Financial characteristics of interest-free banks and conventional banks

Waleed Al-Sultan
University of Wollongong

FINANCIAL CHARACTERISTICS OF INTEREST-FREE BANKS AND CONVENTIONAL BANKS

A Thesis Submitted in Fulfillment of the Requirements
for the Award of the Degree

DOCTOR OF PHILOSOPHY

from

The University of Wollongong
New South Wales
Australia

by

Waleed Al-Sultan
B.Com (Kuwait)
M.Com (Oklahoma)

DEPARTMENT OF ACCOUNTING AND FINANCE
1999

DECLARATION

I hereby certify that this thesis has not been submitted previously as part of the requirements of another degree and that it is the result of my own independent research.

Waleed Al-Sultan

ACKNOWLEDGEMENTS

I would like to express my profound thanks to my supervisors, Professors Michael Gaffikin and Mokhtar M. Metwally, whose guidance, penetrating comments, helpful criticism and constructive suggestions have been instrumental to the completion of this thesis. I highly appreciate the considerable time they spent on my work.

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DEDICATION

To my mother, Mrs Fatemah, a living courage to my life, my father Saud Al-Sultan, a partner in heart and intellect, and my good brother Khalid Al-Sultan.

ABSTRACT

Many countries all over the world currently experience what became known as "Dual Banking" where interest-free Islamic banks operate side by side with conventional banks. Islamic banks conduct normal business as any conventional bank but do not pay or receive interest. They operate on profit/loss sharing principle. By this, is meant both the supplier of the funds and the borrower share the risks; both prosper when returns are favorable and suffer together when returns are poor.

The literature on Islamic banking and finance though recent is growing fast. Western scholars have begun to show an interest and make substantial contributions. The interdisciplinary nature of the literature offers a challenge.

However, there are still numerous questions to be answered, many problems to be solved and a number of challenges to be faced. In particular, empirical work is needed to assess the differences in financial characteristics of interest-free and conventional banks. Also, nothing much has been written about the loan market in a dual banking system. Moreover, very little is known about the attitudes of clients towards Islamic vis-a-vis traditional banks. Furthermore, research on the performance of Islamic banks in individual countries has not received much attention.

This thesis is an interdisciplinary study which attempts to make a (very) modest contribution towards filling the gap in the literature.

In particular, this study tests for structural differences between the financial characteristics of Islamic and traditional banks. This testing is done through the use of discriminant analysis applied to a sample of 48 Middle Eastern banks, 12 of which are interest-free banks. The analysis covers 20 financial ratios which evaluate liquidity, leverage, performance, credit risk, probability and efficiency.

This study also tries to model the decision, of a client facing a dual banking system, to deal with a traditional or an Islamic bank. This is done using logit and probit regression analysis.

A simultaneous equations model is developed and tested using time series data for 18 conventional banks and 12 Islamic banks to examine the performance of the commercial loan market within a dual-banking system.

Moreover, this thesis tries to test if the transactions of Islamic banks are really free of all traces of "usury interest". A case study of the Kuwait Finance House is conducted. This involves in-depth analysis of the activities, products and financial statements of this company.

The clients' perceptions of Islamic banking are also examined. This is done through the application of factor analysis to survey results collected by the researcher

on Kuwaitis' attitudes to Kuwait Finance House, the oldest and largest financial institution operating in Kuwait.

The analysis of the evolution of Islamic banks suggest that these banks use the same tools and procedures as traditional (i.e. interest-based) banks in those areas where there is no conflict between banking operations and Islamic principles. Islamic banks have devised (and are still devising) new instruments to enable them to achieve their objectives in accordance with Islamic Laws.

The simultaneous equations regression analysis suggests that the price of loans charged by Islamic banks does not exert any significant influence on the demand for commercial loans of the customers of conventional banks. However, the demand for funds offered by Islamic banks is positively correlated with the rates of interest charged by conventional banks operating within the dual banking system.

The logit and probit regression results suggest that the more people adhere to Islamic teachings, the higher the proportion of clients which deals with Islamic banks. The results also suggest that, age, income and occupation, are important factors in deciding which banking system to choose.

An analysis of those activities and tools of finance of Kuwait Finance House (KFH), the only Islamic Bank currently operating in Kuwait, suggests that this company is not a mere bank. It acts as a financier, contractor, lessor, developer and agent.

The consumers' survey suggests that 49.3 percent of the respondents borrowed funds from KFH at some time during the last five years, but only 34.5% of the respondents held some type of deposit account with KFH during the time of the survey. The survey also suggests that 51.7 per cent of the respondents prefer to deal with traditional banks rather than KFH.

Application of principal component analysis to survey results suggests that variables which motivate customers to deal with KFH rather than traditional banks can be condensed into five factors, namely: religion, traditional services, terms of borrowing. community development and convenience religion. Those respondents who prefer to deal with traditional banks rather than KFH expressed doubts about the interest-free nature of transactions of KFH; fear that their deposits with KFH may not be guaranteed by the Kuwaiti Central Bank, dissatisfaction with current restrictions of the application of the profit/loss sharing principle, particularly in the area of personal loans, belief that the transactions of the two type of banks are very similar and feeling each type of bank provide same traditional services.

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Chapter One

INTRODUCTION

Islamic (interest-free) banks were established to conform with Islamic laws (called "Sharia") which prohibit interest on all forms of transactions (personal, commercial, agricultural, individuals etc.) whether these loans are made to friends, private or public companies, government or any identity. These banks conduct normal business as any conventional bank but do not pay or receive interest. They operate on profit/loss sharing principle. By this, is meant that both the supplier of the funds and the borrower share the risks; both prosper when returns are favorable and suffer together when returns are poor.

Currently there are more than 150 Islamic financial institutions in various parts of the world operating on the profit/loss sharing basis. The Al-Baraka group, which began business at the start of 1980's, is the fastest growing interest-free banking group with branches in the Middle East, Africa and Europe. The Al-Rajhi group, which was developed by a group of Saudi money changers in 1978, is also expanding in the United Kingdom. It, together with Al-Baraka group and the Kuwait Financial House, established the Islamic banking system international which has founded a separate Islamic bank in Denmark - the first such European-based bank designed to encourage trade and development participation between Scandinavia and the Middle East.

Many countries all over the world currently experience what has become known as "Dual Banking" where interest-free banks operate side by side with conventional banks. The borrowers have the option to deal with any of these banks. If they choose to transact with an Islamic bank, they would have to obtain funds on the profit/loss sharing principle. If, on the other hand, borrowers choose to deal with conventional banks, they will pay fixed (or variable) interest.

The Problem:

The reason d'etre and the principles on which interest-free banks operate raise a number of questions: What are the accounting and financial implications of the profit/loss sharing principle? In particular, do the financial dimensions of Islamic banks differ from those of traditional banks? How the decision to deal with a traditional or Islamic bank in a society which has a dual banking system is modelled? Does the profit/loss sharing principle adopted by the Islamic banks, operating side-by-side with conventional banks, have any significant effect on the commercial loans market? Are the transactions of Islamic banks, free of all traces of interest? What are the consumers' perceptions of interest-free banks?

Previous Research

Literature on Islamic banking and finance is relatively new. Rigorous research related to this literature has intensified since the mid-seventies with the establishment of the World Center for Research in Islamic Economics at King Abdul-Aziz University in Jeddah; the launching of the Journal of Research in Islamic Economics; the creation of Islamic Foundation in Leicester and the Institute of Policy Studies in Islamabad. The conversion of the entire banking system in Iran and the Sudan to Islamic banks encouraged research by bankers, managers and other practitioners to face various challenges and solve problems of transformation.

Although most contributions to the literature on Islamic banking and finance have been made by Muslim economists, Western researchers have recently joined the discussion with variant views. Amongst those one may mention the contribtions by Christine (1990), Moore (1990), De Rosa (1986), Ninehaus (1983), Persleyed Session (1994), Ray (1995), Robinson (1989) and Wilson (1990).

A significant portion of the literature on Islamic banking and finance has been written in the Arabic language. This is partly due to the fact that the Holy Quran, the Prophet's traditions and most sources of "Sharia" (the Islamic Law) which constitute the theoretical base of Islamic banking are reported in Arabic. Another reason is the fact that the first few banks operating on Islamic principles were established in the Arab Countries (Egypt, Jordan, Kuwait, Saudi Arabia and the U.A.E.). The use of the Arabic language has slowed down the spread of argument particularly amongst Western researchers. However, the contributions of Pakistani scholars have been most significant and noticeable in terms of in-depth analysis. These contributions were made,

mostly in English. One may mention the work by Ahmad Ausuf (1994, 1995), Ahmad Khurshid (1980), Ahmad Mahmoud (1952), Ahmad Ziauddin (1984, 1992 and 1994), Alis Mazoor (1994), Ashkar (1988), Chapra (1982, 1985 and 1995), Hamdi (1992), Khan, F. (1983, 1987), Mannar (1986, 1990), Qureshi (1946), Siddiqi (1973), Zaidi (1987) and Zaman (1993).

Most contributions by Western researchers were made by Muslim scholars occupying positions in Western Universities and research institutions. One may mention the contributions by Choudhary and Malik (1989), Choudhary (1993), Hasan (1994), Khan (1986), Khan and Mirakhar (1989) and Metwally (1982, 1984, 1985, 1986, 1989, 1992, 1993, 1994 and 1995).

Although the literature on Islamic banking and finance has been accumulating at a very impressive rate, the field of study is still virgin. Also, a great deal of the contributions have focused on the theoretical aspects of Islamic banking and finance with very little empirical work. Moreover, lack of data, and in particular long time series and survey results, has been a major obstacle in developing the literature. Furthermore, very few studies, if any, developed and tested models to address some of the questions mentioned above and which can only be answered in the light of empirical evidence. As examples:

(1). Although a number of previous studies have attempted to explain differences between the financial characteristics of interest-free and traditional banks, these studies have been very limited in scope and used a naive methodology.

(2). No attempt has been made to model the decision as to whether a client in a society which has a dual banking system selects to deal with a conventional bank or an Islamic bank. It is not known whether the socio-economic characteristics of the client has any bearing on this selection. More importantly, it would be useful to learn if the probability that a client chooses to deal with an Islamic bank increases or decreases with changes in such variables as age, income, level of education and job.

(3). It appears that no attempt has been made to model the commercial loan market in a dual-banking system, where the supply and demand conditions for loans facing the two, type of banks may be quite different.

(4). Although there are a number of individual case studies related to Islamic banks which have been referred to in the review of literature in Chapter two of this thesis, there is no available evidence on the nature of the transactions of these banks, and in particular whether these transactions are free of all traces of "usury" or interest. These studies are far from being complete and further studies for more countries are needed.

(5). Hardly any empirical evidence exists regarding consumers' perception of Islamic banks. The degree of competition between Islamic banks and interest-based banks operating in the same country is not known. Although the clients of Islamic banks have religious incentives to use Islamic products, they inevitably make comparisons between returns and investment accounts with Islamic banks

and those on time deposit accounts with conventional banks since they do not want to be exploited because of their religious beliefs.

Objectives of the Study

This study is an attempt to close some of the above-mentioned gaps in the literature on Islamic economics. In particular, this study aims to:

(1). Test for structural differences between the financial characteristics of Islamic and traditional banks. This testing is done through the use of discriminant analysis applied to a sample of 48 Middle Eastern banks, 12 of which are interest-free banks. The analysis covers 20 financial ratios which evaluate liquidity, leverage, performance, credit risk, probability and efficiency.

(2). Model the decision of a client facing a dual banking system, to deal with a traditional or an Islamic bank. This is done using logit and probit regression analysis.

(3). Examine the impact of the profit/loss sharing principle of finance adopted by Islamic banks, operating side-by-side with conventional banks, on the performance of the commercial loan market. To achieve this objective, a simultaneous equation model is developed and tested using time series data for 18 conventional banks and 12 Islamic banks.

(4). Test if the transactions of Islamic banks are really free of all traces of "usury" or interest. A case study of the Kuwait Finance House is conducted. This involved in-depth analysis of the activities, products and financial statements of this company.

(5). Determine the clients' perception of Islamic banking. This is done applying factor analysis to survey results collected by the researcher on Kuwaitis' attitudes to Kuwait Finance House, the oldest and largest financial institution operating in Kuwait.

Hypothesis of the Study

This thesis is based on a number of hypotheses:

(i) Interest-free banks operate side-by-side with traditional (interest-based) banks. The results therefore, do not apply too much to countries where the whole banking system is operating on Islamic principles.

(ii) Islamic banks offer unique products that are not available from traditional banks operating in the same society.

(iii) Islamic banks apply, to a great extent, the accounting principles of traditional banks with respect to financial statements.

(iv) The charges related to the volume of funds or period of use of funds and which (i.e. charge) is determined in advance regardless of the outcome of the transaction and is regarded as an interest payment.

(v) There is no restrictions on clients to deal with a particular type of bank and clients are aware of the products offered by various banks.

Methodology

This study uses the quantitative approach in achieving its objectives. In particular:

(i) The study uses a two-group discriminant analysis to test for differences in the financial structures of Islamic and non-Islamic banks.

(ii) The study uses probit and logit regression analysis to model the decision to deal with a traditional or Islamic banking in a society which has a dual banking system.

(iii) The study develops and tests simultaneous-equation systems to model the commercial loan market in a dual-banking system where the supply and demand conditions for loans facing Islamic and traditional banks may be quite different.

(iv) The study uses factor analysis to determine Kuwaitis' attitude towards Kuwait Finance House, the largest and oldest interest-free bank in the country.

(v) The study uses traditional accounting and economic techniques in analyzing the activities, products and financial statements of Kuwait Finance House in order to establish if the transactions of this Islamic bank is free of all traces of interest..

It must, however, be emphasized, that this study is an inter-disciplinary research. It cuts across economic, accounting and financial disciplines, and should therefore, be assessed accordingly.

Plan of the Study

This study is divided into eight chapters. After this introduction, Chapter two reviews the literature on Islamic banking and finance in order to lay the foundation of the following chapters. Section one shows that this literature is distinguished by a number of features which render it unique. The main contributions to Islamic banking and finance are summarized in section two. Some of these contributions are made by economists, while others refer to work by accounting and business practitioners. Specific contributions to accounting and financial practices of Islamic banking are discussed in section three. This section also refers to research related to competition between Islamic banks and between Islamic and non-Islamic banks operating within a dual banking system.

Chapter three briefly reviews the theoretical foundation of interest-free (Islamic) banks and outlines the main objectives of these banks and the means of achieving these

objectives. The chapter lays particular emphasis on Islamic banking tools of finance, and Islamic banking products and gives a summary of the financial highlights of the Islamic Financial Institutions (IFIs) operating in various parts of the world. The chapter is divided into five sections. Section one reviews the theoretical foundation of Islamic banks. The objectives of these banks are outlined in section two. Some types of Islamic banks are distinguished in section three, while section four analyses the tools, practices and products of contemporary Islamic banks. The Islamic Financial Institutions currently operating in various parts are examined in section five.

A study of the commercial loans market in a dual banking system is conducted in chapter four. This chapter develops and tests simultaneous equation models to find out if the profit/loss sharing principle adopted by Islamic (interest-free) banks, operating side-by-side with conventional (interest-based) banks, has any significant effect on the commercial loans market. A demand-supply model has been estimated using time-series data for conventional and Islamic banks during the period 1980-1995. The chapter is divided into three sections. Section one offers a brief theoretical discussion of the commercial loans market in a dual banking system. Section two develops demand-supply models that can be tested using simultaneous equation systems. The regression results are reported in section three.

Chapter five uses discriminant analysis to test for structural differences between the financial characteristics of interest-free banks and conventional banks. The study covers a sample of 40 Middle Eastern banks, 12 of which are interest-free (Islamic) banks. The analysis extends to a number of financial ratios which evaluate liquidity, leverage, performance, credit risk, profitability and efficiency. Section one discusses the

main properties of the sample. The methodology is outlined in section two. Section three gives the results of discriminant analysis.

Chapter six investigates the client's choice of interest-free banking. This chapter uses the logit and probit regression analysis to model the decision as to whether a client in a society with a dual banking system chooses selects to deal with a conventional bank or an Islamic bank. The analysis is based on data collected from three Middle Eastern countries namely Egypt, Saudi Arabia and the United Arab Emirates. The explanatory variables include age, income, type of occupation and level of education. The chapter is divided into four sections. Section one lays the theoretical foundation of the study. The main characteristics of the sample used in the analysis are discussed in section two. Section three briefly reviews the logit and the probit models.

Chapter seven analyses the structure and performance of Kuwait Finance House (KFH), the oldest and largest interest-free financial institution operating in Kuwait. The study examines the activities and products of the company, analyses its most recent financial statements and assesses its performance over the last twenty years. This chapter also compares the structure and performance of KFH with those of the commercial banks operating in the same country.

Chapter eight uses factor analysis to determine Kuwaitis' attitudes towards Kuwait Finance House (KFH). A survey was conducted by the researcher covering 385 Kuwaitis. Respondents were asked to indicate their degree of agreement with a number of statements regarding borrowing, depositing and dealing with KFH vis-a-vis the other six Kuwaiti commercial banks. The chapter is divided into five sections. Section one

examines the main characteristics of the sample. The methodology is outlined in section two. Section three summarizes the results of factor analysis. Three sets of results are incorporated: factor analysis applied to the main variables affecting Kuwaitis' decision to borrow from KFH; factor analysis applied to the reason for selecting KFH as a venue for deposits and factor analysis applied to the main banking attributes which determine the attitudes of consumers towards KFH vis-a-vis the other six traditional (interest-based) banks.

Chapter nine summarizes the main conclusions of the research. The thesis offers a bibliography for reference by future researchers.

Chapter Two

Islamic Banking and Finance : Review of the Literature

Abstract

This chapter reviews the literature on Islamic Banking and Finance in order to lay the foundation for the following chapters. It is shown that this literature is distinguished by a number of features which render it unique. The chapter highlights the main contributions by accountants, economists and business practitioners and offers a bibliography for reference by future researchers.

Islamic Banking and Finance : Review of the Literature

Introduction

Islamic (or interest-free) banks were established to conform with Islamic laws (called Sharia) which prohibit interest on all forms of transactions (personal, commercial, agricultural, individual, etc.) whether these loans are made to friends, private or public companies, government or any identity. These banks conduct normal business as any conventional bank but do not pay or receive interest. They operate on profit / loss sharing principles. By this, it means both the supplier of the funds and the borrower share the risks; both prosper when returns are favourable and suffer together when returns are poor.

This chapter reviews the main literature on Islamic banking and finance. This literature has some unique features which are outlined in section one. The main contributions to Islamic banking and finance are summarized in section two. Some of these contributions are made by economists, while others refer to work by accountants and business practitioners. Specific contributions to accounting and financial practices of Islamic banking are discussed in section three. This section also refers to research related to competition between Islamic banks and between Islamic and non-Islamic banks operating within a dual banking system. The chapter is concluded with a bibliography which hopefully would assist future research in this field of specialization.

I Distinguished Features of Literature on Islamic Banking

The literature on Islamic Banking is distinguished by a number of unique features. The following may be mentioned:

- The literature on Islamic banking and finance is relatively new. Rigorous research related to this literature has intensified since the mid-seventies with the establishment of the World Center for Research in Islamic Economics at King Abdul-Aziz University - Jeddah, the launching of the Journal of Research in

Islamic Economics (by the same Center), the creation of the Islamic Foundation in Leicester and the Institute of Policy Studies in Islamabad. The conversion of the entire banking system in Iran, Pakistan and the Sudan to Islamic banks encouraged research by bankers, managers and other practitioners to face various challenges and solve problems of transformation.

