamic bank may contribute to the society's development.	1	2	3	4	5	6	7							
13. An Islamic bank provides lease financing ( <i>Ijarah</i> ).	1	2	3	4	5	6	7							
14. An Islamic bank provides trade financing methods such as <i>Morabahah</i> .	1	2	3	4	5	6	7							
15. An Islamic bank provides industrial financing ( <i>Istisna</i> ).	1	2	3	4	5	6	7							
16. An Islamic bank may help poor people with benevolent loans ( <i>Quard Hassan</i> )	1	2	3	4	5	6	7							
Q 5. If Islamic banks open up in Libya, would you like potentially to use their Islamic methods of finance?														
	Yes	1												
	No	2												

## SECTION TWO: DEMOGRAPHIC INFORMATION

<b>Q6. Which age group do you fall into? READ OUT.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">Less than 25 years</td><td style="width: 10%;">1</td></tr> <tr><td>(25 – 35) years</td><td>2</td></tr> <tr><td>(36 – 45) years</td><td>3</td></tr> <tr><td>(46 – 55) years</td><td>4</td></tr> <tr><td>More than 55 years</td><td>5</td></tr> <tr><td>Refused</td><td>6</td></tr> </table>	Less than 25 years	1	(25 – 35) years	2	(36 – 45) years	3	(46 – 55) years	4	More than 55 years	5	Refused	6		
Less than 25 years	1														
(25 – 35) years	2														
(36 – 45) years	3														
(46 – 55) years	4														
More than 55 years	5														
Refused	6														
<b>Q7. What is the highest educational qualification you have achieved? READ OUT.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">Nil education</td><td style="width: 10%;">1</td></tr> <tr><td>Primary school</td><td>2</td></tr> <tr><td>High school</td><td>3</td></tr> <tr><td>Secondary school</td><td>4</td></tr> <tr><td>Diploma</td><td>5</td></tr> <tr><td>University</td><td>6</td></tr> <tr><td>Postgraduate</td><td>7</td></tr> </table>	Nil education	1	Primary school	2	High school	3	Secondary school	4	Diploma	5	University	6	Postgraduate	7
Nil education	1														
Primary school	2														
High school	3														
Secondary school	4														
Diploma	5														
University	6														
Postgraduate	7														
<b>Q8. Which of the following categories do you best fit in? READ OUT.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">Public servant</td><td style="width: 10%;">1</td></tr> <tr><td>Employee in a private organization</td><td>2</td></tr> <tr><td>Self employed</td><td>3</td></tr> <tr><td>Home duties</td><td>4</td></tr> <tr><td>Retired</td><td>5</td></tr> <tr><td>Student</td><td>6</td></tr> </table>	Public servant	1	Employee in a private organization	2	Self employed	3	Home duties	4	Retired	5	Student	6		
Public servant	1														
Employee in a private organization	2														
Self employed	3														
Home duties	4														
Retired	5														
Student	6														
<b>Q9. Which of the following best matches your monthly income? READ OUT.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">Less than LYD200</td><td style="width: 10%;">1</td></tr> <tr><td>(LYD200 – LYD300)</td><td>2</td></tr> <tr><td>(LYD301- LYD400)</td><td>3</td></tr> <tr><td>More than LYD400</td><td>4</td></tr> <tr><td>Refused</td><td>5</td></tr> </table>	Less than LYD200	1	(LYD200 – LYD300)	2	(LYD301- LYD400)	3	More than LYD400	4	Refused	5				
Less than LYD200	1														
(LYD200 – LYD300)	2														
(LYD301- LYD400)	3														
More than LYD400	4														
Refused	5														
<b>Q10. Are you ...? READ OUT.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">Libyan</td><td style="width: 10%;">1</td></tr> <tr><td>Non-Libyan</td><td>2</td></tr> </table>	Libyan	1	Non-Libyan	2										
Libyan	1														
Non-Libyan	2														

**Thank you so much for your help.**

### **Appendix B. Libyan Retail Consumers' Questionnaire in Arabic**

إستبيان خاص بالأفراد الليبيين عن طريق الهاتف  
 وجهات نظر الأفراد الليبيين إتجاه الطرق المالية الإسلامية  
 ديسمبر 2007/يناير - فبراير 2008

مساء الخير... إسمى ..... من فضلك هل من الممكن أن أتحدث إلى رب الأسرة . هذا الإتصال من أجل الحصول على بعض المعلومات لمساعدة أطروحة دكتوراه تعد بجامعة ولوتفونق من قبل الصادق غيث الذي تم تحويله من قبل ادارة البعثات الدراسية للقيام ببحث عن وجهات نظر الأفراد الليبيين إتجاه الطرق المالية الإسلامية وإمكانية استخدام هذه الطرق المالية الجديدة في ليبيا طبقاً للشريعة الإسلامية. لهذا هل من الممكن أن أسألك بعض الأسئلة بخصوص هذا الموضوع لمدة 10 دقائق من فضلك.