- The literature on Islamic banking and finance is interdisciplinary. Accountants, economists and managers alike have made substantial contributions to this literature. Despite the focus on the specific area of specialization, the findings of various researchers are well interwoven. For example, the accounting methods and practices are based on the theoretical contributions of economists. Also, managers and bankers try to adopt new techniques put forward by economists and accountants.

- Most contributions to the literature on Islamic banking and finance have been made by Muslim economists. It is only recently that Western researchers have begun to join the argument with variant views. Amongst those one may mention Christine (1990), Moore (1990), De Rosa (1986), Ninehaus (1983), Persley and Session (1994), Ray (1995), Robinson (1989) and Wilson (1990).

- A significant portion of the literature on Islamic banking and finance has been written in the Arabic language. This is partly due to the fact that the Holy Quran, the Prophet's traditions and most other sources of "Sharia" (The Islamic Law) which constitute the theoretical base of Islamic banking are reported in Arabic. Another reason is the fact that the first few banks operating on Islamic principles were established in the Arab Countries (U.A.E., Egypt, Kuwait, Jordan, Saudi Arabia, etc.). The use of the Arabic language has slowed down the spread of argument particularly amongst Western researchers. However, the contributions of Pakistani scholars have been most significant and noticeable in terms of in-depth analysis. These contributions were made, mostly, in English. One may mention the work by Ahmad Ausuf (1994, 1995), Ahmad Khurshid (1980), Ahmad Mahmoud (1952), Ahmad Ziauddin (1984, 1992 and 1994), Alis Mazoor (1994), Ashkar (1988), Chapra (1982, 1985 and 1993), Hamdi (1992), Khan, F. (1983, 1987),

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- A large volume of research on Islamic banking and finance has taken the form of submissions to seminars and conferences. Unfortunately, very few Western scholars attended those meetings although English was, in most cases, the language of presentation. Also, the proceedings of most of these meetings were not published which limited the spread effect of their contributions.

- Despite all the limitations and obstacles, the literature on Islamic banking and finance has been accumulating at very impressive rate. Scholary journals have shown interest in publishing research in the area. A number of Western universities have turned out Masters and Ph. D. theses on Islamic economics and finance and a few theses are still in the pipeline. The interest in Islamic finance has been pushed to the extent that some Western Universities now offer postgraduate diplomas and degrees in this area of specialization. Moreover, some universities are even considering the creation of Chairs in Islamic economics and finance (e.g. Rice University in the USA).

II Contributions to Islamic Banking and Finance

The first contribution to the notion of banking without interest was Qureshi (1946). To him, a bank in an Islamic economy should have a government institution, like other government organisations, which provides a social service. He alluded to the principle that Islamic banks must not charge interest on loans or pay interest to

account holders. But this work did not mention details about the profit sharing arrangements of interest-free banking (Ahmed Ausaf 1994).

Ahmad, M. in 'Economic of Islam' (1952) visualised Islamic banks as joint stock companies with limited liabilities. He entertained the idea of possible partnership arrangements between the bank and the account holders. However, the partnership principles were not clearly defined in this work. Furthermore, funds held in current accounts were suggested to be utilised in discounting trade bills without charging interest. This work was among the initial writings which discussed profit sharing as a substitute of interest.

Uzair (1955) formulated an early version of the theory of interest-free banking. His main contribution was in suggesting mudarba (Islamic mode of lending) as the major tenet for banking without interest. However, his arguments that the banks should not make any capital investment with the deposits rendered his work somewhat not practical.

Irshad (1964) suggests mudarba as a basis of Islamic banking. But he put the capital supplier and the entrepreneur in an equal position and argued that they should share losses and profit equally. This does not conform with Sharia that requires profit of business activities to be shared in a predetermined ratio, while in case of the losses, the financier should lose his capital while the entrepreneur (as a manager) loses his time and efforts. Irshad recommended the setting-up of a reserve fund, which would compensate all losses.

The practical formulations of the theoretical studies started with the contribution of Siddiqi. His work 'Ghair Sudi Bankari' (Banking without Interest) was first appeared in Urdu in 1968. The English version was not published until 1973. This work contained the subject matter at length for the first time. He built up an elementary model of interest-free banking, which was based on mudarba and Musharka (partnership). He classified the operations of Islamic banks into three categories; 1) services based on fees, commission or other fixed charges, 2) financing on the basis of partnership, and 3) services provided free of charge.

Some of the later writers are of the views that working on a better Islamic sprit, Islamic banks should be small localised institutions. Ahmad, Ziauddin 1984 advocates these views and expresses that Islamic bank should be decentralised chain of institutions sharing the features of a local bank, a co-operative society and a social service organisation (Ahmad, Ziauddin 1984). Umer Chapra is in favour of a number of medium sized banking institutions which are neither too small as to be uneconomical in their operations nor too big as to exercise enormous powers (Chapra 1982). Most of other writers seem to have the views that Islamic banking pratice can be introduced in the existing set-up of banks in different countries irrespective of the size of the bank.

The recent literature on Islamic Banking can be divided into three groups. The first is descriptive in nature. It consists mainly of historic discussions on the nature of the economic system and its institutional set-up. Most of this literature is written by Muslim scholars who are firm supporters of Islamic banking. The major scholars of this group are Siddiqi, Muhammad Nejit Ullah (1973); Chapra, Umer (1985);Ahmad, Khurshid (1980); Mannan, Muhammad A. (1970) and Ahmad, Ziauddin (1994).

The second type of literature is based on the theoretical framework of the system and attempts to form a system on theoretical grounds. The prominent writers of these writings are Khan, Shah Rukh Rafi (1987); Metwally (1994); Nadeem-ul-Haq (1987); Maabid Aljahri (1983); Khan M. Fahim (1983); and Khan M. Waqar (1985). The Majority of this type of works are articles, conference, seminars and symposium's presentations, which contributed significantly to the theoretical formulation of Islamic banking.

The work in 'Theoretical Studies in Islamic Banking and Finance' edited by Mohsin S. Khan and Abbas Mirakhor (1987) consist of readings that represents second stage of writings based on theoretical research. This volume describes the main features of an Islamic interest-free banking and its financial system. It discusses some important issues in mainstream macroeconomics. It also evaluates the current

economic policies in Iran and Pakistan with reference of their recent experiments of Islamic banking.

On employing the modern analytical techniques, these papers demonstrate that in principle an interest-free financial system can be viable and stable. Metwally (1994) made a significant contribution in the area of financing of non-commercial loans by interest-free banks. To eliminate the element of interest, he introduced a new concept which he called 'The opportunity cost project approach'. This new financing technique confirms with the Sharia's principle of financing loans on 'Unrestricted Mudarba'.

Other theoretical contributors have argued that although the modes of operations of the central bank would be different, there would be no fundamental change in the way that money supply would affect the economic variables in an Islamic economic system. They argued that under some circumstances the Islamic system may be less prone to a banking crisis. These contributors also suggest some important areas for further research. This may include, the effect of deregulations of the banking industry on the risk of banking crisis; cost benefit analysis of Islamic banking; effects of risk on aggregate savings; whether transaction services and portfolio management should be separated or integrated and so on.

The third group of writers focuses on evaluating the experiences of Muslim countries in connection of Islamic Banking. Specially for those countries which have made some progress towards restructuring their institutions according to the conditions laid down in Islam. Among these-writers are Huq A. (1986); Ashkar A. F. (1987); Halim A. (1986); Khan M. S. (1986); Salma A. (1986) and Abdul-Gader and Al-Ghahtan (1990). These studies present the similarities and difference of the practicing of Islamic banking in different countries.

Nienhaus (1983) explains some unfortunate experiences of the Kuwaiti finance in real estate and construction sector investments. He also mentioned the losses of the Islamic Bank International in Denmark. As he noted, individual banks

had specific circumstances and it is not possible to draw general conclusions from particular cases.

Kazarian (1993) discussed some experience of Islamic banking in Egypt and provided a comparison of dual banking system in the country. He concludes that the experience in Egypt is not much different from that in Iran and Pakistan. According to him, the banks in the three countries were not based on profit and loss sharing principles, but rather on traditional financial practices (that is financial instruments based on a fixed rate of return).

Some research dissertations have also been written, but their scope was limited. For example Jafry M.A. (1991) has written a dissertation on Islamic Banking in Pakistan. Most of the work is devoted to describing the economic system in Islam rather than explaining the experience of Islamic banking in Pakistan. Rarely, any reference has been made to the recommendations of The Council of Islamic Ideology in Pakistan which should be an ingredient part of the study.

An interest-free based system has attracted the attention of a few Western economic scholars and economic professional. Among, them are Timur Kuran (1983), Dean De Rosa (1986), Rodney Wilson (1986), Volker Nienhaus (1988) and Presley J.R. (1988). Presley and Sessions (1994) recognise Islamic Economics as an apparently new paradigm in economics. They pointed out that Islamic financing technique 'Mudarba' leads, under certain conditions, to an enhanced level of capital investment. On referring to the Western literature on finical contracts they concluded that a mudarba contract between a project manager and a syndicate of investors may permit a more efficient revelation of any informational advantage the manager may have over the latter.

III Specific Contributions to Accounting and Financial Practices of Islamic Banks

N. Hassan (1993) suggests that "Islamic banks should be considered as a different industry when compared to Western-type commercial banks". According to Hassan the two types of bank have different objectives, rely on different economically-based concepts, with different operations and organizations, and in addition they adopt, in some instances, different accounting policies. The implications of "industry differences" have an important bearing on the distribution of financial ratios, which should be taken into account in any attempt to compare the performance of the two types of bank.

W.M. Khan (1989) used rigorous mathematical techniques to compare the Islamic financial system based on the variable return scheme [VRS] with the traditional one based on the fixed return scheme [FRS]. It is shown, under certain assumptions which include risk aversion on the part of the investors, that a Pareto optimal contract is the VRS. Also VRS spreads risks more evenly than FRS allowing more risk taking in the economy. The domination in the real world by FRS i.e. debt contracts, is shown to be caused mainly by international asymmetry and higher monitoring costs in the case of VRS. But these costs are not prohibitive. The more effective the methods of monitoring and the higher the level of honesty on the part of economic agents, the more superior the Islamic financial system would prove to be in practice.

The economist (1996) argues that Islamic banks are reluctant to tie up cash for long periods because Muslim investors, like non-Muslim ones, want access to their savings at short notice. To raise money at short notice, non-Islamic banks either tap local money markets or borrow from one another in interbank markets. But, largely because of religious disputes, the economist argues, there are no Islamic versions of these markets. Hence Islamic institutions' growing enthusiasm for investing in equities. In principle, by buying a firm's shares instead of lending it money, they can get around the religious prohibition on receiving interest. And because most publicly

traded shares are easy to buy and sell, they should be able to raise cash swiftly when they need it. As well as investing directly in shares, some banks have also set up "Islamic" equity funds to attract money both from other Islamic banks and from Muslim investors currently with non-Islamic institutions. Since September 1994, five equity funds have been set up. These include a $137m fund launched by Saudi Arabian national Commercial Bank [NCB] in January 1995. Several more are in the pipeline.

According to Qureshi [1990], the Islamic banks have identified and developed a relatively broad range of business and banking instruments which include Mudaraba, Musharaka, Murabaha, Bai-Muajjal, Bai Salam, Ijarah and Qard Hasan. In his recent contributions (1993 and 1994), Qureshi describes a financial instrument called "Participation term Certificate {PTC}", a substitute for traditional debentures which is widely practiced in the area of corporate finance in Pakistan.

Mannan (1990) suggested some new innovative instruments to mobilise financial resources. These products include: Loan Certificates, Index Linked Loan Certificates, Islamic Commercial Papers, Integrated Investment bonds, Profit Sharing Certificates, Expected Rate of Dividend Certificates, Rent sharing Certificates, Firm Commercial Certificates, Zakah Certificates and Human Capital Certificates. These products he says "can be organized in one way or another based on the principles of Mudaraba, Musharaka, Murabaha and Hire Purchase".

Mirakhor (1992) presents two models of Islamic banking. The first model integrates the asset and liability sides of the bank based on the principle called "Two-tier Mudaraba", whereby the bank accepts funds from depositors on a profit/loss sharing basis and then, on its asset side, lends out to agent-entrepreneurs for investment. The bank shares the profit/loss with the entrepreneurs according to the terms of the contract and the depositors as well as shareholders share the pooled profit/loss accruing to the bank's business again in some pre-determined percentages. This model of banking also permits the acceptance of demand deposits that earn no profit and may be subjected to a service charge. The second model divides the liabilities of the bank into two sections: demand deposits and investment deposits.

This model requires 100% reserves for demand deposit accounts and the bank charges a safe keeping fee while the latter account has fixed terms as agreed upon by the parties involved. Siddiqi (1980); Chapra (1985) and Uzair (1980) are proponents of the first model, while Khan (1986) advocates the second model.

Haron (1993) empirically studied the perception of potential customers towards the Islamic banking system in two of the states of Malaysia, namely Kedah and Perlis. He found that almost the entire Muslim population and about 75% of the non-Muslims in these areas were aware of the existence of the Islamic banks. However, although these banks were operational in the country more than a decade ago, only about 63% of Muslims have either partly or fully understood the difference between Islamic banks and non-Islamic banks. The percentage of non-Muslims having such knowledge was insignificant. The same conclusion seems to be held by Wilson (1990) who claims that there is a lack of knowledge about Islamic financing techniques and instruments in Muslim societies. The last few years, he says, have certainly witnessed a considerable spread of knowledge on Islamic banking but it is still a minority of Muslims who are aware of this system and a few non-Muslims. In such a poor state of knowledge, he suggests that "an enormous educative effort will be needed if Islamic financing methods are to become more widely known and understood'.

A few researchers have looked into the question of competition between Islamic and non-Islamic banks within a dual banking system. The State Bank of Malaysia Annual Report (1993) envisaged a greater and fiercer competition within the domestic banking industry because all Commercial banks and financial institutions in Malaysia are allowed to offer Islamic banking products in addition to the existing Islamic bank and financial institutions in the country.

Wilson (1990), however, believes that there is no real competition between Islamic banks and conventional banks in a dual financial system because the market is characterised by differentiated products. Although the clients of Islamic banks have religious incentives to use Islamic products, they inevitably make comparisons between returns on investment accounts with Islamic banks and those on time deposit

accounts with conventional banks since they do not want to be short changed or exploited because of their religious beliefs. This fact of real life should induce some competition even between these two types of banks.

Baldwin (1990) argues that the two Islamic banks in Turkey [Al-Barakah Turk Ozal Finana Kurmu and Faisal Finans Kurmu] compete with each other and with the conventional banks and other financial institutions. The two Islamic banks offer a similar range of services and it appears that profits paid to their account holders are also very similar. Baldwin points out that the clients of these banks are largely motivated by having the opportunity to conduct financial transactions in conformity with Islamic principles. The rates of return generated by these banks are of secondary importance to them. On the marketing and advertising front, Baldwin does not see too much opportunity for the Islamic banks to promote themselves because "strict rates on advertising preclude the finance houses (Islamic banks) from marketing any religious references or direct comparisons with each other or with the conventional riba banks in matters such as returns on deposits, efficiency or profitability".

There is also some element of competition between Islamic banks in the international markets. The Geneva based Dar Al-Mal Al-Islam and the Jeddah based Al-Barakah Group compete in the international arena. However, Al-Barakah concentrates on equity investments while Dar Al-Mal focuses on trade finance. There is also a number of non-Islamic financial institutions which offer a similar kind of Islamic products in the international market. These include Kleinworth Benson which offers an Islamic Unit Trust, the Union Bank of Switzerland and Landerbank of Vienna which offer Islamic investment funds, Saudi International bank which offers Islamic trade finance, the Bank of Credit and Commerce International which offers a variety of Islamic financial services.

Conclusions

The literature on Islamic banking and finance though recent is growing fast. Western scholars have began to show an interest and make substantial contributions. The interdisciplinary nature of the literature offers a challenge.

However, there are still numerous questions to be answered, many problems to be solved and a number of challenges to be faced. In particular, empirical work is needed to assess the differences in financial characteristics of interest-free and conventional banks. Also, nothing much has been written about the loan market in a dual banking system. Moreover, very little is known about the attitudes of clients towards Islamic vis-a-vis traditional banks. Furthermore, research on the performance of Islamic banks in individual countries has not received much attention. It is hoped that this will make a contribution towards filling the gap in the existing literature.

Chapter Three

Evolution of Interest Free (Islamic) Banks

Abstract

This chapter briefly reviews the theoretical foundation of interest-free (Islamic) banks and outlines the main objectives of these banks and the means of achieving these objectives. The chapter lays particular emphasis on Islamic banking tools of finance, Islamic banking products and gives a summary of the financial highlights of the Islamic Financial Institutes (IFIs) operating in various parts of the world.

Evolution of Interest - Free (Islamic) Banks

Introduction

Islamic banks, known as interest-free banks, were established to conform with Islamic laws which prohibit interest on all types of loans (personal, commercial, agricultural, individual, etc) whether these loans are made to friends, private or public companies, government or any other identity (Metwally, 1984).

All agree that modern banks perform a useful function which can not simply be ignored. The supporters of interest-free banking believe that the best solution is to permit banks to function but to specify a code under which they should avoid the payment and receipt of interest. Such a code already exists and is being consistently refined and modified to meet new challenges.

Currently there are more than 150 Islamic Financial Institutions in various parts of the world operating on a profit/loss sharing basis. The Al Baraka group, which began business at the start of 1980's, is the fastest growing interest-free banking group with branches in the Middle East, Africa and Europe. The Al-Rajhi group, which was developed by a group of Saudi money changers in 1978, is also expanding in the United Kingdom. It, together with Al Baraka group and the Kuwait Financial House, established the Islamic Banking System International which has founded a separate Islamic Bank in Denmark - the first such European-based bank designed to encourage trade and development participation between Scandinavia and the Middle East.

Very few Western business people deal with interest-free banks, however, as they are regarded as a strange kind of institution which functions in unusual ways that few can understand, although this is beginning to change as such institutions penetrate European Financial Services and set up branches there (Wilson, 1985). Normally, however, the first indirect contact most Western business people have with these banks is when importers in the Islamic world arrange their own credit through Islamic Banks. It is clearly important for the Western exporters to have some understanding of interest-free banking methods, even if the exporter is not involved directly with an interest-free bank and the contract is through a Muslim importer, so that the Western exporter can appreciate the principles of operation involved.

Many countries all over the world currently experience what became known as " "Dual Banking " where interest-free banks operate side by side with conventional banks. The degree of competition between Islamic banks and interest-based (traditional) banks operating in the same country is not known. Some researchers (Wilson, 1990) believes that there is no real competition between Islamic banks and conventional banks in a dual financial system because the market is characterized by differentiated products. Although the clients of Islamic banks have religious incentives to use Islamic products, they inevitably make comparisons between returns and investment accounts with Islamic banks and those on time deposit accounts with conventional banks since they do not want to be exploited because of their religious beliefs.

This chapter analyses the evolution of Islamic banking. It is divided into six sections. Section one reviews the theoretical foundation of Islamic banks. The objectives of these banks are outlined in section two. Some types of Islamic banks are distinguished in section three, while section four analysis the tools, practices and

products of contemporary Islamic International Financial Institutions currently operating in various parts of the world are discussed in section five. Finally, section Six summarizes the main findings of the chapter.