رتب إعادة الإتصال أو أعد التعريف بنفسك إذا لزم الأمر.  
 في البداية من فضلك تأكيد أننا إنقنيا رقم هاتفك عشوائياً من دليل الهاتف وأتمنى أن تتأكد أنه من حقك أن ترفض هذه المقابلة بحرية أو ترفض الإجابة على بعض الأسئلة أو التوقف عن إكمال هذه المقابلة عند أي وقت تشاء. ونحن

نضمن لك أن التعريف بك في هذا الإستبيان غير مطلوب ومشاركتك على قدر كبير من التقدير. أيضاً المعلومات التي ستقدمها ستكون على قدر كبير من الثقة وستستخدم فقط كمعلومات بحثية لهذه الدراسة.

سجل الجنس	
1	ذكر
2	أنثى

### الجزء الأول: وجهات النظر بخصوص استخدام الطرق المالية الإسلامية.

	س.1. هل تعلم بوجود المصارف الإسلامية التي تقدم الطرق المالية الإسلامية في العديد من دول العالم مثل مصرف دبي الإسلامي؟						
1	نعم						
2	لا						
	س.2. في أي الطرق المالية التالية أنت على معرفة تامة؟ إقرأ القائمة التالية:						
1	المضاربة (الثقة في رأس المال عندما المقترض يشارك في الأرباح فقط وليس الخسائر)						
2	المشاركة (المشاركة في الارباح والخسائر)						
3	المرابحة (الربح الاضافي على البيوع)						
4	البيع المؤجل (دفع قيمة المبيعات مؤجلاً)						
5	بيع السلام (دفع قيمة المشتريات مقدماً)						
6	إكتينية (عقود التصنيع)						
7	الأجرة (التمويل التأجيرى)						
8	القرض الحسن (القروض بدون فوائد)						
9	لا أعرف أي واحدة منها						
	س.3. الطرق المالية الإسلامية ممكن أن تطبق بين الأفراد، أي منها أنت استخدمت في السابق؟ أقرأ القائمة التالية.						
1	المضاربة						
2	المشاركة						
3	المرابحة						
4	البيع المؤجل						
5	بيع السلام						
6	إكتينية						
7	الأجرة						
8	القرض الحسن						
9	لم أستخدم أي منها						
	س.4. إذا المصارف الإسلامية تأسست في ليبيا لتقديم الطرق المالية الإسلامية، أي الأسباب التالية من المحتمل أن يكون لك دافع لإستخدام الطرق المالية الإسلامية؟ عندما أقرأ كل واحد من هذه الأسباب أريدك أن تخبرنى عن درجة أهمية هذا السبب حسب رأيك من 1 إلى 7 علماً بأن 1 تمثل مطلقاً غير مهم و 7 تمثل مهم جداً.						
	<b>الأسباب</b>						
1	6	5	4	3	2	1	1. الطرق المالية للمصارف الإسلامية تكون بدون فوائد.
7	6	5	4	3	2	1	2. المصارف الإسلامية تقدم طرق مالية طبقاً للشريعة الإسلامية.
7	6	5	4	3	2	1	3. الودائع مع المصارف الإسلامية ممكن أن تجنى معدل أعلى ومتغير من الدخل.
7	6	5	4	3	2	1	4. الورازع الديني يمثل دافع للإيداع في المصرف الإسلامي.
7	6	5	4	3	2	1	5. تكلفة الإقراض في المصرف الإسلامي ليست تكلفة ثابتة وإنما تعتمد على العائد من المشروع.
7	6	5	4	3	2	1	6. الورازع الديني يمثل دافع للإقراض من المصرف الإسلامي.
7	6	5	4	3	2	1	7. المصرف الإسلامي ممكن أن يستمر معك طبقاً لطريقة المشاركة في الربح فقط (المضاربة).
7	6	5	4	3	2	1	8. المصرف الإسلامي يفرض طبقاً لطريقة المشاركة في الربح والخسارة (المشاركة).

7	6	5	4	3	2	1	9. طريقة المشاركة في الربح والخسارة تتيح لك الاستثمار او الاقتراض بشكل عادل.
7	6	5	4	3	2	1	10. المصرف الإسلامي يساعد في تجميع وتوزيع الزكاة.
7	6	5	4	3	2	1	11. المصرف الإسلامي يهدف إلى خدمة المسلمين.
7	6	5	4	3	2	1	12. المصرف الإسلامي قد يساهم في تطور المجتمع.
7	6	5	4	3	2	1	13. المصرف الإسلامي يقدم التمويل التأجيرى (أجرة).
7	6	5	4	3	2	1	14. المصرف الإسلامي يقدم طرق التمويل التجارى مثل المراقبة.
7	6	5	4	3	2	1	15. المصرف الإسلامي يمكن أن يقدم التمويل الصناعي (إكتينية).
7	6	5	4	3	2	1	16. المصرف الإسلامي يمكن أن يساعد الفقراء بتقديم قروض حسنة.
س.5. إذا المصارف الإسلامية تأسست في ليبيا هل من الممكن أن تستخدم الطرق المالية الإسلامية التي تقدمها؟		نعم	لا				

#### الجزء الثاني: المعلومات الشخصية/

1	أقل من 25 سنة	س.6. في أي المجموعات التالية من العمر تكون أنت؟ أقرأ القائمة التالية:
2	سنة (35 – 25)	
3	سنة (45 – 36)	
4	سنة (55 – 46)	
5	أكثر من 55 سنة	
6	رافض	
1	غير متعلم	س.7. ما هو أعلى مستوى دراسي تحصلت عليه؟ أقرأ القائمة التالية:
2	تعليم إبتدائي	
3	تعليم إعدادي	
4	تعليم ثانوي	
5	دبلوم متوسط	
6	مؤهل جامعي	
7	دراسات عليا	
1	موظف حكومي	س.8. في أي الوظائف التالية تكون أنت؟ أقرأ القائمة التالية:
2	موظف بالقطاع الخاص	
3	أعمال حرفة	
4	متقاعد	
5	ربة بيت	
6	طالب	
1	أقل من 200 دينار	س.9. أي المبالغ التالية يتطابق مع دخلك الشهري؟ أقرأ القائمة التالية:
2	200 – 300 دينار	
3	300 – 400 دينار	
4	أكثر من 400 دينار	
1	ليبي	س.10. هل أنت .....؟
2	غير ليبي	

شكراً جزيلاً على المساعدة

## **Appendix C. Libyan Business Firms' Questionnaire in English**

### **LIBYAN BUSINESS FIRM SURVEY USING PHONE INTERVIEW**

#### **Libyan business firms' attitudes towards Islamic methods of finance**

#### **December 2007/January-February 2008**

Good morning / evening, my name is ..... I would like to speak to a person who is the director in your company, please.... I'm calling for some information to help a Libyan doctoral study which is conducted in University of Wollongong by Alsadek Gait who is acting as delegate for the Libyan government to undertake research about Libyan firms' attitudes towards Islamic methods of finance and the possibility of applying these new methods of finance in Libya in accordance with Islamic *Sharia* (Islamic law). Therefore Can I ask you some questions regarding this topic for **10 minuets** please?

**ARRANGE CALL BACK TIME IF NECESSARY. RE-INTRODUCE IF NECESSARY.**

**First of all, please make sure that we select your phone number randomly from the list of firms in your city's chamber of commerce and industry and I hope that you have right to feel free to reject this interview completely or don't provide answers for some questions and you can discontinue this interview at any time you want.**

**Also, we assure you that your identity is not disclosed in this questionnaire and your cooperation is highly appreciated. The information you provide will be highly confidential and only be used in data processing for this research project.**

### **SECTION TWO: VIEWS REGARDING THE USE OF ISLAMIC METHODS OF FINANCE**

Q1. Do you know about the existence of Islamic banks that apply Islamic methods of finance world wide such as Dubai Islamic Bank?	Yes	1
	No	2
Q 2. Which of the following Islamic methods of finance do you have a clear knowledge at? <b>READ OUT. ROTATE LIST</b>		
<i>Mudarabah</i> (Capital trust when the lender share only profit and not loss)	1	
<i>Musharakah</i> (Full partnership in profits and losses)	2	
<i>Morabahah</i> (Mark-ups on sale)	3	
<i>Bai Muajjall</i> (Deferred payments)	4	
<i>Bai Salam</i> (Prepaid purchases)	5	
<i>Istisna</i> (Manufacturing contracts)	6	
<i>Ijarah</i> (Lease financing)	7	
<i>Quard Hassan</i> (Benevolent loans)	8	
Don't know any one of these	9	
Q 3. Islamic methods of finance can also be practised business firms, which of them have been practised by your firm? <b>READ OUT. ROTATE LIST.</b>		
<i>Mudarabah</i>	1	
<i>Musharakah</i>	2	
<i>Morabahah</i>	3	
<i>Bai Muajjall</i>	4	
<i>Bai Salam</i>	5	
<i>Istisna</i>	6	
<i>Ijarah</i>	7	

<i>Quard Hassan</i> Don't know any one of these	8 9
Q 4. If Islamic banks open up in Libya to apply Islamic methods of finance, which of the following reasons might motivate you to use their Islamic methods of finance? As I read each one I would like you to tell me the importance of the reason's degree for you from 1 to 7 where 1 is not important at all and 7 is extremely important.	
<b>Reasons</b>	<b>1</b>
1. An Islamic bank's methods of finance are interest-free.	1    2    3    4    5    6    7
2. An Islamic bank provides Islamic methods of finance in accordance with Islamic <i>Sharia</i> .	1    2    3    4    5    6    7
3. Deposits with Islamic bank would realise a higher and variable rate of return.	1    2    3    4    5    6    7
4. Religious motivation for depositing with Islamic bank.	1    2    3    4    5    6    7
5. An Islamic bank's cost of borrowing is not a fixed cost item but depends on the outcome of the business.	1    2    3    4    5    6    7
6. Religious motivation for borrowing from Islamic bank.	1    2    3    4    5    6    7
7. An Islamic bank may invest with you according to profit sharing method only ( <i>Mudarabah</i> ).	1    2    3    4    5    6    7
8. An Islamic bank would consider repayment of debt according to business conditions.	1    2    3    4    5    6    7
9. Islamic bank lends money according to profit/loss sharing method ( <i>Musharakah</i> ).	1    2    3    4    5    6    7
10. An Islamic bank would share the risk of business with you.	1    2    3    4    5    6    7
11. Profit/loss sharing method allows you to invest or borrow on a fair basis.	1    2    3    4    5    6    7
12. An Islamic bank may support you in your business management.	1    2    3    4    5    6    7
13. An Islamic bank would encourage business innovation.	1    2    3    4    5    6    7
14. An Islamic bank may encourage business expansion.	1    2    3    4    5    6    7
15. An Islamic bank would help you to improve business efficiency.	1    2    3    4    5    6    7
16. An Islamic bank provides lease financing ( <i>Ijarah</i> ).	1    2    3    4    5    6    7
17. An Islamic bank provides trade financing methods such as ( <i>Morabahah</i> ).	1    2    3    4    5    6    7
18. An Islamic bank provides industrial financing ( <i>Istisna</i> ).	1    2    3    4    5    6    7
Q 4. If Islamic banks open up in Libya, would you like potentially to use their Islamic methods of finance?	
Yes	1
No	2