1. Theoretical Foundation of Islamic Banks

Islam prohibits the payment of interest on all types of loans (personal, commercial, agricultural, industrial, etc.) whether these loans are made to friends, private or public companies, government or any other identity. The relevant verses of the Holy Qur'an are clear and unambiguous. Some of these verses may be mentioned here:

'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)

'Allah will deprive usury of all blessing, but will give increase for Deeds of Charity: For He loveth not creatures ungrateful and wicked.' (2:76)

'O Ye who believe! Fear Allah and give 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 dealth with unjustly.' (2:278-279)

'O Ye who believe! Devour not usury, doubled and multiplied: but fear Allah; that Ye may (really) prosper. Fear the Fire, which is prepared, for those who reject Faith.' (3:130-131)

'That which Ye give in usury in order that it may increase on (other) people's property hath no increase with Allah: but that which Ye give in Charity, seeking Allah's countenance, has increased manifold' (3:39)

The following points need to be emphasized:

(i) 'Usury' is translated to mean 'riba'. Riba literally means an excess or addition. With reference to debt, it means any excess above the principal lent. Since interest, however small, is an excess over the capital lent, it is prohibited according to verse 279, Chapter 2 of the Qur'an. It is a common mistake, particularly in the Western thinking, to believe that Islam prohibits usury (excessive interest) and not (mild or small) interest.

(ii) Islam prohibits interest on all types of loans. It is simply not true to say that Islam prohibits interest only on personal loans and allows it for productive loans where the borrower uses the money to make a profit. It should be noted that even in the early days of Islam, money was borrowed not only for consumption purposes, but also for trade. And it is very clear from verse 275, Chapter 2 of the Qur'an (quoted above) that Islam permits trade and prohibits interest. (Qureshi, 1967)

(iii) Islam prohibits all kinds of 'back-door' dealings with interest, particularly those practices followed by some financial institutions in lending money for the purchase of durable goods on installments.

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.' (Siddiqui, 1962)

Islam was not alone or even first in prohibiting the payment of interest. Many ancient thinkers regarded the payment of interest unjust. Lending money at interest was forbidden by the ancient Greeks. Aristotle, whose influence extended over centuries, strongly condemned the taking of interest (Aristotle, 1965). According to him, the sole object of the use of money was to facilitate exchange. A piece of money cannot beget another piece, said Aristotle. Plato, too, condemned interest (Plato, 1921). In its early stages, the Roman Empire prohibited the charging of interest but gradually, with the extension of the Empire and the rise of the trading classes, interest appeared. However, severe restrictions were imposed on rates of interest. These laws were strictly policed. The Romans were the first to enact laws for protection of debtors (Haney, 1911). Payment of interest on money loans was prohibited by Common Law in the Middle Ages (Ahmad, 1964).

Opposition to interest does not mean that modern banks do not have a place in Muslim society. What is needed is a new type of banking which avoids the payment and receipt of interest. This interest-free banking system must specify a code which is

consistent with Islamic Laws (Sharia'h) and yet capable of meeting the rapidly changing needs of ever more sophisticated businesses (Metwally, 1993). The core idea is to replace interest by some other principle e.g. profit/loss sharing. By this, is meant both the suppliers and the borrower of the funds share the risks; both prosper when returns are favourable and suffer together when conditions are poor. This is the basis for what became known as "Islamic Banks" or Interest-free Banks".

2. Objectives of Islamic Banks

In general, the main objective of any Islamic bank is to promote and accelerate the economic development of the society by performing all banking, financial, commercial and investment business in accordance with Islamic principles. Thus the working of Islamic banks must be based on:

1. Prohibition of interest in all forms of transactions.
2. Undertaking business and trade activities on the basis of fair and legitimate profits (Khan, 1983).
3. Attracting funds and employ them in Islamic countries.
4. Developing the saving habit among Muslim individuals.
5. Engagement in business activities that are acceptable and consistent with Islamic law (Shariah). Thus an Islamic bank will not under any circumstances, associate itself with any kind of activity which directly or indirectly involve payment or receipt of

interest, production, consumption or distribution of alcoholic drinks, gambling, production, consumption or distribution of pig meat or any other un-Islamic activity.

6. Promotion of competition.
7. Giving Zakat.
8. Cooperating with other Islamic banks in other countries to foster economic development and social progress of the Muslim community.

The above suggests that Islamic banks have different objectives from traditional banks. While Islamic banks are responsible for the wider social welfare of muslims worldwide, the traditional commercial banks are simply public companies with an essential responsibility to maximize the wealth of their shareholders. This, however, does not mean that Islamic banks do not operate on commercial principles. It only means that profit maximization may not be the sole objective of these banks.

3. Types of Islamic Banks

Existing Islamic Banks may be classified into the following three groups, which characterize their banking activities and ownership.

a) Islamic Commercial Banks

These banks perform their activities like normal commercial banks, but according to the Sharia. They offer diversified alternative modes of finance. Most of the Islamic Banks are of this type. Islamic banks may also be classified according to ownership. There are thus, International Islamic Banks, government-owned Islamic banks, privately-owned

Islamic banks and co-operative Islamic banks. The Islamic Development Bank is an international bank. Nasser Social Bank is government-owned. However, most Islamic banks are privately owned. In Pakistan, there is a mix of ownership of Islamic banks; some are state-owned while others are private owned.

b) Development Banks

The main purpose of a development bank is to foster the process of social and economic development in the country. Usually their activities include financing development projects of the various governments. The Islamic Development Bank in Jeddah, is one type of such bank.

c) Special Purpose Islamic Banks

Some Islamic banks may be created for a specific purpose and they do serve some special class of clients. These may further be classified as social banks, Agricultural banks, Industrial banks etc. These special-purpose banks offer a wide range of services. Nasser Social Bank of Egypt and the Western Sudan bank may be stated as examples.

4. Tools and Practices of Islamic Banks

Islamic banks use the same tools and procedures as traditional (i.e. non-Islamic modern banks) in those areas where there is no conflict between banking operation and Islamic principles. These activities include foreign exchange transactions, domestic and international transfers, letters of credit, and availing safe custody.

{A} Lending and Investment Instruments

Since Islamic banks can not pay or receive interest, it was imperative that they devise new instruments to enable them to achieve their objectives in accordance with Islamic Laws. These instruments include:

[i] Partnership (Musharaka)

Under this method, the bank and the would-be customer agree to join in a partnership for effecting certain operations within an agreed period of time. Both parties contribute to the capital of the project and agree to divide the net profits in proportions determined in advance(Khan and Mirakhar, 1989). There is no fixed formula for profit-sharing and each case is dealt with on its own merit. Such operations in practice vary in duration from a few weeks to a few months, or if need be can go for years. In the case of medium and long-term operations a 'decreasing' form of participation is usually agreed on whereby the ownership of the whole project passes to the client after an agreed period of time during which the Bank is expected to have retrieved its principal plus a suitable share of profits. The Bank screens the client, appraises the project, monitors implementations and, if necessary, takes part in actual management in order to make sure that the anticipated results are achieved (Khan. S., 1987). It is the Bank's policy, however, to entrust management to its partners in the different joint-ventures. A percentage of the net profit is left to the partner in consideration of his role as manager. The rest of the profits are distributed between the Bank and partner according to their

respective shares in the capital of the venture. The value of the fixed assets owned by the partner is estimated in money terms and included in his share of capital (Agaban, 1983).

[ii] Lending With No Participation in Management {Mudaraba or Qirad}

Under this method, the bank provides all the capital of the operation and the client is fully responsible for management. In consideration, the partner gets an agreed proportion of the net profits. In the case of loss resulting from normal business activities, the bank bears all the losses and the client loses only the profit that would have been the reward of his efforts.

The mudaraba agreement could be formal or informal and written or oral. However, in view of the Qur'anic emphasis on the writing and formalizing of loan agreements (The Qur'an. 2: 282-3), it would be preferable for all mudaraba agreements to be in writing, with proper witnesses, to avoid any misunderstanding.

Mudaraba contracts could also be unrestricted or restricted. In the unrestricted case, the mudaraba agreement does not specify the period, the place of business, the specific line of trade, industry or service, and the suppliers or customers to be dealt with. A restriction in terms of any one of these renders the mudaraba into a restricted one. In the case of restricted mudaraba, the mudarib (borrower) must respect the restrictions imposed by the lender. If the mudarib acts contrary to these restrictions, he is alone responsible for the consequences. In the case of mudaraba restricted by time, the mudaraba is dissolved with the expiry of the specified time period. In the case of

unrestricted mudaraba, the mudarib has an open mandate and is authorized to do everything necessitated by the mudaraba in the ordinary course of business. If he is guilty of willful negligence, fraud or misrepresentation, he is himself responsible for the consequences, and the resulting loss, if any, cannot be charged to the mudaraba account (Chapra, 1985).

[iii] Resale Contract (Morabaha)

Under this method the client requests the bank to buy a specific commodity. The bank resells the commodity at a price which covers the purchase price plus the profit margin agreed upon by both parties, which transforms traditional lending into a sale and purchase agreement. The banks claim that there is no element of riba (interest) in this transaction since the agreement of the bank and the actual execution of buying do not contribute any legal obligation (according to Shari'ah) on the customer to buy. Until the partner fulfills his original promise of 'rebuying' the commodity, the risk remains with the bank which justifies the profit. Some Muslim economists (Metwally, 1993; 1994) are concerned about this method of finance on the following grounds:

1. The bank may not actually own the commodity required by the client.
2. The bank itself may not finalize the deal with the owner of the good unless the bank's client approves the purchase or paid a (non-refundable) deposit or offered some sort of security to guarantee that the transaction will not fall through. Hence the risk element may not exist.
3. It is not clear how the profit margin is determined.

4. If the profit margin varies with the time over which the price is repaid, in what way does it differ from interest?

The following requirements must be fulfilled to validate the murabaha contract according to Sharia.

- It is necessary that the profit margin (or the mark-up) which the bank charges be determined by mutual agreement between the parties concerned.
- The good in question should be in physical possession of the bank before it is sold to the client.
- The transaction between the bank and the seller should be separate from the transaction between the bank and the purchaser.
- The client should not be asked to pay any deposit. If the client has paid a deposit and changed its mind, the deposit should be refunded in full.

[iv] Baa'ye Salam (Post Delivery Sale)

The bank buys certain goods on post delivery and pays the cost immediately or sells certain goods on post delivery and receives its cost immediately (Khan, Fahim 1983:264). This instrument has significant implications for agriculture, as it can be used to substitute the present system for advance financing of agriculture commodities or pre-export finance. In the case of Baa'ye Salam the item is delivered at a future date for a price paid in advance. Its main conditions as agreed upon by the majority of Muslim jurists are:

- Contracting parties should be aware of the original purchase price, as well as the margin of profit, provided that profit margin should not be specifically, related to the length of credit allowed to the customer (Gambling T. and Karim R. 1991).
- The agreed price of the product to be delivered should be fully paid immediately in cash at the time of contract. This is the basic condition to hold, otherwise the Salam contract is considered void. This condition is different from the conventional rural credit systems where the payment schedules are spread over throughout the season.
- Delivery of the goods must be fixed for a definite time. That is, the sale contract should be used to acquire goods immediately.
- The goods to be delivered against the Salam contract should be of a type that is commonly available at the time fixed for delivery. This is to hedge the financier against unnecessary risk (Hamdi 1992). However the contract must specify clearly the kind, description and quality of goods to be delivered.

[v] Baa'ye Muajjal (deferred sale)

It is a trade deal in which the seller allows the buyer to pay the price of the commodity purchased on deferred basis in lump-sum or installments. The seller may sell on deferred basis with or without a profit margin (the profit margin may be above or bellow the current market rate or profit) as may be agreed between the parties. Thus, Baa'ye Muajjal does not necessary involve a mark-up, which makes it permissible in principle. Moreover, no extra charge on the agreed price is allowed if the buyer defaults on the due date of payment. The seller may extend the time to the buyer or resort to the court of law (Ali, Manzoor 1994:270).

[vi] Ijara (Leasing)

According to this method of finance the bank purchases a physical capital/equipment and rents it out to the client for a specific period against specific rent. The pros and cons concerning the responsibility of each party have been spelled out before the contract is made to avoid any uncertainty.

Leasing is emerging as a popular technique of financing. The Islamic Development Bank Jeddah, The Bank Islam Malaysia and the commercial banks in Pakistan are using these techniques. At present, Islamic banks are practicing various forms of leasing; one of these is lease purchase agreement. This is a reduced renting procedure whereby the lease can purchase the asset at the lease period at an agreed price. The rental paid during the period of lease may constitute part of the price.

[vii] Ijara-wa-Iktina (Leasing the Physical Capital/equipment)

If the customer needs physical assets for a long time. The bank may procure this asset for the client and lease it for the period desired. The customer is given the option if he wants to own the asset. The client pays the agreed amount of instalments in an investment account. The bank invests these funds for the client in the ordinary way, until the accumulated funds equal the assets price. After paying the cost of procurement and the bank's profit according to the agreement the client may own the asset (Gambling T. and Karim R 1991:38).

In addition to the above, Islamic banks may also provide the usual ancillary services on the basis of commission or service charge such as; opening of L/Cs, purchase and sale of foreign exchange, issue of letters of guarantee, acceptance and servicing of shares, local and overseas transfers, renting of lockers and safes, accepting of subscriptions to shares of companies, acting as Investment Trustees, collection of due payments and claims on behalf of clients and safe custody of documents, securities, etc. for their clients (Ali, 1994:272).

{B} Islamic Banking Accounts

Islamic banks obtain their funds from two main sources:

1. Equity Capital
2. Deposits

The banks operate three kinds of deposit accounts. These are:

[i] Accounts not committed for investment (Current Accounts)

These accounts are operated in the same way as in the conventional banking system. The clients are allowed to withdraw their funds at any time without notice. These deposits are not usually directed for investment in any productivity activity where risk is involved. The banks can recover Zakat and service charges on these. The deduction of Zakat discourages the holding of cash in idle form and stimulates use of these funds for investing in productive activities.

[ii] Accounts duly committed for investment

These may be of two types; savings account and investment accounts.

- Saving Accounts

In this account clients can deposit their savings for short-term and allow the banks to use their money. These funds may be invested in productive affairs on a short-term basis. The banks do not charge any fees but pay a share of the profit to depositors in form of dividends. If loss occurs, the depositor would be liable to share these losses proportionally as realized at the end of the financial year.

- Investment Accounts

In real terms it is not a deposit or saving account but money advanced or offered by the depositor to the bank to invest on his behalf on partnership basis. The depositor is treated as the financier and the bank acts as the managing agent. The investment account holder is entitled to get a proportion of actually realized profits by the banks. These investment accounts are different from the savings account with traditional banks in the sense that Islamic banks cannot determine in advance the level of return that may be offered to investment account holders. The investment account can be of two types:

1. Accounts with authorisation
2. Accounts without authorisation.

In the case of account with authorisation, the account holder authorises the bank to invest the funds in any one of its projects without specifying the project. On completion of the specified period the account holder will get a proportional share of profit/loss. If the accounts are placed without authorisation, the account holder specifies the particular project for investment of his deposited money. The account holder may or may not specify the period of deposits. The bank gives the account holder a share of profit/loss from that particular project according to the specified agreed percentage. For a fixed period-term investment, the depositor is not allowed to withdraw his money before the lapse of the specified period. If withdrawal is made before the specified period, the depositor will lose his share of the profit or which is most common in practice, the bank discounts some of the profit depending upon the duration of the deposit. The client must also share a proportion of any loss on prorata basis.

[iii] Joint or general investment accounts

Some Islamic banks establish some kind of investment pool in place of fixed term deposits. This investment pool is a type of general investment account in which investment deposits of different maturities are pooled together. The deposits are not tied to any specific investment project and can be utilized in different financing operations of the banks. The actual profits are distributed on a prorata basis. These differ from the accounts with authorisation in the sense that banks can utilize these funds for longer-term projects and there may be a higher rate of return.

{C} Islamic Bonds And Securities

To finance big projects and mobilize the resources, Islamic banks may issue securities and bonds on the basis of profit-loss sharing. The following are details of these stocks:

[i] Al-Muqarda Bonds (Lending Bonds)

Some Muslim countries have recently introduced these bonds. These bonds differ from the normal bonds in that they do not have any guaranteed or fixed return to investors. The holders of the bond get a percentage of the profits of the projects financed by the bonds. The proceeds of these bonds are used to finance public utility projects such as; construction of the bridges, roads, etc. The bond holders will have a share in the collection of toll fees and other like receipts.

[ii] Al-Mudarba Securities

This is similar to the Al-Muqarda Bonds in nature and has the same basis as mentioned above. The Islamic securities, however, are not issued for any specified project. For this a Mudarba (participation) company is established. Mudarba company issue these securities in a form of certificate. This is the receipt of money invested for securities and a guarantee of mudarba company to reimburse the share of profit/loss of the company at a date of maturity. The Mudarba companies then invest the money collected from these deposits in local or international enterprises, with the condition that it must in no way utilize against the rulings of Islamic Sharia.

{D} Non-Commercial Loans

Islamic banks cannot get returns on the loans. These loans are provided to the priority sectors where no other alternative technique is feasible. In providing loans, banks are ensured by all lawful means such as collateral or guarantee that the principal amount will be repaid to them. Islamic banks may charge service charges on the basis of actual administrative expenses. The most common forms of loan provisions by these banks are discussed briefly below.

[i] Loans with Service Charges

Some Islamic banks give loans with service charges. This fee should however, be within actual expenses and any addition in fee to the actual service related expenses is forbidden because it is considered to be usurious. The Council of Islamic Fiqh Academy has worked out the following formula for service charges of the bank (Ahmed Ausus 1994:364).

$$\text{Service Charge} = \frac{\text{Actual Administration Expenses}}{\text{Average assets during the period}} \times 100$$

Actual administrative expenditures include: the total expenditures accrued on the profit and loss account minus a return to the depositors, provision to the bad debt and income tax payable. While average assets are the average of total assets at beginning of the year and end of the year. These services charges are calculated at the end of the

period. For the interim practice, bank may levy approximately charges, which will be adjusted at the actual calculation.

[ii] Loan Certificates

These certificates are designed for such Muslims who want to avoid risk on their investments and desire to keep their savings in banks. Mudarba companies and banks, have designed certificates against these savings and utilize the funds for investments. Maturity of these certificates is defined and the face value of the certificate is guaranteed to reimburse. The lender, however is not entitled to a share in the profit and loss of these finances.

[ii] Benevolent Funds (Qard-e-hasana)

Qard-e-hasana is a loan which is returned at the agreed period without any interest or return or share in the profit and loss or any stringent repayment schedule. These are soft loans granted on compassionate grounds such as for medical treatment or to poor students to continue their studies. The bank may claim service charges to cover the cost of providing loans. These service charges do not relate to the sum lent. It is an absolute amount calculated after working out the actual cost in providing the loans.

[iv] Consumption Loans

The Islamic bank may provide consumption loans in catering for the needs of daily life. These consumption loans are not, directly productive. These loans influence

the productivity indirectly and stimulate aggregate production and supply. These loans are also provided on the welfare grounds to enhance the consumption level of the society up to a preferred level. Mannan (1986) has discussed the provision of consumption loans as a part of a government function through co-operative societies or credit agencies. Islamic banks currently use ways for financing the non-commercial loans, these are by way of lease financing and on hire-purchase basis.

Metwally (1994) devised a new method called 'the opportunity-cost project approach' for dealing with these loans. According to his idea the rate of profit or loss which should be charged to a household loan is the opportunity cost of the alternative loan which is not made because funds were diverted to the household loans. As he proposed, the loans on an opportunity cost basis will work as follows: the bank will provide information to the household about all projects, industries or business activities to which it advances loans on Mudarba basis and the past rate of profit or loss on these loans. The household borrower has to select one of the projects which he wishes the bank to treat him accordingly. The household would then be liable to comply with the profit and loss ratio of the chosen project. The household borrower will pay to the bank the amount of profit as realized by the chosen industry or project as accounted for his loan amount, if the specified project makes a loss, the bank will credit the household borrower with the amount of the loss.