## SECTION TWO: GENERAL INFORMATION ON BUSINESS

Q5. What is the category of your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Trading</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>Manufacturing</td><td style="text-align: right;">2</td></tr> <tr><td>Importing and Exporting</td><td style="text-align: right;">3</td></tr> <tr><td>Construction</td><td style="text-align: right;">4</td></tr> <tr><td>Transport and storage</td><td style="text-align: right;">5</td></tr> <tr><td>Services</td><td style="text-align: right;">6</td></tr> <tr><td>Others (please specify)</td><td style="text-align: right;">7 (-----)</td></tr> </table>	Trading	1	Manufacturing	2	Importing and Exporting	3	Construction	4	Transport and storage	5	Services	6	Others (please specify)	7 (-----)
Trading	1														
Manufacturing	2														
Importing and Exporting	3														
Construction	4														
Transport and storage	5														
Services	6														
Others (please specify)	7 (-----)														
Q6. How many years have you been in this business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Less than 1 year</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>From 2 to 3 years</td><td style="text-align: right;">2</td></tr> <tr><td>From 4 to 5 years</td><td style="text-align: right;">3</td></tr> <tr><td>More than 5 years</td><td style="text-align: right;">4</td></tr> </table>	Less than 1 year	1	From 2 to 3 years	2	From 4 to 5 years	3	More than 5 years	4						
Less than 1 year	1														
From 2 to 3 years	2														
From 4 to 5 years	3														
More than 5 years	4														
Q7. What is the amount of total assets of your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Less than LYD50,000</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>LYD50,000 to LYD100,000</td><td style="text-align: right;">2</td></tr> <tr><td>LYD101,000 to LYD300,000</td><td style="text-align: right;">3</td></tr> <tr><td>LYD301,000 to LYD500,000</td><td style="text-align: right;">4</td></tr> <tr><td>More than LYD500,000</td><td style="text-align: right;">5</td></tr> </table>	Less than LYD50,000	1	LYD50,000 to LYD100,000	2	LYD101,000 to LYD300,000	3	LYD301,000 to LYD500,000	4	More than LYD500,000	5				
Less than LYD50,000	1														
LYD50,000 to LYD100,000	2														
LYD101,000 to LYD300,000	3														
LYD301,000 to LYD500,000	4														
More than LYD500,000	5														
Q8. What is the amount of total liabilities of your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Less than LYD50,000</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>LYD50,000 to LYD100,000</td><td style="text-align: right;">2</td></tr> <tr><td>LYD101,000 to LYD200,000</td><td style="text-align: right;">3</td></tr> <tr><td>LYD201,000 to LYD300,000</td><td style="text-align: right;">4</td></tr> <tr><td>More than LYD300,000</td><td style="text-align: right;">5</td></tr> </table>	Less than LYD50,000	1	LYD50,000 to LYD100,000	2	LYD101,000 to LYD200,000	3	LYD201,000 to LYD300,000	4	More than LYD300,000	5				
Less than LYD50,000	1														
LYD50,000 to LYD100,000	2														
LYD101,000 to LYD200,000	3														
LYD201,000 to LYD300,000	4														
More than LYD300,000	5														
Q9. What is the amount of share capital of your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Less than LYD50,000</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>LYD50,000 to LYD100,000</td><td style="text-align: right;">2</td></tr> <tr><td>LYD101,000 to LYD200,000</td><td style="text-align: right;">3</td></tr> <tr><td>LYD201,000 to LYD300,000</td><td style="text-align: right;">4</td></tr> <tr><td>More than LYD300,000</td><td style="text-align: right;">5</td></tr> </table>	Less than LYD50,000	1	LYD50,000 to LYD100,000	2	LYD101,000 to LYD200,000	3	LYD201,000 to LYD300,000	4	More than LYD300,000	5				
Less than LYD50,000	1														
LYD50,000 to LYD100,000	2														
LYD101,000 to LYD200,000	3														
LYD201,000 to LYD300,000	4														
More than LYD300,000	5														
Q10. How many people are currently employed in your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Less than 5 people</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>5 to 10 people</td><td style="text-align: right;">2</td></tr> <tr><td>11 to 20 people</td><td style="text-align: right;">3</td></tr> <tr><td>More than 20 people</td><td style="text-align: right;">4</td></tr> </table>	Less than 5 people	1	5 to 10 people	2	11 to 20 people	3	More than 20 people	4						
Less than 5 people	1														
5 to 10 people	2														
11 to 20 people	3														
More than 20 people	4														
Q11. Which of the following is your business? <b>READ OUT. ROTATE LIST.</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 30%;">Family Business</td><td style="width: 10%; text-align: right;">1</td></tr> <tr><td>Joint Venture</td><td style="text-align: right;">2</td></tr> <tr><td>Partnership</td><td style="text-align: right;">3</td></tr> <tr><td>company</td><td style="text-align: right;">4</td></tr> </table>	Family Business	1	Joint Venture	2	Partnership	3	company	4						
Family Business	1														
Joint Venture	2														
Partnership	3														
company	4														

Q12. How many partners own this business? <b>READ OUT. ROTATE LIST.</b>		
	Less than 10	1
	10 to 20	2
	21 to 30	3
	More than 30(please specify)	4 (-----)

Thank you so much for your help.