{E} Insurance And Underwriting

Some of the Islamic banks undertake insurance as a subsidiary business of their organization. This insurance is a sort of co-operative insurance. The principle is that all the losses have to be borne by the participants (policy holders) on a mutual support (takaful) basis. The participants agree to pay instalment's to a fund managed by the Islamic bank for the "takaful" company. The bank or the "takaful" company acts as a management company. It admits participants, collects instalments, provides management services, invests the funds in the sharia legitimate projects and pays takaful benefits (Metwally 1994:124). In accordance to permissible limit of sharia, this principle is being applied to life insurance too. The procedure is that all the participants at the maturity of their policy get all that amount that they paid as premium plus the share in profit (Khan, Fahim 1983:268).

5. Contemporary Islamic Financial Institutions

Interest-free (Islamic) Financial Institutes (IFAs) have spread over many countries including non Muslim ones, developed and developing countries. It is difficult to identify all of these institutions because some of them are not registered as Islamic Banks, and not all of them are members of the International Association of Islamic Banks. Around 152 IFIs are reporting their statistics to the Association. Table 1 shows the geographical spread over and summary of the financial highlights of these IFIs.

Table 2 gives a summary of IFIs in various countries. At present, there are 125 IFIs working in different Muslim countries, while 27, are established in non-Muslim countries. Dar-al-Mal Islami and Al-Barkah Holding company own many subsidiaries

working in different countries. These two have interest also in some other institutions established as a separate entity. Table 3 briefly specifies the period over which some of the Islamic Financial Institutions were established in different countries, with the exception of Pakistan, Iran and Sudan. The data suggest that the movement started in the mid half of 1970s and reached its peak in mid 1980s. Thirty two institutions were established during 1980-85. This does not include the statistics of mushroom growth of IFIs in Pakistan, Iran and the Sudan. The movement of establishing interest-free banks and conversion of banking operations into the interest-free mode is still in progress. During the last five years, 23 IFIs were established in different countries, out of which 17 were established in Indonesia. Table 4 below gives some financial indicators of twenty nine selected Islamic Financial Institution.

A considerably good number of Islamic Financial institutions are working in several countries, particularly in the Muslim minority countries like India, and some are in Western countries. These types of institutions comprise, saving and loan associations, credit association, co-operative societies, co-operative funds. Some are performing other obligations of an Islamic co-operative credit system. One organization, named Muslim Community Co-operative Australia Ltd., (Melnourne), also offers some financial facilities according to Islamic principles. This started functioning in February 1989.

The interest-free financing techniques as currently adopted by the Islamic Financial Institutions in various countries may not be totally compatible with the Sharia. Working in different countries and in different socio-economic set-up, may put these institutions under various constraints when complying with their respective national laws. Furthermore, Interest-free techniques are relatively complex and diverse in nature,

as compared to conventional banking. This has pushed some Islamic Financial Institutions to adopt relatively easy financing techniques. Murabaha has become one of the most popular financing techniques among Islamic banks. It has been estimated that 70 to 80 percent of the total finance provided by the Islamic banks is through murabaha (Ahmed Ausaf 1995:28). Murabaha based operations are practiced by Islamic Financial Institutions under several names such as: mark-up, cost plus financing, production support program, short term financing or simply sales-purchase contracts.

Organization and Financial Structure of existing Islamic Banks

Most of the existing Islamic banks are joint stock companies. These banks may be divided into three broad groups:

1. Islamic banks belonging to some financial holding company. In this group are included the Islamic banks owned by the Dar al Mal Islami (DMI) and Al-Barakah group. The DMI is an umbrella organization of several companies, organized as a trust under the laws of Bahamas. It was established in 1981 with an authorized capital of US $ 1,000 million out of which US $ 310 million have been paid. The, Faisal Islamic Bank of Guinea, Niger and Senegal are subsidiaries of DMI which holds 40% share in Faisal Islamic Bank of Sudan and in some other Faisal Banks.

2. Other Islamic banks established by private or semi-government initiative. Like Nasser Social bank Cairo and some banks in Pakistan.

3. In some cases, the governments have also subscribed to the capital of the Islamic Banks, for instance, in case of Bahrain Islamic Bank, the major portion of the capital is shared as follows: Kuwaiti government 17.4%, Bahrain government 10.4%, the Islamic Development Bank 13.0%, the Kuwait Finance House 8.7%, the Dubai Islamic Bank 4.4% and private shareholders 3.7%. In some cases, the religious bodies and Governments have subscribed most of the capital. In case of the Bank Islam Malaysia, the percentage shares are: the government contributed 37.5%, Pilgrim's Management Fund 10%, Muslim Welfare Organizations of Malaysia 5%, State Religious Councils 17%, State Religious Agencies 6%, and Federal Agencies 12%.

The Islamic Development Bank (Jeddah), is an international financial institution. The main purpose of the creation of this bank is to foster the economic development and social progress of the member Islamic Dinars (US $ 2515.6 million). The Islamic Development bank participates in the equity capital, grants loans and provides assistance for economic and social development to member countries. It assists the member countries in promotion of foreign trade with other member countries. Islamic Development bank provides assistance in promoting trade particularly for trade of capital goods, and also provides technical guidance to Muslim countries in establishing their financial and banking activities in line of the recommendations of Sharia.

6. Conclusions

- Interest-free Islamic banks were established to conform with Islamic laws (Sharia) which prohibits interest on all types of transactions irrespective of the parties involved in such transactions.

- It is possible to establish and operate anywhere financial institutions which work on a profit/loss share basis rather than an interest-based rate of return.
- Profit maximization is not the sole objective of Islamic banks. These banks are responsible for wider social welfare of Muslims worldwide.
- Islamic banks use the same tools and procedures as traditional (i.e. interest-based) banks in those areas where there is no conflict between banking operations and Islamic principles. These activities include foreign exchange transactions, domestic and international transfers, letters of credit and availing safe custody.
- Islamic banks have devised (and are still devising) new instruments to enable them to achieve their objectives in accordance with Islamic Laws. These tools of finance include Musharaka, Mudaraba, Mirabaha, Baa'ye Salam, Baa'ye Muajjal, Ijara and Ijara-wa-Iktina.
- Islamic banks offer a number of accounts that suit their depositors and comply with the profit/loss sharing principles. These products include current accounts, saving accounts, investment accounts and joint investment accounts. Islamic banks also offer Islamic bonds and securities which carry no interest. Moreover, various types of interest-free non-commercial loans based on the profit/loss sharing principle are also available.
- Interest-free Islamic Financial Institutions (IFIs) have spread over in many countries including non-Muslim developed and developing countries. Over 150 IFIs are members of the International Association of Islamic banks. The movement of establishing interest-free banks and conversion of banking operations into the interest-free mode is still in progress. During the last five years, 23 IFIs were established in different countries, out of which 17 were established in Indonesia alone.

- Morabaha has become one of the most popular financing techniques among Islamic banks. It has been estimated that 70 to 80 percent of total finance provided by Islamic banks is done through Morabaha. These operations are practiced by Islamic Financial Institutions under several names such as mark-up, cost plus financing, production support program, short-term financing or simply sales-purchase contract.

Chapter Four

A Study of the Commercial Loans Market in a Dual Banking System: A Simultaneous Equations Model

Abstract

This chapter develops and tests simultaneous equations models to find out if the profit/loss sharing principle adopted by Islamic (interest-free) banks, operating side-by-side with conventional (interest-based) banks, has any significant effect on the commercial loans market. A demand-supply model has been estimated using time series data for conventional and Islamic banks during the period 1980-1995.

The regression analysis suggests that the price of loans charged by Islamic banks do not exert any significant influence on the demand for commercial loans of the customers of conventional banks. However, the demand for funds offered by Islamic banks is positively correlated with the rates of interest charged by conventional banks operating within the dual banking system. The results also suggest that deposits exert a much stronger influence on the supply of loans by Islamic banks than by non-Islamic banks.

A Study of the Commercial Loans Market in a Dual Banking System: A Simultaneous Equations Model

Introduction

Many countries, all over the world, currently experience what has become known as a "dual banking system" where interest-free banks operate side by side with conventional banks. The borrowers have the option to deal with any of these banks. If they choose to transact with an Islamic bank, they would have to obtain funds on a profit/loss sharing principle either through a partnership (Musharaka) or joint investment with no participation in management (Mudaraba) a resale contract (Murababa). If, on the other hand, borrowers choose to deal with conventional banks, they will pay fixed (or variable) interest.

The aim of this chapter is to study the main determinants of the supply of commercial loans and demand for these loans within a dual banking system. The chapter is divided into four sections. Section one offers a brief theoretical discussion of the commercial loans market in a dual banking system. Section two develops demand-supply models that can be tested using simultaneous equation systems. The regression results are reported in section three. Finally, section four summaries the main findings of the subject.

Musharaka) where both parties contribute to the capital of the project and agree to divide the net profit in proportions determined in advance. Islamic lending need not be with participation in management. Under the "Mudaraba" method the bank provides the capital and the client is fully responsible for management. In consideration, the partner gets an agreed proportion of the net profits. In the case of loss resulting from normal business activities, the bank bears all the losses and the client looses only the profit that would have been the reward of his effort. If the purpose of borrowing is to purchase a durable (e.g., a car) this can be done through a resale contract or what is known as "Morabaha" where the client requests the bank to buy the specific commodity. The bank resells the commodity at a price which covers the purchase price plus the profit margin agreed upon by both parties, which transforms traditional lending into a sale and purchase agreement. To borrow for the purpose of purchasing a house, the bank buys the house and rents it to the client. This procedure can be converted into a reduced renting procedure whereby the customer, by paying every year an instalment of the value of the house, reduces the rent till the house is fully owned by the borrower and the rent is eliminated. Metwally's "opportunity cost approach" is used by some banks to finance personal loans (Metwally, 1994).

II

A Simultaneous Equations Model for Commercial Loan Market in a Dual-Banking System

The commercial loans market, like any other market, is cleared through equilibrium of demand and supply. This section builds a demand-supply model to investigate the behaviour of the market in a dualistic economy where commercial banks operating on conventional lines compete with Islamic banks which use the profit/loss sharing method of finance. Because Islamic banks do not deal in interest, they have no alternative other than investing in interest-free assets. These banks, therefore, have a limited scope of finance (Wilson, 1985). The conventional banks on the other hand, are able to invest in various types of securities (e.g., government banks) if the return (in terms of interest) on these securities is relatively more attractive than the return on commercial loans.

The above suggests that the supply function of the commercial loans of conventional banks will be different from that of the Islamic (interest-free banks). For the interest-based banks we can think of the following function:

$$S_c = \phi_1(r_c, r_s, D) \qquad (1)$$

where:

S_c = Supply of commercial loans of conventional banks.

r_c = average rate of interest charged by commercial banks operating in a dual-banking system.

r_s = average rate of interest on securities.

D = an index of deposits.

The supply function of commercial loans by Islamic banks may be represented by

$$S_I = \phi_2(\pi, D) \qquad (2)$$

where

S_I = supply of commercial loans by Islamic banks.

π = average profit/loss share on the Islamic banks transactions (Musharaka, Modaraba, and Morabaha)

D = an index of deposit.

The deposit index is introduced in the supply function on the ground that the banks' ability to lend depends on the availability of loanable funds in terms of deposits.

The demand function for commercial loans is assumed to depend on the charges (interest rate in the case of conventional banks and the profit/loss share in the case of Islamic banks). also, users of funds in a dual banking system, usually compare between the terms of the two types of banks. Therefore, the alternative rate of receiving the debt is expected to exert a significant influence on the demand for commercial loans on a dual-banking system. Also, the demand for commercial loans would depend on the borrowers' expectations regarding the growth of the economy. The more optimistic the borrowers are about the future profitability, the greater will be their demand for commercial loans. The rate of growth of GDP may be a good proxy variable to reflect borrowers' expectations. Thus, the demand function for commercial loans of both the traditional and the Islamic banks operating in a dualistic banking system may be expressed as:

$$D_C = \psi_1(r_c, \pi, \dot{Y}) \qquad (3)$$

$$D_I = \psi_2(r_c, \pi, \dot{Y}) \qquad (4)$$

where:

D_C = demand for commercial loans of conventional banks.

D_I = demand for commercial loans of Islamic banks.

$\dot{Y}$ = rate of growth of GDP

r_c and π as before.

We may thus, develop two simultaneous equation models for the commercial loan market in a dual banking system.

1. Conventional Banks

Supply: $$Q_t = a_0 + a_1 r_{ct} + a_2 r_{st} + a_3 D_t + \mu_1 \quad (5)$$

Demand: $$Q_t = b_0 + b_1 r_{ct} + b_2 \pi_t + b_3 \dot{Y}_t + \mu_2 \quad (6)$$

The above system of structural equations has the following variables:

Endogenous variables

Q_t = total commercial loans (billion of dollars).

r_{ct} = average prime rate charged by banks.

Predetermined variables

r_{st} = short-term government bonds rate (represents an alternate rate of return to banks).

D_t = total bank deposits (billions of dollars)

π_t = the profit/loss rate of return

$\dot{Y}_t$ = rate of growth of GDP (represents expectations about future economic activity)

The above system has two equations and two endogenous variables. Hence it is mathematically complete.

2. Islamic Banks

Supply: $L_t = \alpha + \alpha_1 \pi_t + \alpha_2 D_t + v_1$ (7)

Demand: $L_t = \beta_0 + \beta_1 \pi_t + \beta_2 r_{ct} + \beta_3 \dot{Y} + v_2$ (8)

The above system has the following variables.

Endogenous variables

L_t = total commercial loans (billion of dollars)

π_t = profit/loss rate or return

Predetermined variables

D_t = total bank deposits (billion of dollars)

r_{ct} = conventional banks' rate (represents the price of alternative financing to business).

$\dot{Y}$ = rate of growth of GDP (represents expectations about the future economic activity.

The above system is mathematically complete in the sense that it contains as many equations as it contain endogeneous variables.

We now need to examine the above system for identification. A necessary condition of identification of a given structural equation is that the number of predetermined variables excluded from the given equation is at least as large as the number of endogenous variables

included in the equation less one. This is known as the order condition for identification. (Kmenta, 1990). This rule is as follows: Let g be the number of endogenous variables in the system and k the total number of variables (endogenous and exogenous) missing from the equation under consideration. Then (Maddala, 1992):

If $k = g - 1$, the equation is exactly identified

If $k > g - 1$, the equation is over-identified

If $k < g - 1$, the equation is under-identified.

This condition is only necessary but not sufficient.

Let us apply his rule to the equation system of the conventional banks. We notice that for the two equations, $k = 6$ and $g = 2$. There are two variables excluded from each equation; thus $k > g - 1$ and hence both equations are over-identified.

As to the equation system of the Islamic banks, we notice that there are two variables missing in equation (7); thus $k > g - 1$ and the equation is over-identified. There is one variable missing in equation (8), thus $k = g - 1$ and the equation is just identified. Applying the rank conditions, we notice that each equation is identified. We may, therefore, use the method of Two-stage least squares to estimate the equations of each system (Intriligator, et. al. 1996).

III
The Regression Results

The above two systems were estimated using the two-stage least squares method (2SLS). The regression analysis covers 18 conventional banks and 12 Islamic banks operating in various Middle Eastern countries. Table 1 gives the estimates for the demand-supply model of the commercial loan market facing each type of financial institution.

The results in Table 4-1 suggest that all coefficients carry the expected sign. The coefficient of the variable r_{ct} has a positive sign in the supply function and a negative sign in the demand function. This coefficient is also statistically significant as suggested by the "t" value (in parenthesis under the coefficient). This suggests that interest rates charged by the conventional banks exert a strong negative influence over the demand for commercial loans and a strong positive influence over the supply of commercial loans by the conventional banks. The coefficient of the variable r_{st} is negative and statistically significant which suggests that the larger the alternative rate of interest on securities, the smaller the volume of commercial loans offered by conventional banks. The coefficient of the variables D_t and $\dot{Y}_t$ are positive and statistically significant implying that the banks will lend more if they can attract more deposits and the borrowers will be inclined to demand more commercial loans if they are more optimistic about the future economic activity.

The simultaneous equation system results, however, seem to support that the price of loans charged by Islamic banks does not exert a significant influence on the demand for

commercial loans by the customers of the conventional banks. This may suggest that the interest-free banks' charges do not differ much from the conventional banks' charges operating with a dual banking system.

The regression results for the Islamic banks also indicate that the coefficients of all variables carry the expected sign. Moreover, all coefficients are statistically significant beyond the 1 per cent level of significance. The profit/loss sharing rate exerts a strong positive effect on the supply of funds and a strong negative effect on the demand for funds. Expectations regarding future activity are also a very important determinant of the demand for funds offered by Islamic banks.

Perhaps the most striking result of the simultaneous equations' models is that related to the variable r_{ct}. The coefficient of this variable, which represents the alternative charge to users of Islamic banking, is positive and highly significant. This suggests that the demand for funds of Islamic banks is strongly influenced by the terms of borrowing of non-Islamic banks operating side-by-side. We have already seen that the opposite is not true. In other words, the clients of Islamic banks pay attention to interest rates charged by non-Islamic banks and this will increase the higher the rate of interest charged by conventional banks and vice versa. However, the demand for funds offered by conventional banks does not seem to be affected by the profit/loss sharing rate of the Islamic banks operating within a dual banking system, face difficulties in attracting deposits (Abdul Gader and Al-Ghahtani, (1990), Brown (1994), and Ray (1995).

Table 4-1: 2SLS Estimates for the Demand-Supply Model of the Commercial Loan Market

1. Conventional Banks

(i) Supply function

$Q_t =$	- 93.4	+ 2.348 r_{ct}	- 1.746 r_{st}	+ 0.246 D_t
	(-3.857)	(2.954)	(-2.583)	(2.981)

$R^2 = .914$, $F = 25.9$

(ii) Demand function

$Q_t =$	- 176.2	- 11.3 r_{ct}	+ 2.167 π_t	+ 137.9 $\dot{Y}_t$
	(-2.933)	(-3.544)	(1.746)	(3.321)

$R^2 = .825$, $F = 23.7$

2. Islamic Banks

(i) Supply function

$L_t =$	- 198.7	+ 3.120 π_t	+ .653 D_t
	(2.945)	(4.865)	(5.986)

$R^2 = .909$, $F = 21.3$

(ii) Demand function

$L_t =$	- 217.5	- 18.7 π_t	+ 3.212 r_{ct}	+ 168.9 $\dot{Y}_t$
	(-2.368)	(-5.117)	(3.088)	(3.815)

$R^2 = .914$, $F = 39.7$

Conclusions

The main conclusions of the chapter may be summarized in the following:

1. The commercial loans market within a dual banking system is represented by a demand-supply model which can be tested using a simultaneous equation model. However, each type of banking system (i.e., interest-based and interest-free banks) requires a different model since the mode of operation is completely different. Although there are many common variables, the supply function is highly distinguished in the two cases.

2. The commercial loans market in a dual-banking system is cleared through changes in the price of loanable funds. This price is represented by the rate of interest in the case of the conventional banks and the profit/loss sharing rate of return in the case of interest-free Islamic banks. The price has a negative effect on the demand for commercial loans and a positive effect on the supply of these loans.

3. The supply of commercial loans by conventional banks is influenced by the alternative rate of interest which these banks can obtain through investment in securities (government bonds, treasury bills etc.). This alternative does not exist for Islamic banks which do not deal in interest. Thus these banks are limited in their scope of finance.

4. Borrowing from both the conventional banks and the interest-free banks operating side-by-side is strongly affected by the expectation concerning the future level of activity. The demand for loanable funds, in a dual banking system is positively correlated with the rate of growth of GDP.

5. The demand for funds offered by Islamic banks is strongly influenced by the interest charges of the conventional banks operating side-by-side. However, the profit/loss sharing rate of the Islamic banks does not seem to exert any significant influence on borrowing from interest-based banks operating within the dual banking system. this suggests that customers used to the traditional methods of finance may not shift to the profit/loss sharing principle even if it was relatively cheaper to obtain funds on this principle.

Chapter Five

Financial Characteristics of Islamic and Non-Islamic Banks: A Discriminant Analysis

Abstract

This chapter uses discriminant analysis to test for structural differences between the financial characteristics of interest-free banks and conventional banks. The study covers a sample of 48 Middle Eastern banks, 12 of which are (Interest-free) Islamic banks. The analysis extends to a number of financial ratios which evaluate liquidity, leverage, performance, credit risks, profitability and efficiency. The two-group discriminant analysis suggests that the two groups of banks are differentiated in terms of liquidity, leverage and credit risk but not in terms of profitability and efficency.

Financial Characteristics of Islamic and Non-Islamic Banks: A Discriminant Analysis

Introduction

The analysis of the previous chapter suggests that Islamic banks use different methods of finance to those applied by traditional (interest-free banks). It is logical to enquire about the accounting and financial implications of the profit/loss sharing principle. In particular, we try in this chapter to answer the question: Do the financial dimensions of Islamic banks differ from those of traditional banks? To answer this question, we collected recent data on financial aspects of a number of Islamic and non-Islamic banks operating in Middle-Eastern countries. 20 financial ratios were calculated and subjected to discriminant analysis to find out which predictors discriminate between the two groups of banks.

This chapter is divided into four sections. Section one discusses the main properties of the sample. The methodology is outlined in section two. Section three gives the results of discriminant analysis while section four summarizes the main findings of the study.

{I} The Main Properties of the Sample

The sample for this study covers 48 commercial banks operating in the Middle East. 12 out of those banks are (interest-free) Islamic banks and 36 are (interest-based) traditional banks. The data cover the three years 1994-1996. All banks operating in that region were requested to supply information on their total assets and liabilities and details of these items as well as information on their operating income, employment, profit before tax, return on deposits and structure of their loans for the specified time period. It was possible to obtain useable data for only 48 banks. These data were used in calculating a number of financial ratios related to the structure and performance of commercial banks. Twenty ratios were calculated and subjected to statistical analysis. The theoretical foundation of this calculation is as follows:

First, we tried to test for structural differences between the two groups of banks in terms of the five financial dimensions suggested by Wood and Porter (1979), namely: liquidity, leverage, credit risk, profitabilty and efficiency.

Liquidity refers to the bank ability to meet deposit withdrawals, maturing liabilities and loan requests without delay. Three ratios are used in this chapter to reflect a bank liquidity status. These ratios are cash to assets {CA}; liquid assets to assets {LAA} and liquid assets to deposit liabilities {LAD}.

Leverage or capital adequacy refers to the bank's ability to absorb losses. If these losses are large to wipe out reserves and profit then the bank is in danger of becoming insolvent. This study use two ratios as an indication of leverage. These are equity to assets {EA} and assets to equity {AE}.

Credit risk analysis ratios were also used to assess the level of risk in the bank credit policies. Six ratios were used. These are Investment to assets {IA}, loans to assets {LA}, loans to deposit liabilities {LD}, fixed assets to assets {FAA}, earning assets to assets {EAA} and other assets to assets {OAA}.

We also used the ratio of personal loans to total loans {PLTL} as an indicator of risk analysis. Bank's profitability is measured by the four ratios; operating income to assets {OIA}, investment and deposit income rate {IDIR}, profit (before tax) to assets {PA} and profit (before tax) to equity {PE}. Efficiency is measured by two ratios: operating expenses to assets {OEA} and employee expenses to assets {EEA}.

Secondly, in order to test the hypothesis that the profit/loss sharing principle may have some impact on the bank's ability to attract deposits, we calculated the deposit to assets ratio {DA}. Also, to test the impact of the profit/loss sharing principle on the rate of return on deposits, we calculated this variable for the two groups of banks.

The appendix to this chapter lists the data for the 48 banks. The number 0 identifies a traditional bank, while the number 1 identifies an Islamic bank. Bank names are not disclosed to maintain confidentiality.

Some intuitive feeling for the comparisons may be obtained by examining the means and standard deviations of the 20 ratios for both Islamic and non-Islamic banks. These statistics are given in Table 5-1. The data in this table would seem to suggest that:

Table 5-1
Performance Ratios and Productivity Measures of Islamic and Non-Islamic Banks

Ratios	Islamic Banks		Traditional Banks	
	Mean (%)	S.D.	Mean (%)	S.D.
***A* Liquidity Ratios**				
[1] Cash to assets {CA}	6.771	1.310	4.738	0.531
[2] Liquid assets to assets {LAA}	49.929	3.048	34.394	2.581
[3] Liquid assets to deposit liabilities {LAD}	62.433	3.619	42.959	2.338
***B* Asset Structure Indicators**				
[4] Investments to assets {IA}				
[5] Loans to assets {LA}	38.376	3.447	24.570	1.564
[6] Loans to deposit liabilities {LD}	38.672	3.193	57.460	2.802
[7] Fixed assets to assets {FAA}	55.539	3.155	69.404	2.625
[8] Other assets to assets {OAA}	10.166	1.429	3.940	0.912
[9] Earning assets to assets {EAA}	3.303	0.731	3.290	0.499
[10] Assets to equity {AE}	91.617	1.799	91.928	1.153
***C* Liability Structure Indicators**	5.628	0.691	16.079	1.189
[11] Equity to assets {EA}				
[12] Deposits to assets {DA}	17.964	1.821	7.120	0.811
***D* Income Related Ratios**	61.883	2.361	77.036	3.563
[13] Operating income to assets {OIA}	8.126	0.292	8.050	0.325
[14] Investment & Deposit income rate {DIR}	5.524	0.369	5.559	0.379
***E* Expenses Related Ratios**				
[15] Operating expenses to assets {OEA}	5.875	0.405	5.258	0.636
[16] Employee expenses to assets {EEA}	1.853	0.205	1.736	0.149
***F* Profitability Indicators**				
[17] Profit before tax to assets {PA}	0.902	0.048	0.860	0.049
[18] Profit before tax to equity {PE}	9.496	0.804	14.407	0.839
***G* Other Ratios**				
[19] Return on deposits {RD}	8.220	0.327	8.111	0.339
[20] Personal loans to total loans {PLTL}	4.863	1.319	15.747	2.086

1. The two groups of banks are more widely separated in terms of the following ratios:
    - Cash to assets
    - Liquid assets to assets
    - Liquid assets to deposits
    - Investment to assets
    - Loans to assets
    - Loans to deposits
    - Fixed assets to assets
    - Assets to equity
    - Equity to assets
    - Deposits to assets
    - Profit (before tax) to equity
    - Personal loans to total loans

2. There appears to be close resemblance between the two group of banks in terms of the following ratios:
    - Earning assets to assets
    - Other assets to assets
    - Operating income to assets
    - Investment and deposit income rate
    - Operating expenses to assets
    - Employee expenses to assets
    - Profit (before) tax to assets
    - Return in deposits

3. There seems to be more variations in ratios amongst Islamic banks than amongst traditional banks. More sophisticated analysis was carried out using the technique of discriminant analysis.

{II} Methodology

This chapter uses discriminant analysis in studying the differences in the financial structure of interest-free (Islamic) banks and traditional (interest-based) banks. Discriminant analysis is a multivariate technique used to identify the relative importance of variables that indicate the respondents belong to the same or different group by analysing data with a categorical dependent variable and interval scaled independent variables (Malhotra, et. al, 1996).

Suppose we have n banks for which we have observations on k financial ratios and we observe that n_1 of them belong to interest-free banks and n_2 of them belong to traditional banks where $n_1 + n_2 = n$. We want to construct a linear function of the k variables that we can use to predict that a new observation belongs to one of the two groups. This linear function is called the linear discriminant function.

Let us define a linear function

$$Z = \lambda_0 + \sum_{i=1}^{k} \lambda_i x_i$$

then it is intuitively clear that to get the best discrimination between the two groups, we would want to choose the λ_i so that the ratio (Haddah, 1992):

$$\frac{\text{between} - \text{group variance of } Z}{\text{within} - \text{group variance of } Z} \text{ is a maximum}$$

Fisher (1936) suggested an anology between this problem and multiple regression analysis. He suggested that we define a dummy variable

$$y = \frac{n_2}{n_1 + n_2} \text{ if the observation belongs to the first group}$$

$$y = -\frac{n_1}{n_1 + n_2} \text{ if the observation belong to the second group}$$

If we estimate the multiple regression equation

$$y = \beta_o + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_k x_k + \upsilon$$

and obtained the sum of squares RSS, then

$$\hat{\beta}_i = \hat{\lambda}_i \frac{RSS}{n_1 + n_2 - 2}$$

Thus, once we have the regression coefficients and the residual sum of squares from the dummy dependent variable regression, we can very easily obtain the discriminant function coefficients (Maddala, 1992)

The technique can be generalized to more than two groups [Johnson & Nichern, 1982 and Joseph and Anderson, 1992], Mahotra et. al (1996) explained this derivation as follows:

Suppose there are G groups, i = 1, 2, ... , G, each containing n_i observations on k independent variables x_1, x_2 ..... , x_k and assume the following notations.

N = Total sample size = $\sum_{i=1}^{G} n_i$

Wi = Matrix of mean corrected sum of squares and cross-products for the ith group

W = Matrix of pooled within-groups mean correlated sum of squares and cross-products

B = Matrix of Between-groups mean corrected sum of squares and cross products

T = Matrix of total mean corrected sum of squares and cross-products for all the N observations (= W + B)

$\bar{x}_i$ = Vector of means of observations in the ith group

$\bar{x}$ = Vector of grand means of the N observations

λ = Ratio of between groups to within-group sums of squares

b = Vector of discriminant coefficients or weights

then

$$T = \sum_{i=1}^{G} \sum_{j=1}^{n_i} (x_{ij} - \bar{x})(x_{ij} - \bar{x})'$$

$$Wi = \sum_{j=1}^{n} (xij - \bar{x}_i)(xij - \bar{x}_i)'$$

$$W = W_1 + W_2 + W_3 + \ldots + W_G$$

$$B = T - W$$

Define the linear composite $D = b_i' x$ or

$$D = b_0 + b_1x_1 + b_2x_2 + \ldots + b_k x_k$$

where D = discriminant score

b's = discriminant coefficients or weights

x's = predictor or independent variables.

Then with reference to D, the between-groups and within groups sums of squares are, respectively, given by $b_i' B\ b$ and $b_i' Wb$. In order to maximally discriminate between the groups, the discriminant functions are estimated to maximise the between-group variability. The coefficients b are calculated to maximise λ , by solving

$$\text{Max } \lambda = \frac{b'Bb}{bWb}$$

Taking the partial derivative with respect to λ and setting it equal to zero, with some simplifications, yields

$$(B - \lambda W)b = 0$$

To solve for b, it is more convenient to pre-multiply by W^{-1} and solve the following characteristic equation:

$$(W^{-1} B - \lambda I) B = 0$$

The maximum value of λ is the largest eigenvalue of the matrix $W^{-1}B$ and b is the associated eigenvector (Malhotra et. al., 1996). The elements of b are the discriminant coefficients, or weights, associated with the first discriminant function. In general, it is possible to estimate up to smaller of G - 1 or k discriminant functions, each with its associated eigenvalue. The discriminant functions are estimated sequentially, i.e., the first discriminant function exhausts most of the between-group variability. The second function maximises the between-group variation that was not explained by the first one, and so on.

{III} Discriminant Analysis Results

Table 5-2 gives the discriminant analysis results. The pooled within-groups correlated matrix, which is computed by averaging the separate covariance matrices for all groups, indicates low correlations between the predictors. Multi-collinearity is unlikely to be a problem.

The values of Wilks'λ or the U Statisitic, as is sometimes called, which represents the ratio of the within-group sum of squares to the total sum of squares, together with the significance of the Univariate F ratios indicated that when the predictors are consided individually, 15 financial ratios out of the 20 ratios considered, significantly differentiate between Islamic banks and non-Islamic Banks. These five ratios which do not seem to separate the two groups of banks are the earning assets to assets ratios, the investment and deposit income rate, the other to assets to assets ratios, the operating income to asset ratio and the return on deposits.

Because there are two groups, only one discriminant function function is estimated. The eigenvalue associated with this function is extremely large (153.2342). This value represents the ratio of between-group to within-group sums of squares (Lachenbrunch, 1975) and accounts for 100% of the explained variance. The cannonical correlation associated with this function is .9968. The square of this correlation (.9968)2 = .9936 indicates that 99.36% of the variance in the dependent variable (difference in type of banking) is explaind or accounted for by this model.

Table 5–2 Results of Two-group Discriminant Analysis

Pooled within-groups correlation matrix

	AE	CA	DA	EA	EAA	EEA
AE	1.00000					
CA	-.00136	1.00000				
DA	.22196	.02734	1.00000			
EA	-.18939	.03107	-.28637	1.00000		
EAA	-.07171	-.00824	.11538	-.31596	1.00000	
EEA	-.26912	.06393	.08534	-.02549	.03202	1.00000
FAA	.15368	.33976	-.14943	-.04761	.10703	.11055
IA	-.17809	.11331	.01668	.11321	-.19043	-.12312
IDIR	.13169	-.07655	-.05027	.25947	.07718	.00211
LA	.26311	-.20299	-.27501	-.07266	.06415	.01393
LAA	-.22621	-.23685	-.10178	.25794	-.04394	-.08920
LAD	-.13453	-.29386	-.04199	.08828	-.12430	-.24286
LD	-.09506	-.02804	-.17267	-.06643	.01316	.25526
OAA	.04833	.10950	-.04881	.03159	.04014	.16304
OEA	-.17065	.09469	-.16310	-.20571	-.09238	.05964
OIA	.14867	-.09010	-.24166	-.06596	-.05157	.05475
PA	-.02044	-.02329	.17791	-.17885	-.05752	-.10102
PE	-.17751	.35886	-.05314	.06120	-.00941	.20053
PLTL	-.22790	.08974	-.12741	.11848	.04870	-.08511
RD	-.08621	-.20156	-.12191	.08210	-.21284	-.01881

	FAA	IA	IDIR	LA	LAA	LAD
FAA	1.00000					
IA	-.00819	1.00000				
IDIR	.10200	.11382	1.00000			
LA	.08599	-.31468	-.07780	1.00000		
LAA	.06831	.14729	.07786	-.10598	1.00000	
LAD	-.14262	.31421	.18437	.03456	.44908	1.00000
LD	.04359	.00845	-.04519	-.22522	.06380	-.12562
OAA	-.13724	-.33034	-.16972	.13106	-.09553	-.07264
OEA	.26952	.07812	-.08959	-.08212	.09565	.08251
OIA	-.03003	.03132	-.23142	.11567	.02128	-.25740
PA	-.02100	.20081	-.10485	-.09774	.23641	.26509
PE	.17727	-.14724	-.31216	.02838	-.06603	.03882
PLTL	-.15391	.00078	-.05371	-.11006	-.01215	-.17717
RD	-.09845	.11616	.02890	-.17645	.04090	-.00009

	LD	OAA	OEA	OIA	PA	PE
LD	1.00000					
OAA	.02577	1.00000				
OEA	-.06560	-.02660	1.00000			
OIA	.17513	.02193	.03881	1.00000		
PA	-.10230	.02472	.13065	-.09479	1.00000	
PE	-.09676	.18002	.02524	-.20808	.03406	1.00000
PLTL	.16353	-.03496	-.25321	.05915	-.15985	.00146
RD	.14946	-.02338	.01234	.18794	.17354	-.13929

	PLTL	RD
PLTL	1.00000	
RD	.08287	1.00000

Table 5–2 Results of Two-group Discriminant Analysis *(...contd.)*

Wilks' Lambda (U-statistic) and univariate F-ratio with 1 and 46 degrees of freedom

Variable	Wilks' Lambda	F	Significance
AE	.05270	826.8948	.0000
CA	.43612	59.4768	.0000
DA	.19657	188.0087	.0000
EA	.05319	818.7861	.0000
EAA	.98951	.4877	.4885
EEA	.90882	4.6151	.0370
FAA	.12881	311.1083	.0000
IA	.11199	364.7604	.0000
IDIR	.99831	.0778	.7815
LA	.10854	377.8005	.0000
LAA	.13376	297.9046	.0000
LAD	.08946	468.1947	.0000
LD	.16834	227.2536	.0000
OAA	.99989	.0053	.9425
OEA	.82352	9.8576	.0030
OIA	.98906	.5089	.4792
PA	.87791	6.3970	.0149
PE	.12758	314.5643	.0000
PLTL	.13846	286.2166	.0000
RD	.97987	.9450	.3361

Canonical Discriminant Functions

Fcn	Eigenvalue	Pct of Variance	Cum Pct	Cannonical Corr	After Fcn	Wilks' Lambda	Chi-square	df	Sig
					0	.006484	181.385	20	.0000
1*	153.2342	100.00	100.00	.0068					

* Marks the 1 canonical discriminant functions remaining in the analysis.

Standardized canonical discriminant function coefficients

	Func 1
AE	.35078
CA	-.17387
DA	.37425
EA	-.39797
EAA	-.07250
EEA	-.31621
FAA	-.58959
IA	.19614
IDIR	.56098
LA	.61907
LAA	.28632
LAD	-.68158
LD	.44694
OAA	-.09428
OEA	.37799
OIA	-.13406
PA	-.10534
PE	.99315
PLTL	.23211
RD	.42781

Table 5–2 Results of Two-group Discriminant Analysis *(...contd.)*

Structure matrix:

Pooled within-groups correlations between discriminating variables and canonical discriminant functions (Variables ordered by size of correlation within function)

	Func 1
AE	.34251
EA	-.34082
LAD	-.25772
LA	.23151
IA	-.22748
PE	.21125
FAA	-.21009
LAA	-.20558
PLTL	.20151
LD	.17956
DA	.16332
CA	-.09186
OEA	-.03740
PA	-.03013
EEA	-.02559
RD	-.01158
OIA	-.00850
EAA	.00832
IDIR	-.00332
OAA	-.00086

Unstandardized canonical discriminant function coefficients

	Func 1
AE	.3217174
CA	-.2198511
DA	.1128858
EA	-.3500509
EAA	-.0542488
EEA	-1.9225838
FAA	-.5567866
IA	.0904309
IDIR	1.4903505
LA	.2134829
LAA	.1060339
LAD	-.2524310
LD	.1618612
OAA	-.1674235
OEA	.6412124
OIA	-.4219243
PA	-2.1456875
PE	1.1954179
PLTL	.1202622
RD	1.2730930
Constant	-46.6005185

Canonical discriminant functions evaluated at groups means (group centroids)

Group	Func 1
0	6.99641
1	-20.98924

Table 5–2 Results of Two-group Discriminant Analysis *(...contd.)*

Classification results –

Actual Group	No. of Cases	Predicted Group Membership 0	1
Group 0	36	36 100.0%	0 .0%
Group 1	12	0 .0%	12 100.0%

Percent of "grouped" cases correctly classified: 100.00%

Classification processing summary

48 (Unweighted) cases were processed.
0 cases were excluded for missing or out-of-range group codes.
0 cases had at least one missing discriminating variable.
48 (Unweighted) cases were used for printed output.
48 cases were written into the working field.