### Appendix C. Libyan Business Firms' Questionnaire in Arabic

#### استبيان خاص بمؤسسات الأعمال الليبية عن طريق الهاتف وجهات نظر مؤسسات الأعمال الليبية إتجاه الطرق المالية الإسلامية ديسمبر 2007/يناير - فبراير 2008

صباح الخير... إسمى ..... من فضلك هل من الممكن أن أتحدث إلى شخص يكون هو المدير بموسيستكم . هذا الإتصال من أجل الحصول على بعض المعلومات لمساعدة أطروحة دكتوراه تعد بجامعة ولونفونق من قبل الصادق غيث الذى تم تخييله من قبل ادارة البعثات الدراسية للقيام ببحث عن وجهات نظر الأفراد الليبيين إتجاه الطرق المالية الإسلامية وامكانية استخدام هذه الطرق المالية الجديدة في ليبيا طبقاً للشريعة الإسلامية. لهذا هل من الممكن أن أسألك بعض الأسئلة بخصوص هذا الموضوع لمدة 10 دقائق من فضلك .  
رتب إعادة الإتصال أو أعد التعريف بنفسك إذا لزم الأمر.

في البداية من فضلك تأكد أننا إنتقينا رقم هاتفك عشوائياً من قائمة مؤسسات الأعمال المدرجة بغرفة التجارة والصناعة بمدينتكم وأتمنى أن تتأكد أنه من حقك أن ترفض هذه المقابلة بحرية أو ترفض الإجابة على بعض الأسئلة أو التوقف عن إكمال هذه المقابلة عند أى وقت تشاء . ونحن نضمن لك أن التعريف بك في هذا الاستبيان غير مطلوب ومشاركتك على قدر كبير من التقدير . أيضاً المعلومات التي ستقدمها ستكون على قدر كبير من الثقة وستستخدم فقط كمعلومات بحثية لهذه الدراسة .

#### الجزء الأول: وجهات النظر بخصوص استخدام الطرق المالية الإسلامية .

	س.1. هل تعلم بوجود المصادر الإسلامية التي تقدم الطرق المالية الإسلامية في العديد من دول العالم مثل مصرف دبي الإسلامي؟	
1	نعم	
2	لا	
س.2. في أي الطرق المالية التالية أنت على معرفة تامة؟ إقرأ القائمة التالية:		
1	المضاربة (التقة في رأس المال عندما المقرض يشارك في الأرباح فقط وليس الخسائر)	
2	المشاركة (المشاركة في الارباح والخسائر)	
3	المراقبة (الربح الاضافي على البيوع)	
4	البيع المؤجل (دفع قيمة المبيعات مؤجل)	
5	بيع السلام (دفع قيمة المشتريات مقدماً)	
6	إكتيني (عقود التصنيع)	
7	الأجرة (التمويل التأجيرى)	
8	القرض الحسن (القروض الخيرية)	
9	لا أعرف أي واحدة منها	
س.3. الطرق المالية الإسلامية ممكن أن تطبق من قبل مؤسسات الاعمال، أي منهاً أنت استخدمتم في السابق؟ إقرأ القائمة التالية:		
1	المضاربة (التقة في رأس المال عندما المقرض يشارك في الأرباح فقط وليس الخسائر)	
2	المشاركة (المشاركة في الارباح والخسائر)	
3	المراقبة (الربح الاضافي على البيوع)	
4	البيع المؤجل (دفع قيمة المبيعات مؤجل)	
5	بيع السلام (دفع قيمة المشتريات مقدماً)	
6	إكتيني (عقود التصنيع)	
7	الأجرة (التمويل التأجيرى)	