We notice that Wilks' λ statistic associated with the estimated discriminant function is .006484 which transforms to a Chi-square of 181.385 with 20 degrees of freedom. This is significant beyond the .00001 level. Thus the null hypothesis is rejected indicating significant discrimination (Morrism, 1969)

An examination of the absolute magnitudes of the standardized canonical discriminant function coefficients gives some idea of the relative importance of the predictors in discriminating between the groups. Generally, predictors with relatively large standardized coefficients contribute more to the discriminating power of the function, as compared with predictors with smaller coefficients (Klecha, 1980). Given the low intercorrelations between the predictors we would conclude that the ratios: profits to equity; liquid assets to deposits; loans to assets; fixed assets to assets and investment and deposit income rate are the most important predictors in discriminating between the two groups of banking. The same observation is obtained from examination of structure correlations. These simple correlations between the predictors and the discriminant function are listed in order of magnitude. The unstandardized discriminant function coefficients are also given.

The group centroids, giving the values of the discriminant function evaluated at the group means are also shown. Group 0, which represents the traditional banks has a positive value, while group 1 which represents Islamic banks has a negative value. The signs of the coefficients of the ratios: cash to assets, equity to assets, fixed assets to assets and liquid assets to deposits are large and negative. This seems to support available evidence that Islamic banks tend to hold a relatively higher proportion of their assets in liquid forms (Abdel-Gader and Ghahtain, 1990). Also, Islamic banks hold a

higher proportion of equity to assets than non-Islamic banks. (Ray, 1995) and Islamic banks seem to find difficulties in attracting deposits (Metwally, 1993). Moreover, these (Islamic) banks seem to be very cautious in lending funds and thus have excess liquidity (Metwally, 1993). Moreover, they invest more extensively than traditional banks in fixed assets. The coefficients with positive sign suggest that traditional banks enjoy a relatively higher return on equity (because equity as a proportion to assets is much lower in the case of these banks than in the case of Islamic banks); lend more especially in terms of personal loans (Brown, 1994) and attract relatively more deposits than Islamic banks. (The coefficients of the ratios of deposits to assets and loans to deposits are positive and large in magnitude).

The above results can be analyzed in terms of the five financial dimensions suggested by Wood and Porter (1979), namely: liquidity, leverage, credit risk, profitability and efficency. The discriminant analysis results suggest that the two types of banks (Islamic and non-Islamic) are differentiated in terms of liquidity, leverage and credit risk but not in terms of profitability and efficiency. We note that the discriminant function coefficients for the ratios PA (profits to assets), RD (return on deposits) which measure profitability, are too small. The same conclusion would seem to hold for the two ratios EEA (employee expenses to asssets) and OEA (operating expenses to assets) which measure efficiency. Also, the income related ratios OIA (operating income to assets) and IDIR (investment and deposit income rate) have very small coefficients in the structure matrix.

Table 2 also gives the classification results based on the analysis sample. The hit ratio or the percentage of cases correctly classified is 100%. This is not surprising given

the fact that the two types of banks are extremely different in their mode of operation. It would be difficult, therefore, to misclassify a traditional bank for an Islamic bank although it should be noted that most traditional banks in the Middle East have a section or centre that operates (so it is claimed) on profit/loss sharing basis. However, the role of such units is very minor.

Conclusions

The main findings of this chapter may be summarized in the following:

1. A simple examination of the means and standard deviations of 20 financial ratios suggests that Islamic banks are seperated from traditional banks in terms of 12 ratios and show simularity in terms of the other eight ratios.

2. When the predictors are considered individually, 15 financial ratios out of the 20 ratios considered, significantly differentiate between Islamic banks and non-Islamic banks. These five ratios which do not seem to separate the two groups of banks are the earning assets to assets ratio, the investment and deposit income ratio, the other assets to assets ratio, the operating income to assets ratio and the return on deposits.

3. The discriminant function applied to the data seems to be a good fit. The cannonical correlation associated with this function is .9986 which indicates that 99.36% of the variance in the dependent variable (difference in the type of banking) is explained or accounted for by the model.

4. The null hypothesis of no discrimination between the two type of banks is rejected at a significant level beyond .00001 level.

5. Discriminant analysis results suggest that the two type of banks are differentiated in terms of liquidity, leverage and credit risk but not in terms of profitability or efficiency.

6. It would be very difficult to wrongly classify a bank in some group (e.g. interest-free banks) into the other group (interest-based) banks. The hit ratio for our sample is 100%.

Chapter Six

Client's Choice of Interest-Free Banking : Logit and Probit RegressionAnalysis

Abstract

This chapter uses the logit and probit regression analysis to model the decision as to whether a client in a society with a dual banking system chooses to deal with a conventional bank or an Islamic bank. The analysis is based on data collected from three Middle Eastern Countries namely Egypt, Saudi Arabia and the United Arab Emirates. The results suggest that the more people adhere to Islamic teachings, the higher the proportion of clients which deals with Islamic banks. The results also suggest that Age, income and occupation are important factors in deciding which banking system to choose. The level of education seems to exert some influence on the decision to select a particular banking system only in some countries. The older the client, the higher the probability that he or she will choose to deal with an Islamic bank. Income has a strong negative on this probability. Also, the increase in the number of public servants, increases the probability of dealing with Islamic banks. Only in the case of Egypt, does there seem to be a negative relationship between the level of education and the probability of selecting an Islamic bank.

Client's Choice of Interest-Free Banking :

Logit and Probit Regression Analysis

Introduction

Most research on Islamic banking has focused on differences in the methods of finance and variations in the performance of interest-free banks and traditional banks. It appears that no attempt has been made to model the decision as to whether a client in a society which has a dual banking system chooses to deal with a conventional bank or an Islamic bank. It is not known whether the socio-economic characteristics of the client has any bearing on this selection. More importantly, it would be useful to learn if the probability that a client chooses to deal with an Islamic bank increases or decreases with changes in such variables as age, income, level of education and job.

This chapter uses logit and probit regression analysis to model the decision to deal with a traditional or Islamic bank in a society which has a dual banking system. The chapter is divided into five sections. Section one lays the theoretical foundation of the study. The main characteristics of the sample used in the analysis are discussed in section two. Section three briefly reviews the logit and the probit models. The regression results are given in section four, while section five summarizes the main findings of the chapter.

I Some Theoretical Discussion

It is well known that interest-free banks came to exist for religious reasons. As discussed previously, Islam prohibits payment and receipt of interest on any type of transaction irrespective of the parties involved. Because banks play an important role in modern economies, it was imperative to look for an alternative to traditional banking interest-based methods of finance. Hence, the concept of profit/loss sharing and the emergence of Islamic (interest-free) banks.

The establishment of Islamic banks during the seventies and early eighties was facilitated by the availability of funds during The Oil Boom following the embargo in late 1973. Also, the Revolution in Iran and the move towards "more Islamisation" in various countries created a better environment for the growth of interest-free banks. As we have seen before, some countries have converted their whole banking system into Islamic banks. These include Iran, Pakistan and the Sudan.

The above discussion suggests that the more strict an individual is regarding religion, the higher the probability that he (she) will select an interest-free bank for his (her) banking needs. Although, it is not that easy to assess the degree of adherence to religion, it is expected that the scope of civil laws, traditions, and style of life would have strong effects on religious tendencies. Therefore, it may be possible to measure the adherence to religion in an ordinal way. Thus, Saudi Arabia is relatively more strict in its adherence to Islamic teachings than other members of the Gulf Cooperation Council [GCC] and Iran is more strict than other Asian Countries.

Socio-economic characteristics also play an important role in shaping one's beliefs. For example, the older the person gets, the more likely he (she) thinks of life after death. Also, the higher the level of education, the greater the degree of sophistication in thinking about religious factors. Moreover, businessmen are usually more occupied with day-to-day decisions and material aspects of life. Furthermore, poorer Muslims believe that they usually have greater hope for better rewards in the Hearafter than in this life.

The above suggests that the decision as to whether a client elects to deal with a conventional bank or an Islamic bank may be affected by such socio-economic variables as age, income, education and occupation. To test this hypothesis, information was collected from people of various Middle Eastern countries which currently operate a dual banking system i.e., the clients have the choice to bank with traditional (interest-based) financial institutions or Islamic banks. This information focus on the socio-economic characteristics of the clients. The effect of these characteristics on the selection of a particular banking system was then analysed using both the logit and the probit models.

II The Sample

The sample for this study is based on three surveys conducted in Egypt, Saudi Arabia and the United Arab Emirates. 385 persons in the capital city of each country were asked by telephone whether they deal with Islamic or a traditional bank. The sample size was determined using 95 percent confidence level; 0.05 level of precision and 0.5 population proportion. Thus, we have:

$$n = \frac{(.5)(.5)(1.96)^2}{(0.05)^2} \simeq 385$$

This sample size reflects the maximum possible variation in the population. The respondents were selected at random using the table of random numbers and the telephone directory. When a number did not reply or the respondent indicated that they do not deal with any bank, the next number in the directory was contacted. The respondents were asked to indicate their age, level of education, monthly family income and the type of job they occupy. Both the age and income variables were recorded as given. Three educational levels were distinguished: no education or primary education, intermediate education (school level) and higher education (university degree). The respondents were also classified according to whether they were employees or self-employed.

The basic characteristics of the three samples are given in Table 1, 2 and 3. Out of the 385 respondents in each case, only 40 clients (10.4%) dealt with Islamic banks in Egypt; 148 (38.4%) in Saudi Arabia and 75 (19.5%) in the UAE. Thus the proportion of population which elects to deal with interest-free banks is much higher in Saudi Arabia then in the other two countries. Also, the proportion of the UAE Population which deals with Islamic banks is higher than in Egypt. These variations may be explained by the degree of adherence to Islamic teachings. Saudi Arabia is relatively more strict than other Arab countries. It must however, be stressed that Saudi Arabia's main Islamic financial institution (Al-Rajhi Company) has a large number of branches which offer all variety of services at convenient hours of business. The same story does not seem to hold in the case of the other two countries.

The data in Tables 1-3 would seem to suggest that:

1. The mean age of those clients which deal with Islamic banks (group 1) is higher than that of the clients which deal with traditional banks (group 0). This seems to hold for all three countries surveyed. However, the standard deviation seems to be much higher in the case of Egypt than in other countries.
2. There is no much difference between the mean values of the education levels of persons dealing with Islamic banks in Saudi Arabia and the UAE but the mean value of those who deal with Islamic banks in Egypt is much smaller than that of those who deal with traditional banks.

3. The mean income of persons dealing with Islamic banks seems to be smaller than that of those who deal with traditional banks in all three countries. The standard deviation is much larger in Saudi Arabia and the UAE.

4. A smaller number of self-employed persons and business people select to deal with Islamic banks than the number of employed persons. This seems to hold true for all three countries. Moreover, the standard deviation does not seem to differ much between the three countries.

5. As expected, the average monthly income in Egypt is much lower in Egypt than in Saudi Arabia and the UAE. Also, the average monthly income in the UAE is greater than that in Saudi Arabia.

6. The level of education in the Egyptian sample is, an average, higher than those in Saudi Arabia and the UAE.

III The Models

Since the aim is to model the decision as to whether a customer should deal with a traditional bank or an Islamic (interest-free) bank, the dependent variable in this case takes the value of 0 (if the customer uses the services of a conventional bank) or 1 (if the customer chooses an Islamic bank). If an ordinary model is used in such cases, there is no assurance that the predicted value will be 0 and 1. (Maddala, 1993). To make sure that such a situation does not arise, the following functional form (known as the logistic curve) is commonly adopted:

$$\ln\left[\frac{P}{1-P}\right] = \alpha + \beta X + \mu$$

where P is the value of the dependent variable between 0 and 1. This model is more commonly known as the logit model (Kramer, 1991).

Solving this equation for P (by first exponentiating both sides) we get (Ramanathan, 1992)

$$P = \frac{1}{1 + e^{-(\alpha+\beta\chi+\mu)}}$$

It is easy to see that if $\beta>0$, then P takes the value 0 when $X = -\infty$ and 1 when $X = \infty$. Thus P can never be outside the range [0, 1]. The marginal effect of X on P is calculated by taking the partial derivative of P with respect to X. The estimated marginal effect is given as follows:

$$\frac{d\hat{P}}{dX} = \frac{\hat{\beta}e^{-(\hat{\alpha}+\hat{\beta}X)}}{[1+e^{-(\hat{\alpha}+\hat{\beta}X)}]^2} = \hat{\beta}\hat{P}(1-\hat{P})$$

The parameters of the logit model, where P=0 or P=1, are estimated using the maximum likelihood method (Aldrich and Nelson, and Demaris, 1992)

The decision whether to deal with an Islamic bank or a conventional bank can also be analysed using what is known as the Probit model. The assumption underlying probit analysis is that there is a response function of the form:

$$Y^*_t = \alpha + \beta X_t + \mu_t$$

Where X_t is observable but where Y^*_t is an unobservable variable. What we observe in practice is Y_t, which takes the value of 1 if $Y^*_t>0$ and 0 if otherwise (Ramanathan, 1992). We thus have:

$$Y_t = 1 \text{ if } \alpha + \beta X_t + \mu_t > 0$$

$$Y_t = 0 \text{ if } \alpha + \beta X_t + \mu_t \leq 0$$

If we denote by F(z) the cumulative distribution function of the normal distribution, that is, $F(z) = P(Z \leq z)$, then

$$P(Y_t = 1) = P(\mu_t > -\alpha - \beta X_t)$$

$$= 1\text{-}F\left(\frac{-\alpha - \beta X_t}{\sigma}\right)$$

$$P(Y_t = 0) = P\left(\mu_t \leq -\alpha - \beta X_t\right)$$

$$= F\left(\frac{-\alpha - \beta X_t}{\sigma}\right)$$

The joint probability density of the sample of observations (the likelihood function) is therefore given by:

$$L = \prod_{Y_t=0} F\left(\frac{-\alpha - \beta X_t}{\sigma}\right) \prod_{Y_t=1} \left[1 - F\left(\frac{-\alpha - \beta X_t}{\sigma}\right)\right]$$

The parameters α and β are estimated by maximising the above expression. The likelihood function above is concave, i.e. does not have multiple maxima (Pratt, 1981). Hence, any starting value of the parameters will be acceptable for the iterations.

The estimates of the parameters from the two methods (the probits and the logits) are not directly comaprable (Maddala, 1992). Amemiya (1981) suggests that if we multiply the logits estimates by 0.625 we will obtain a close approximation between the logistic and the distribution function of the standard normal.

IV Regression Results

The regression results of the logit and the probit models for the three samples are shown in Table 6-1 (with t-statistics in parenthesis). The dependent variable being the probability of dealing with an Islamic bank. These results suggest the following:

1. Age has a very strong positive effect. Thus, the older the person, the higher the possibility that he or she will bank with an interest-free (Islamic) bank. Older people adhere more to religion than younger persons. Hence, they tend to observe Islamic teachings about interest or Riba.

2. Income has a strong negative effect. Thus, the higher the income, the lower the probability of dealing with an Islamic bank. Poorer persons tend to be more religious than richer people. Also, poorer persons tend to borrow heavily to purchase durables. It is easier to do so using the Morabaha method of finance offered by Islamic banks.

3. The coefficient for education is insignificant in both Saudi Arabia and the UAE, but that coefficient is significantly positive (at the 5 percent level of significance) in the case of Egypt. The effects of traditions may over shadow that of education in the Gulf countries. However, the results of Egypt suggest that the higher the level of education the lower the probability of dealing with an Islamic bank.

4. The coefficient of the occupation variable is negative and statistically significant in all cases. Since this variable takes the value of 0 if the person is an employee and the value of 1 if he/she is self-employed, (e.g. businessmen, professional), this result suggests that the more independent the person in deriving its income, the lower the probability that it will bank with an Islamic bank. Employees can obtain funds from interest-free banks on Morabaha basis through transferring their salary to the bank as a collatory. The bank deducts directly the repayment instalment. This method of finance does not suit too much business persons and professionals who do not have a stable flow of periodical income (monthly or fortnightly). Also, many business persons are accustomed to borrowing at fixed interest charges, and may resist the principle of Musharaka which involves participation in management.

Table 6-1

Summary of the Logit and Probit Analysis

Variables	Egypt		Saudi Arabia		UAE	
	Logit	Probit	Logit	Probit	Logit	Probit
Constant	-5.589 (-2.258)	-2.817 (-2.182)	-9.912 (-4.497)	-5.668 (-4.660)	-7.138 (-3.827)	-4.016 (-4.072)
Age	0.325 (5.085)	0.172 (5.479)	0.417 (7.564)	0.239 (8.068)	0.305 (7.172)	0.165 (7.935)
Income	-0.027 (-4.380)	-0.015 (-4.569)	-0.0020 (-5.350)	-0.0011 (-5.503)	-0.016 (-5.183)	-0.0085 (5.460)
Education	-0.882 (-2.526)	-0.431 (-2.335)	-0.082 (-0.416)	-0.049 (0.450)	-0.215 (0.277)	0.129 (0.882)
Job	-2.385 (-2.793)	-1.369 (-2.884)	-2.275 (-5.341)	-1.314 (-5.571)	-2.709 (-5.219)	-1.433 (-5.429)
Maddala R^2	0.403	0.403	0.592	0.595	0.473	0.471
Cragg-Uhler R^2	0.828	0.828	0.804	0.809	0.754	0.751
YcFadden R^2	0.772	0.773	0.673	0.679	0.649	0.645
Chow R^2	0.764	0.760	0.702	0.705	0.680	0.676
Log-Likelihood Function	-29.3	-29.1	-83.8	-82.4	-66.7	-67.4
Likelihood Ratio Test (With 4 dif)	198.3	198.7	345.3	348.2	246.3	244.9
% of Correct Prediction	0.977	0.974	0.894	0.894	0.930	0.930

V Conclusions:

The main findings of this chapter may be summarised in the following:

1. The more strict the country with respect to Islamic teachings, as evidence from its civil laws, traditions and way of life, the larger the proportion of its population which selects to deal with Islamic banks. Thus the proportion of population which deals with interest-free banks in Saudi Arabia is much higher than its counterpart in Egypt and the UAE. Similarly, the proportion of population which deals with Islamic Financial Institutions in the UAE is greater than its Egyptian counterpart.

2. Selection of an Islamic bank, though depends heavily on religious factors, is also affected by such factors as banking services, convenience visibility and staff competence.

3. The mean values of age and income of persons dealing with Islamic banks differ from those of persons dealing with traditional banks. Also, those who deal with Islamic banks seems to occupy different occupations from those who deal with conventional banks.
4. The logit and probit analysis suggest that age, income and occupation have significant effects on the probability of banking with an interest-free (Islamic) bank operating in a dual banking system:

    - The probability of dealing with an Islamic bank increases with the increase in age.

- As income increases the probability of dealing with an Islamic bank decreases.
- Salary earners have a higher probability of dealing with Islamic banks (particularly obtaining funds on Morabaha basis) than self-employed persons.

5. The effect of the level education on the probability of dealing with an Islamic bank is not uniform amongst Middle Eastern countries which enjoy a dual-banking system. The education variable has a significant negative effect on the probability of dealing with an Islamic bank in Egypt but not in Saudi Arabia or the UAE.

Chapter Seven

Structure and Performance of Kuwait Finance House (KFH)

Abstract

This chapter analyses the structure and performance of KFH; the oldest and largest interest-free financial institution operating in Kuwait. The study examines the activities and products of the company, analyses its most recent financial statements and assesses its performance over the last twenty years.

The chapter also compares the structure and performance of KFH with those of the commercial banks operating in the same country.

Structure and Performance of Kuwait Finance House (KFH)

Introduction

Kuwait Finance House (KFH) is a public share holding company incorporated in Kuwait. The company was established in 1977 and started its operations in 1978 as an interest-free bank. The principal activities of the company include the provision of banking services, the purchase and sale of property and other trading activities including project construction for its own account as well as third parties. Sales may take various forms including cash, credit and murabaha sales. It also includes joint venture business with third parties. All activities are claimed to be conducted in accordance with the teachings of Islam without practicing usury.

The aim of this chapter is to analyze the structure and performance of the K.F.H., being the major Islamic (interest-free) financial institution in Kuwait. The chapter is divided into four sections. Section one examines the various activities of KFH and the type of products which the company offers. An analysis of KFH financial statements is conducted in section two. Indicators of the company's performance are analyzed in section three, while section four compares the structure and performance of the KFH with conventional (interest-free) commercial banks operating in Kuwait. Finally, section five summarizes the main conclusions of the study.

I. Activities and Products of K.F.H.

KFH offers all kinds of traditional banking services. It is possible to divide the activities of KFH between four sectors.

A. The Banking Sector

This sector offers the following type of accounts:

1. Current Cheque Accounts. This account may be opened in Kuwaiti Dinar (KD) or foreign currency.
2. Saving Accounts.
3. Investment Accounts. These are of four types:

One. Investment Saving Account (in KD). The minimum amount for opening and keeping this account is KD 100 (≅ US $ 330). The holders of this account received a profit rate of approximately 4.667 percent in 1996.

Two. Continuous Investment Deposit. This deposit is an approximate medium term investment (more than one year) where KFH invests 90% of its value in various investment fields. The minimum amount for opening and keeping this account is KD 3000 (≅ US $ 10,000). The account is self renewed at maturity. The deposit can be used as a collateral against any service requiring such collateral such as Visa Classic Card, "Murabaha" or "Guarantees". The holders of this account received a profit rate of approximately 7% in 1996.

Three. Timed Investment Deposits (in KD). This deposit is a suitable short term investment (one year), where KFH invests 80% of its value in various investment fields. The minimum account for opening and keeping this account is KD 1,000 (≅ US $ 3,300). The deposit can be used as a collateral in the same way as the continuous investment deposit. The holders of this account achieved a rate of profit of approximately 6.2 percent in 1996.

Four. Timed Investment Deposit in Foreign Currency. This deposit is a suitable investment for clients requesting investment in foreign currency; US dollars or Sterling pounds. The minimum amount to open this type of deposit is KD 3,000. The account has different maturity options (3 / 6 / 9 months and one year). The holders of this account achieved rates of profits of 5.1% and 6.54% for US $ and Stg. respectively.

B. The Trading Sector

This sector has three branches, namely Shuwaikh trading center, the regional branch of Tunis Street, Tunis street branch and the headquarters at Farwaniya. The services rendered by this sector can be described as follows:

1. "Murabaha" service for purchasing vehicles, building materials, furniture and house equipment.
2. Selling new and used cars.
3. Lease to own service.
4. Purchasing used cars.
5. Commercial deals.
6. Participation transactions.
7. Sales representatives at car agents.
8. Other services.

C. The Finance Sector

The finance sector provides its services through Credit and Letters of Credit Departments, Vip department, and local real estate department. These services aim at fulfilling the clients' needs of different financial products and banking services in addition to supporting their economic activities. The services offered by these departments could be listed as follows (KFH, integrated services, 1997):

(1). Letters of Credit
(2). "Murabaha" Credit
(3). Export Credit
(4). Guarantees

(5). Bills of Collection

(6). Credit and Banking Facilities

(7). "Istisna" product - (co-operative sales)

(8). "Murabaha" Real Estate and Land Purchasing/Selling

(9). "Al ajal" Credit Selling

(10). Cash Selling

(11). Residential Real Estate Assessment

(12). Construction for Second Party

(13). Housing Buildings Finance

(14). Financing and Executing Public Utilities Works at Housing Areas

(15). Real Estate Portfolio Management

(16). Other Services

D. The Investment Sector

The investment sector introduces its services through international investment department, international real estate department and dealing room. These departments offer the following services:

1. "Murabaha" Service
2. "Mudaraba" Service
3. "Ijara" Service
4. Projects Management Service
5. Companies Establishment Service
6. Clients' Fund Management
7. International Trade Finance Service
8. "Murabaha" Purchase of Overseas Real Estate
9. Investment in International Real Estate Portfolio ("Dana" Real Estate Portfolio)
10. Currencies "Mudaraba" in favour of KFH Clients and Others
11. Other Investment Services

Methods of Finance Used by KFH:

1. **Murabaha (Profiteering)**

The fields and activities of Murabaha Department include:

- All kinds of cars, either new or used, and either at the companies or the individuals.
- Furniture either ready made or pre-fabricated.
- Electrical and electronic devices.
- Materials and constructional works.
- Boats, machines and marine equipment's.
- Spare parts.
- Commercial transactions.

KFC also caters for Egyptians working in Kuwait (some 300,000) and Kuwaitis who own property in Egypt by offering them the service of purchasing Egyptian cars, either they are manufactured in Egypt or imported, where the purchasing and paying will take place in Kuwait and the delivery in Egypt.

The Murabaha transactions procedures followed by KFH are based on three principles:

1. The client (the promissor with purchase) offers a price including specifications of the desired goods to be bought from the exhibition or the company or the establishment, to one of the Murabaha branches of the KFH where there is a special form to be filled.

2. K.F.H. purchases the goods and possesses them.

3. The goods will be sold to the client (the promissor with purchase), where he will be given a delivery order from the principal seller (company or establishment).

KFH claims that its Murabaha method of finance conforms with Islamic principles as it is one of the well-known sales (trust sales) where the capital or cost price of the seller (KFH) is known by the purchaser (client) and the agreed profit will be added.

KFH also claims that its Murabaha process cannot be considered as a personal loan but only a business operation based on two bases:

(a). The purchasing by KFH from the source (principal seller) in order to fully own the product and then selling to the client according to an agreed profit.

(b). The sale price fixed mutually will not increase with delay and will not decrease with acceleration.

Not all people are convinced by the KFH arguments regarding the Islamization of the Murabaha method. Some claim that KFH purchases the product only after receiving a solid promise from the purchaser and that if the purchasers change their mind about the transaction, they may lose a deposit or open themselves to some liability. Thus, KFH does not really bear any risk to justify its profit. Also, the selling price to the client includes a margin (profit) which can only be calculated using some predetermined rate. This to some people, is nothing but an "interest rate" in a fancy dress. Moreover, many customers find it unjust that acceleration of payment does not allow for reduction in the charges. Furthermore, there are instances where customers were charged for delays in payments.

2. Ijara (Leasing)

Leasing (Ijara) is another important tool of finance used by KFH. The method is applied mostly to business customers. A large number of businesses in Kuwait rely more on leasing their assets instead of the traditional method of spending huge amounts of cash to buy capital assets. Various items of equipment, including aeroplanes, heavy equipment, computers, vehicles and even furniture can be leased through Ijara.

Through Ijara KFH buys and owns the equipment the customer requires and leases it to the customer on a "lease and return" basis or if the customer chooses on a "lease to purchase" basis in which the customer purchases the equipment at the end of the lease period at a price agreed upon between the lessor and the lessee before the signing of the contract. The lessee can extend the lease period if he also so wishes. Equipment could also be exchanged to upgrade the technology, the capacity and/or quality of the equipment.

Here again, some Muslim economists claim that this method of finance, like "Morabaha" is not interest-free since KFH does not own all leased assets; the profit margin is a function of the time of lease and is calculated in advance at some fixed rate.

3. Istisna (Project Financing):

Istisna (project financing) is used by KFH to finance industrial and construction projects. According to this method of finance, KFH acts as a major contractor responsible for supervising, over-seeing and maintaining the project. Subcontractors are assigned the task of executing and commissioning the project. Upon completion of the project, the customer begins to pay the cost of the project and the profit due to KFH based on the initial agreement which provides flexible and easy instalments.

This method of finance suggests that KFH acts as a contractor and not as a mere bank. KFH supplies the funds during the construction period and the customer has no choice of repaying the debt (the principal plus the agreed profit) at the end of the construction or in installments over a long period. Thus KFH does not share the customer the profit/loss outcome of the project after construction. Hence, this method is not similar to the "Mudaraba" or "Musharaka" methods of finance. The determination of the instalments raises doubts on whether the "Istisna" method of finance is truly "interest-free".

4. **Co-op Marketing:**

This method is used in financing local commerce. KFH purchases customer's products and sells them to cooperative supermarkets in accordance with a supply, representation and distribution agreement which delegates the customer to transport and deliver goods to the cooperative supermarkets. Payments for goods delivered to cooperatives will be deposited in the customer's account within one week from the submission to KFH of sales statements and delivery notes, after deduction of a pre-agreed profit percentage of the total amount due to the customer.

This method suggests that KFH acts as an agent as well as a financer.

5. **Real Estate Trading**:

This service helps first-time home buying nationals to purchase their choice of residence by selling it to them on an easy and flexible Murabaha basis. The company utilizes the government's housing grant awarded to nationals, as a down payment, providing the opportunity for long-term repayment. It is claimed that KFH transactions are non-usurious. But the question is: in what way does the provision of finance and the repayment of the instalments to KFH differ from borrowing from a traditional (interest-based) bank?

KFH also acts as a real estate agent. It manages local properties and purchases and sells plots of land.

KFH also acts as a land developer. It purchases and develops vacant plots of land into residential areas of various design, offering them for sale to the public.

The partnership (Musharaka) principle is also applied in the case of real estate. KFH joins other parties in building investment-oriented properties.

6. **Mudaraba Service**:

KFH invests client's money in successful companies in different fields of activity against deducting a profit percentage from the achieved profit of KFH.

This form of "Mudaraba" differs from the classical case where the Islamic bank provides finance and the client provides its effort in a joint venture and both the client and the bank share the profit/loss of the venture.

The "Mudaraba" service of KFH is more of an "agent" service than "Islamic-banking finance".

Another peculiar type of "Mudaraba" offered by KFH is what is called "Currencies Mudaraba" whereby the company deals in different currencies on behalf of the clients. Some people are concerned whether these currency speculations are Islamic, since Islam prohibits all kinds of gambling.

II. An Analysis of K.F.H. Financial Statements

KFH financial statements have been prepared in conformity with International Accounting Standards. The significant accounting policies adopted are as follows:

(i). **Accounting Convention**: The financial statements are prepared under the historical cost convention.

(ii). **Receivables**: Receivables are stated in the balance sheet net of specific and general provisions on the basis of a continuous appraisal of the receivables, having regard to the company's past experience, current economic conditions and other relevant factors. Specific provisions are made to reduce all impaired receivables to their expected realizable value whereas general provisions are made to provide for losses known from experience to exist but not yet specifically identified.

(iii). **Leased assets**: Leased assets are stated at amounts equal to the net investment outstanding in the leases.

(iv). **Government Debt Bonds**: Government debt bonds are stated at cost.

(v). **Investment**:

- Investments in rental buildings are intended to be held for long-term purposes and are carried at cost less depreciation.
- Investments in trading properties are intended to be held for short-term purposes and are carried at the lower of cost or market value, determined on an aggregate portfolio basis.
- Investments in other properties are intended to be held for long-term purposes and are carried at cost less provision for decline other than temporary in value, determined on an individual basis.
- Investments in securities and managerial portfolios are held for long-term purposes and are carried at cost less provision for decline other than temporary in value, determined on an individual basis.

(vi). **Subsidiary and associated companies**:

Subsidiary companies are those companies which are owned more than 50% and are fully controlled by KFH. The financial statements of subsidiary companies are not consolidated, since the amounts involved are immaterial. Accordingly, the investments in these unconsolidated subsidiary companies are consistently accounted for using the cost method of accounting for long-term investments.

Associated companies are those companies in which Finance House has a long-term investment between 20% and 50% and over which it exerts significant influence including participation in the decision making of their operating and financial policies. The investments in these associated companies are consistently accounted for using the cost method of accounting for long-term investments, since the amounts involved are immaterial. Table 7-1 lists the subsidiary and associated companies of KFH.

Table 7- 1: Subsidiary and Associated Companies of KFH

Source: K.F.H., 1996 Eighteenth Annual Report, Kuwait, 1996

(vii). **Property and Equipment** : Property and equipment are initially recorded at cost.

(viii). **Depreciation**:

- Depreciation is provided on all property and equipment, other than free hold land, at rates calculated to write off the cost of each asset over its expected useful life or the period of lease, whichever is shorter. Expected future cash flows are not discounted to their present values in determining the recoverable amount of items of property and equipment.
- Depreciation is provided on all rental buildings or freehold and leasehold land at rates calculated to write off the cost of each asset over its expected useful life or the period of lease, whichever is shorter.

(ix). **Foreign Currency**: Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the balance sheet date. All differences are taken to the statement of income.

(x). **Fiduciary Assets**: Assets held in trust or in a fiduciary capacity are not treated as assets of the company and accordingly are not included in the company's financial statements.

Table 7-2 gives the balance sheet of K.F.H. on 31 December 1996.

The data in Table 7-2 suggest that:

1. KFH holds approximately 6.5 percent of its total assets in the form of cash (KD 14,533 or 1.0%) balances with the Central Bank of Kuwait (KD 52,253 or 3.7%) and balances with banks and other financial institutions (KD 25,660 or 1.8%). Since KFH does not deal in interest, the money held with the Central Bank and other financial institutions do not produce any interest income.

Table 7-2: Balance Sheet of K.F.H. 31 December 1996

(KD 000's)

Source: K.F.H., 1996 Eighteenth Annual Report, Kuwait, 1996

2. The receivables which amount to 62 percent of total assets comprise Murabah, Istisna and Qard Hasan. The composition and residual maturity of receivables are given in Table 7-3.

The data in Table 7-2 indicate that over 58 percent of the receivables mature on demand or in less than one year. This suggests that KFH avoids long-maturity investments. Less than 5 percent of the receivables have a residual maturity between 5 and 10 years.

The data in Table 7-3 also suggests that only 36.8 percent of total receivables are made to individuals, on "Morabaha" basis. The bulk of the receivables are made to banks and other financial institutions and to companies in the productive sector.

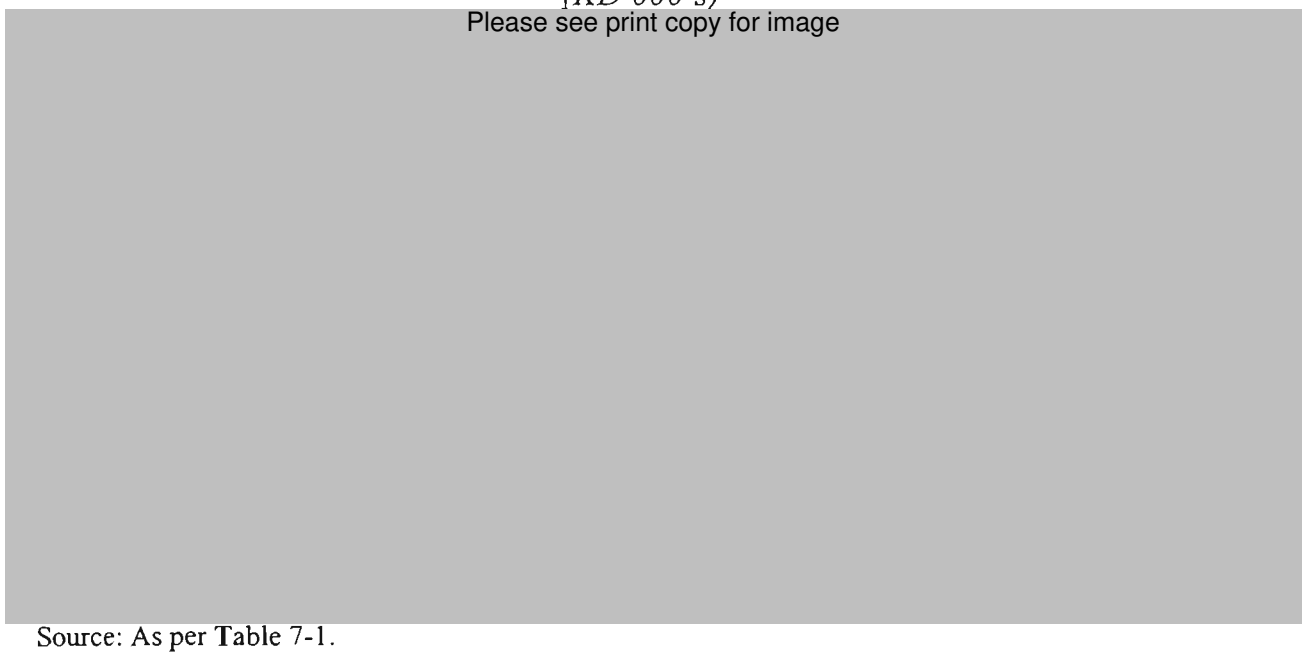
3. The leased assets represent the net investment in assets leased for periods which either approximate or cover a major part of the estimated useful lives of such assets. The lease agreements provide a purchase option to lessees at a price equal to the estimated residual value of the gross investment outstanding at the time when such option is exercised.

4. Approximately 16 percent of total assets are in the form of government debt bonds. The bulk of these bonds (99.5 percent) are real estate bonds maturing within 10 years. Only 0.5 percent of these bonds are commercial debt bonds maturing within 20 years.

The Central Bank of Kuwait (on behalf of the Government of Kuwait), purchased local estate portfolio and resident Kuwaiti customers' debts and resident debts of other Gulf Cooperation Council nationals existing on 31 December 1991, in accordance with Decree No. 32 of 1992, concerning the treatment of the financial and banking sector, Law No. 41 of 1993, concerning the purchase of certain debts by the Government, as amended by Law No. 80 of 1995, the Council of Ministers Resolution No. 865, and chapter five, concerning regulations pertaining to the management of local real estate purchased from Kuwait Finance House, of the Council of Ministers

Table 7-3: Residual Maturity of Receivables

(KD 000's)



Source: As per Table 7-1.

Resolution No. 1096 of 1993 relating to the executive regulations of Law No. 41 of 1993.

Under the terms of the above regulations, the company is committed to re-purchase the local real estate portfolio from the Government within a period not to exceed 10 years as of 31 December 1991. The company is also committed to manage the local real estate portfolio without remuneration.

The subvention on the bonds was 5.45% per annum for the first half and 5.31% per annum for the second half of the year ended 31 December 1996 and is payable semi-annually. This suggests that the transactions of KFH are not entirely interest-free.

5. The investments include three items: investment properties (79.1%); investments in securities and managed portfolios (16.1%) and investments in affiliates (4.8%). It is expected that the investment in securities carry fixed interest charges. This again suggests that the transactions of KFH are not purely interest-free.

6. The depositors' accounts comprise the following:

- Non-investment deposits which take the form of current accounts. These deposits are not entitled to any profits nor do they bear any risk or loss, as the company guarantees to pay the related balances on demand. Accordingly, these deposits are considered "Qard Hasan" from depositors to the company, on the grounds of Islamic Sharee'a .

- Investment deposits are deposits for unlimited period which are valid for one year and are automatically renewable for the same period unless the depositors concerned give written notice to the contrary three months before the due date, or deposits for a limited period which are valid for one year and are renewable only by specific instructions from the depositors concerned, or investment savings accounts which are valid for unlimited period. In all cases the

investment deposits receive a proportion of the profit as the board of directors determine, or bears share of loss based on the results of the financial year.