8	القرض الحسن (القروض الخيرية)					
9	لم أستخدم أى واحدة منها					
	س.4. إذا المصارف الإسلامية تأسست في ليبيا لتقديم الطرق المالية الإسلامية، أى الأسباب التالية من المحتمل أن يكون لك دافع لاستخدام الطرق المالية الإسلامية؟ عندما أقرأ كل واحد من هذه الأسباب أريدهك أن تخبرني عن درجة أهمية هذا السبب حسب رأيك من 1 إلى 7 علماً بأن 1 تمثل غير مهم على الإطلاق و 7 تمثل مهم جداً.					
الأسباب						
7	6	5	4	3	2	1
1.	الطرق المالية للمصارف الإسلامية تكون بدون فوائد.					
2.	المصارف الإسلامية تقدم طرق مالية طبقاً للشريعة الإسلامية.					
3.	الودائع مع المصارف الإسلامية ممكن أن تجني معدل أعلى ومنغير من الدخل.					
4.	الوازع الديني يمثل دافع للإيداع في المصرف الإسلامي.					
5.	تكلفة الإقراض في المصرف الإسلامي ليست تكلفة ثابتة وإنما تعتمد على العائد من المشروع					
6.	الوازع الديني يمثل دافع للإقراض من المصرف الإسلامي.					
7.	المصرف الإسلامي ممكن أن يستثمر معك طبقاً لطريقة المشاركة في الربح فقط (المضاربة).					
8.	المصرف الإسلامي يمكن أن يقدر دفع الديون طبقاً لوضع المشروع.					
9.	المصرف الإسلامي يقرض طبقاً لطريقة المشاركة في الربح والخسارة (المشاركة).					
10.	المصرف الإسلامي يمكن أن يتحمل معك مخاطرة المشروع.					
11.	طريقة المشاركة في الربح والخسارة تتيح لك الاستثمار أو الاقتراض بشكل عادل.					
12.	المصرف الإسلامي يمكن أن يدعمك في إدارة المشروع.					
13.	المصرف الإسلامي قد يشجع على الإبداع في المشروع.					
14.	المصرف الإسلامي قد يشجع على التوسع في المشروع.					
15.	المصرف الإسلامي قد يساعدك على تحسين كفاءة المشروع.					
16.	المصرف الإسلامي يقدم التمويل التأجيرى (أجرة).					
17.	المصرف الإسلامي يقدم طرق التمويل التأجيرى مثل المراقبة.					
18.	المصرف الإسلامي يمكن أن يقدم التمويل الصناعي (إكتيني).					
	س.4. إذا المصارف الإسلامية تأسست في ليبيا هل من الممكن أن تستخدم الطرق المالية الإسلامية التي تقدمها؟					
1						
2						
نعم						
لا						

#### الجزء الثاني: المعلومات العامة عن المؤسسة /

س.5. ما هو تصنيف عمل مؤسستكم؟ أقرأ القائمة التالية:

1	تجاري
2	صناعي
3	تصدير وإستيراد
4	بناء وتشييد
5	نقل وتخزين
6	خدمات
7	أخرى (حدد)

	س.6. كم سنة عملت مؤسستكم في هذا المجال حتى الآن؟ أقرأ القائمة التالية: أقل من سنة 1 من 2 الى 3 سنوات 2 من 4 الى 5 سنوات 3 أكثر من 5 سنوات 4
	س.7. ما هو إجمالي الأصول لمؤسستكم تقريرياً؟ أقرأ القائمة التالية: أقل من 50000 دينار ليبي 1 من 50000 الى 100000 2 من 100000 الى 300000 3 من 300000 الى 500000 4 من 500000 الى 301000 5 أكثر من 500000
	س.8. ما هو إجمالي الالتزامات لمؤسستكم تقريرياً؟ أقرأ القائمة التالية: أقل من 50000 دينار ليبي 1 من 50000 الى 100000 2 من 100000 الى 200000 3 من 200000 الى 300000 4 من 300000 الى 301000 5 أكثر من 300000
	س.9. ما هو رأس مال مؤسستكم تقريرياً؟ أقرأ القائمة التالية: أقل من 50000 دينار ليبي 1 من 50000 الى 100000 2 من 100000 الى 200000 3 من 200000 الى 300000 4 من 300000 الى 301000 5 أكثر من 300000
	س.10. كم عدد العاملين حالياً بمؤسستكم؟ أقرأ القائمة التالية: أقل من 5 أفراد 1 من 5 الى 10 أفراد 2 من 11 الى 20 فرد 3 أكثر من 20 فرد 4
	س.11. أي من الأنواع التالية تكون مؤسستكم؟ أقرأ القائمة التالية: مشروع أسرة 1 شركة مساهمة 2 تشاركية 3 شركة 4
	س.12. كم شريك يملك هذه المؤسسة؟ أقرأ القائمة التالية: أقل من 10 1 من 11 الى 20 2 من 21 الى 30 3 أكثر من 30 (من فضلك حدد) 4

شكراً جزيلاً على المساعدة

## **Appendix D. Libyan Banks' Questionnaire in English**

### **LIBYAN BANK SURVEY USING PHONE INTERVIEW**

### **Libyan bank's attitudes towards Islamic methods of finance**

### **December 2007/January 2008**

Good morning, my name is ..... I would like to speak to a person who is (director general - director general of credit and investment - director general of marketing in headquarter or branch manager- branch acting manager - head of credit and investment department in branch) in your bank, please.... I'm calling for some information to help a Libyan doctoral study which is conducted in University of Wollongong by Alsadek Gait who is acting as delegate for the Libyan government to undertake research about Libyan banks' attitudes towards Islamic methods of finance and the possibility of applying these new methods of finance in Libya in accordance with Islamic *Sharia* (Islamic law). Therefore Can I ask you some questions regarding this topic for **10 minuets** please?

**ARRANGE CALL BACK TIME IF NECESSARY. RE-INTRODUCE IF NECESSARY.**

**First of all I hope that you have right to feel free to reject this interview completely or don't provide answers for some questions and you can discontinue this interview at any time you want. Also, we assure you that your identity is not disclosed in this questionnaire and your cooperation is highly appreciated. The information you provide will be highly confidential and only be used in data processing for this research project.**

#### **SECTION ONE: KNOWLEDGE AND AWARENESS REGARDING ISLAMIC METHODS OF FINANCE.**

Q1. Do you know about the existence of Islamic banks that apply Islamic methods of finance world wide such Dubai Islamic Bank?	Yes	1
	No	2
Q2. Which of the following Islamic methods of finance do you have a clear knowledge of? <b>READ OUT. ROTATE LIST</b>		
<i>Mudarabah</i> (Capital trust when the lender share only profit and not loss)	1	
<i>Musharakah</i> (Full partnership in profits and losses)	2	
<i>Morabahah</i> (Mark-ups on sale)	3	
<i>Bai Muajjall</i> (Deferred payments)	4	
<i>Bai Salam</i> (Prepaid purchases)	5	
<i>Istisna</i> (Manufacturing contracts)	6	
<i>Ijarah</i> (Lease financing)	7	
<i>Quard Hassan</i> (Benevolent loans)	8	
Don't know any one of these	9	
Q3. Islamic methods of finance can also be practised individually, which of them have been practised by yourself or your bank? <b>READ OUT. ROTATE LIST.</b>		
<i>Mudarabah</i>	1	
<i>Musharakah</i>	2	
<i>Morabahah</i>	3	
<i>Bai Muajjall</i>	4	
<i>Bai Salam</i>	5	
<i>Istisna</i>	6	

<i>Ijarah</i>	7
<i>Quard Hassan</i>	8
Don't know any one of these	9

## SECTION TWO: VIEWS REGARDING THE USE OF ISLAMIC METHODS OF FINANCE

Q4. If Islamic banks open up in Libya to apply Islamic methods of finance, which of the following reasons might motivate your institution to apply these Islamic methods of finance? As I read each one of the following reasons I would like you to tell me the importance of the reason's degree for you from 1 to 7 where 1 is not important at all and 7 is extremely important.

Reasons	1	2	3	4	5	6	7
1- Islamic methods of finance are interest-free.	1	2	3	4	5	6	7
2. Islamic methods of finance are in accordance with Islamic <i>Sharia</i> .	1	2	3	4	5	6	7
3. Applying Islamic methods of finance may increase deposits of bank.	1	2	3	4	5	6	7
4. Islamic methods of finance may expand the market for loans.	1	2	3	4	5	6	7
5. Islamic methods of finance allow bank to use unique financing methods such as lease financing.	1	2	3	4	5	6	7
6. Return to banks under Islamic methods of finance could be higher than under traditional methods of finance.	1	2	3	4	5	6	7
7. Islamic methods of finance may result in a more effective monitoring of loan financed.	1	2	3	4	5	6	7
8. Islamic methods of finance may encourage starting businesses with small equity to borrow funds.	1	2	3	4	5	6	7
9. Profit/loss sharing method may promote the relationship between bank and customers.	1	2	3	4	5	6	7
10. Profit/loss sharing method allows bank to share risk of investment with borrower.	1	2	3	4	5	6	7
11. Sharing the profits could help the borrower and reduce the risk of default.	1	2	3	4	5	6	7
12. Repayment of debt could be easily controlled under Islamic methods of finance.	1	2	3	4	5	6	7
13. Applying Islamic methods of finance would increase profit of the bank.	1	2	3	4	5	6	7
14. Applying Islamic methods of finance may contribute in Libyan economic development.	1	2	3	4	5	6	7
Q5. If Islamic banks open up in Libya, would your institution be prepared to apply their Islamic methods of finance?							
	Yes	1					
	No	2					

## SECTION THREE: GENEERAL INFORMATION ON BANKING ISTITUTION

Q6. Which of the following types of banks is your institution? <b>READ OUT. ROTATE LIST</b>	State bank Specialised bank Regional bank Private bank	1 2 3 4
Q7. Which of the following categories do your bank best fit in? <b>READ OUT.</b>	General headquarter Main branch Branch	1 2 3
Q8. How many years has your institution been working in banking transactions in Libya? <b>READ OUT. ROTATE LIST</b>	Less than 10 years 10 to 20 years More than 20 years	1 2 3

Thank you so much for your help.

#### Appendix D. Libyan Banks' Questionnaire in Arabic

### إستبيان خاص بالمصارف الليبية عن طريق الهاتف وجهات نظر المصارف الليبية إتجاه الطرق المالية الإسلامية ديسمبر 2007/يناير 2008

صباح الخير... إسمى ..... من فضلك هل من الممكن أن أتحدث إلى شخص يكون (المدير العام - مدير عام الإنتمان والاستثمار - مدير عام التسويق بالادارة العامة أو مدير الفرع - نائب مدير الفرع - رئيس قسم الإنتمان والاستثمار بالفرع) بمصرفكم . هذا الإتصال من أجل الحصول على بعض المعلومات لمساعدة أطروحة دكتوراه تعدد بجامعة ولو نقونق من قبل الصادق حيث تم تحويله من قبل ادارة البعثات الدراسية للقيام ببحث عن وجهات نظر المصارف الليبية إتجاه الطرق المالية الإسلامية وإمكانية استخدام هذه الطرق المالية الجديدة في ليبيا طبقاً للشريعة الإسلامية. لهذا هل من الممكن أن أسألك بعض الأسئلة بخصوص هذا الموضوع لمدة 10 دقائق من فضلك.

رتب إعادة الإتصال أو أعد التعريف بنفسك إذا لزم الأمر.

في البداية أنا أتمنى أن تتأكد أنه من حقك أن ترفض هذه المقابلة بحرية أو ترفض الإجابة على بعض الأسئلة أو التوقف عن إكمال هذه المقابلة عند أي وقت تشاء. ونحن نضمن لك أن التعريف بك في هذا الإستبيان غير مطلوب ومشاركتك على قدر كبير من التقدير. أيضاً المعلومات التي ستقدمها ستكون على قدر كبير من الثقة وستستخدم فقط كمعلومات بحثية لهذه الدراسة.

#### الجزء الأول: المعرفة والوعي إتجاه الطرق المالية الإسلامية.

1	نعم	س.1. هل تعلم بوجود المصارف الإسلامية التي تقدم الطرق المالية الإسلامية في العديد من دول العالم مثل مصرف دبي الإسلامي؟
2	لا	س.2. في أي الطرق المالية التالية أنت على معرفة تامة؟ إقرأ القائمة التالية: المضاربة (النقدة في رأس المال عندما المقرض يشارك فقط الأرباح وليس الخسائر) المشاركة (المشاركة في الأرباح والخسائر) المرابحة (الربح الإضافي على البيوع) البيع المؤجل (دفع قيمة المبيعات مؤجل) بيع السلام (دفع قيمة المشتريات مقدماً) إكتيننة (عقود التصنيع)

7	الأجرة (التمويل التأجيرى)
8	القرض الحسن (القرض الخيرية)
9	لا أعرف أى واحدة منهن
	س.3. الطرق المالية الإسلامية ممكّن أن تطبق فردياً، أى منهن أنت أو مصرفك يستخدم في السابق؟ أقرأ القائمة التالية.
1	المضاربة
2	المشاركة
3	المرابحة
4	البيع المؤجل
5	بيع السلام
6	إكتيننة
7	الأجرة
8	القرض الحسن
9	لم أستخدم أى واحدة منهن

#### الجزء الثاني: وجهات النظر بخصوص استخدام الطرق المالية الإسلامية.

	س.4. إذا المصارف الإسلامية تأسست في ليبيا لتقديم الطرق المالية الإسلامية، أى الأسباب التالية من المحتمل أن يكون لك دافع لتقديم الطرق المالية الإسلامية؟ عندما أقرأ كل واحد من هذه الأسباب أريدك أن تخبرني عن درجة أهمية هذا السبب حسب رأيك من 1 إلى 7 علمًا بأن 1 تمثل غير مهم على الإطلاق و 7 تمثل مهم جداً.
7	الأسباب
7	1. الطرق المالية للمصارف الإسلامية تكون بدون فوائد.
7	2. المصارف الإسلامية تقدم طرق مالية طبقاً للشريعة الإسلامية.
7	3. تقديم الطرق المالية الإسلامية قد يزيد من حجم ودائع المصرف.
7	4. الطرق المالية الإسلامية قد تسهم في توسيع سوق القروض.
7	5. الطرق المالية الإسلامية تسمح للمصرف أن يستخدم طرق تمويل إستثنائية مثل التمويل التأجيرى.
7	6. العائد للمصرف باستخدام الطرق المالية الإسلامية قد يكون أعلى من العائد عند استخدام الطرق المالية التقليدية.
7	7. الطرق المالية الإسلامية قد ينتج عنها رقابة فعالة للفروع المملوكة.
7	8. الطرق المالية الإسلامية قد تشجع على الإقراض للبداء في مشروعات برأس المال صغير.
7	9. طريقة المشاركة في الربح والخسارة قد تدعم العلاقة بين المصرف والزبائن.
7	10. طريقة المشاركة في الربح والخسارة تسمح للمصرف مشاركة مخاطر الاستثمار مع المقترض.
7	11. المشاركة في الأرباح قد تساعد المقترض في تخفيض درجة مخاطر الإفلاس.
7	12. تسديد الديون يمكن التحكم فيه بسهولة عند استخدام الطرق المالية الإسلامية.
7	13. تقديم الطرق المالية الإسلامية قد يزيد من ربحية المصرف.
7	14. تقديم الطرق المالية الإسلامية يمكن أن يساهم في تطور الاقتصاد الليبي.
	س.5. إذا المصارف الإسلامية تأسست في ليبيا هل من الممكن أن مصرفكم يقدم الطرق المالية الإسلامية؟
1	نعم
2	لا

**الجزء الثالث: المعلومات العامة عن المصرف /**

	<p>س.6. أي الأنواع التالية يكون مصرفكم؟ أقرأ القائمة التالية:</p> <p>1 مصرف حكومي 2 مصرف متخصص 3 مصرف أهلي 4 مصرف خاص</p>
	<p>س.7. أي التصنيفات التالية يكون مصرفكم؟ أقرأ القائمة التالية:</p> <p>1 إدارة عامة 2 فرع رئيسي 3 فرع</p>
	<p>س.9. كم سنة عمل لمصرفكم في مجال المعاملات المصرفية حتى الآن؟ أقرأ القائمة التالية:</p> <p>1 أقل من 103 سنوات 2 من 10 إلى 20 سنة 3 أكثر من 20 سنة</p>

**شكراً جزيلاً على المساعدة**