The company generally invests approximately 90% of investment deposits for an unlimited period, 80% of investment deposits for a limited period and 60% of investment saving accounts, respectively. The company guarantees to pay the remaining non-invested portion of these investment deposits. Accordingly, this portion is considered "Qard Hasan" from depositors to the company, on the grounds of Islamic Sharee'a. Investing such "Qard Hasan" is made at the discretion of the board of directors, the results of which are attributable to the company.

Table 7-4 gives statements of income and appropriations of KFH for the year ended 31 December 1996. The following accounting policies are applied to revenue items:

- Income from Murabaha and Istisna'a is recognised on a time apportionment basis.

- Income from leased assets is recognized on a pattern reflecting a constant periodic return on the net investment outstanding.

- Subvention on government debt bonds and income from rental buildings are recognized on an accruals basis.

- Dividend income is recognized when the right to receive payment is established.

- Fee and commission income is recognized when earned, at the time the related services are provided.

The data in Table 7-4 suggest that:

1. The largest income accrues through Murabaha, Istisna'a and leasing. Subvention of government debt bonds is the second largest source of income followed by investment income.

2. General and administrative expenses amount to approximately 59 percent of total operating expenses.

3. Over 57 percent of gross profits have been paid to depositors. Investment deposits for unlimited period received a rate of 7 percent; investment deposits for a limited period received a rate of 6.222 percent while investment savings accounts received a rate of 4.667 percent.

4. Approximately 54.1 percent of net profits were transferred to reserves while 34.7 percent were distributed to share-holders as cash dividends.

Table 7-5 gives a statement of cash flows of KFH. It can be seen that there has been increase in receivables, leased assets and other assets and a decrease in trading properties during the year ending 31st December 1996.

As to liabilities, the statement of cash flows suggests that there has been a decrease in due to banks and other financial institutions while an increase in depositors' accounts and other liabilities.

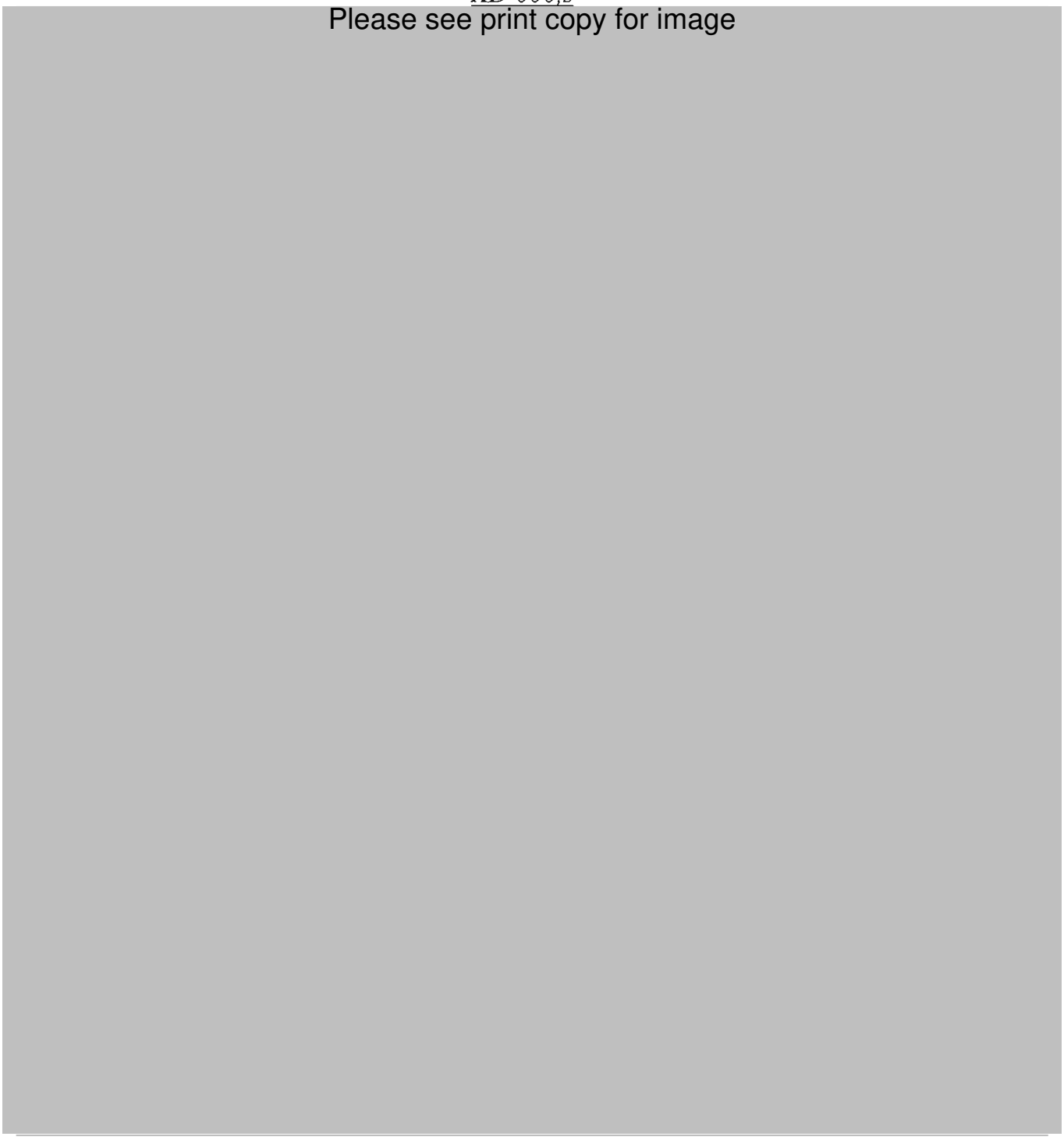
The investing activities resulted in a net cash of approximately 106.8 million KD. This resulted from a redemption of government debt bonds up to the value of 121.3 million KD.

The financing activities used some 10.4 million KD. These include 590,000 KD as payment of Zakat. The cash and balances with banks and other financial institutions at 31 December was 92,446 thousand KD as stated in the balance sheet.

Table 7-4: Statements of Income and Appropriations of KFH

Year ended 31 December 1996

KD 000,s

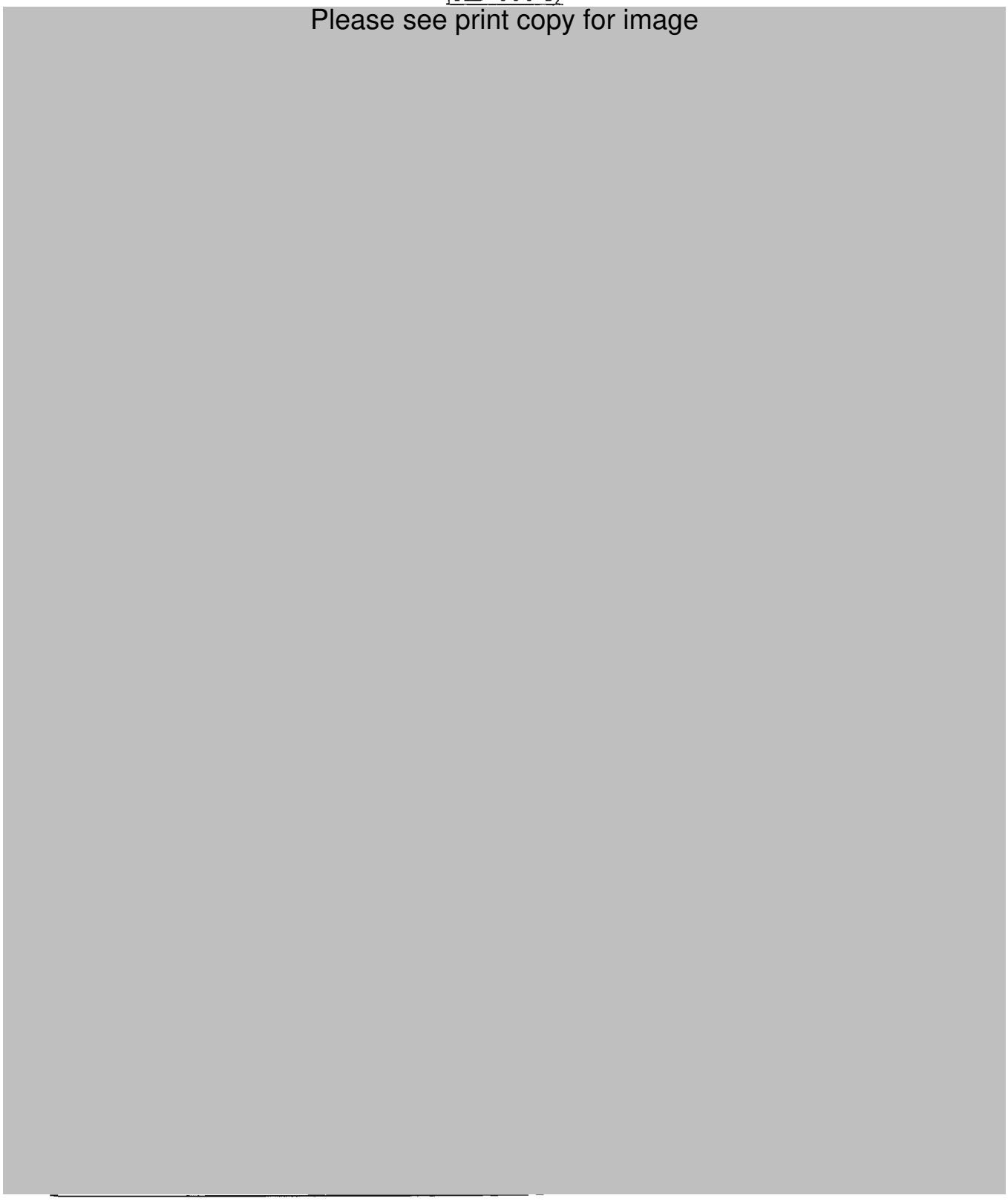


Source: As per Table 7-2.

Table 7-5: Statement of Cash Flows of KFH

Year ended 31 December 1996

(KD 000's)



Source: As per Table 7- 2.

III. Performance of KFH Over the Last Two Decades

KFH enjoyed significant growth over the past two decades. Its total assets grew from 25.7 million KD in 1978 to 1419.6 KD in 1996. This represents a growth rate of 25 percent per annum.

The data in Table 7-6 suggest that:

1. KFH has changed its portfolio in a radical way for one period to another during the past two decades.

2. KFH, like many other Islamic banks had excess liquidity until 1990/91. However, the situation changed radically since the company started investing in Government bonds following the Iraqi aggression.

3. The company's deposits increased at a substantial rate during the last two decades. These deposits grew from 21.0 million KD in 1978 to 1130 million KD in 1996; this represents a rate of growth of 24.8 percent per annum.

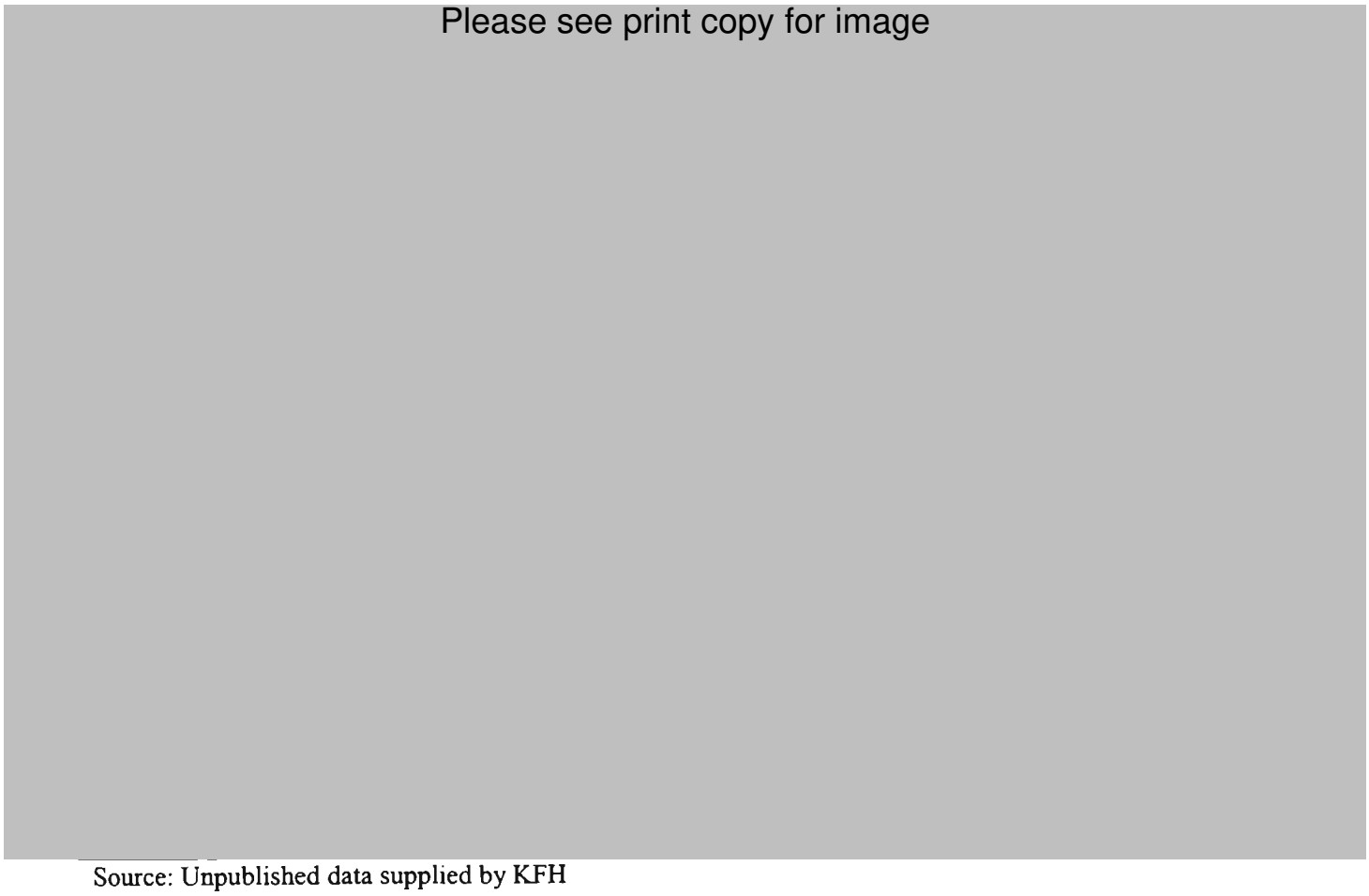
4. As a result of the strong performance of KFH, its equity grew fast during the same period. The data in Table 7 show that total equity capital increased from 2.8 million KD in 1978 to 110.3 million KD in 1996; a rate of growth of 22.6 percent per annum.

Table 7-7 gives information on the performance revenues of expenditures of KFH over the last two decades. The data in this table suggest that KFH performed very well in terms of profits. Its operating profit grew by approximately 30 percent per annum.

5. Despite the high rates of inflation and the expansion in business, KFH total expenses did not witness the same rate of growth as assets, deposits or profits. Actually, these expenses were reduced sharply since 1984.

Table7-6: Growth in Financial Variables of KFH

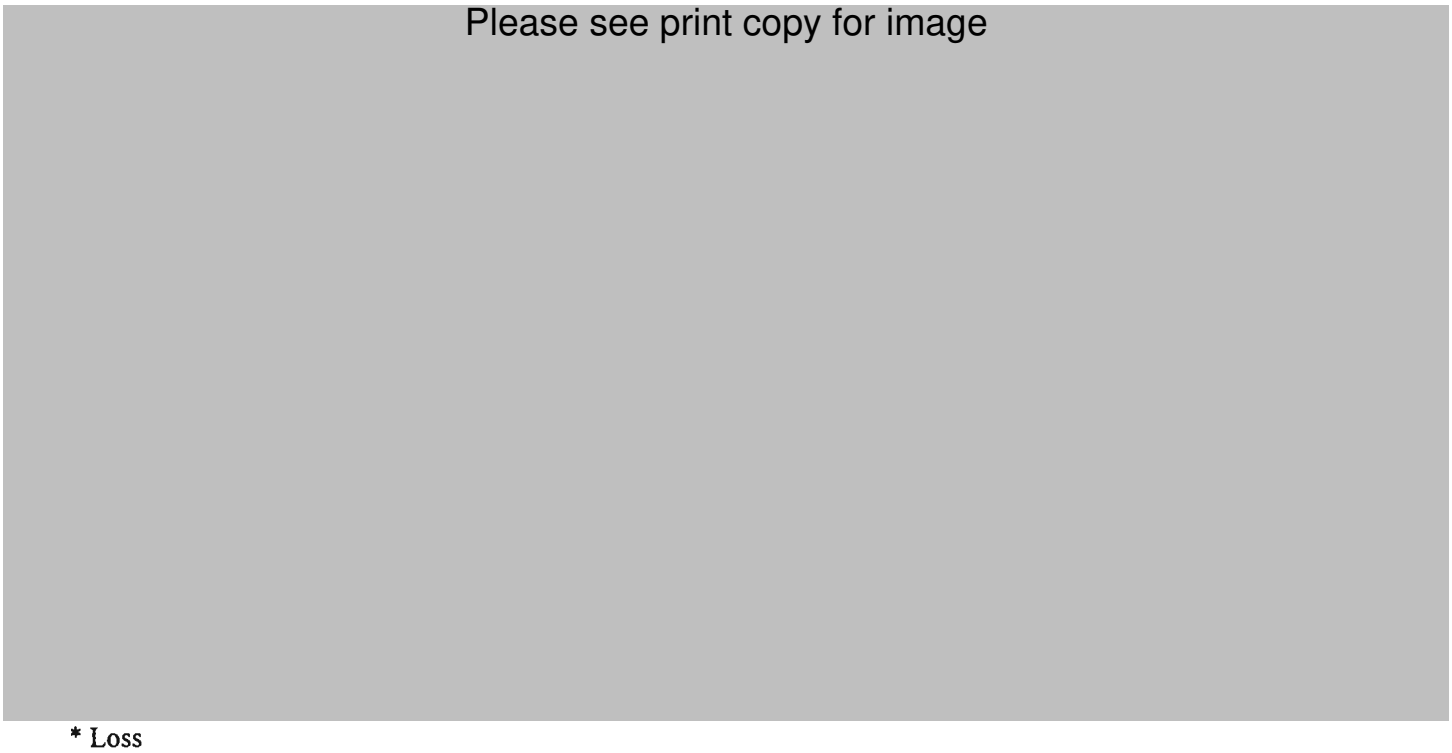
(KD 000's)



Source: Unpublished data supplied by KFH

Table 7-7: Growth in Revenue and Expenditure of KFH

(KD 000's)



* Loss

Source: As per Table 7-6

6. Despite the high growth in profits, the distribution to profits did not change much during the last two decades. The rate of return on deposits were reduced from an (average) of 6.5 percent in 1981 to only 4.16 percent in 1996. Thus the gain in profits went largely to the shareholders of KFH rather than its depositors who are supposed to share the profit (and loss) with the interest-free bank.

IV. A Comparison Between the Structure and Performance of KFH and Kuwaiti Commercial Banks

There are currently six commercial banks operating in Kuwait and using traditional methods of finance. It would be very useful to compare the structure and performance of these banks with that of KFH. It was possible to collect financial data and calculate financial ratios for these banks in 1996. The ratios cover various financial dimensions suggested by Wood and Porter (1979).

The results are given in Table 7-8. The figures in this table suggest that KFH differs substantially from the six Kuwaiti (interest-based) commercial banks. This difference manifests itself in the following:

1. The cash to asset and cash to deposit ratios are lower in KFH than in any Kuwaiti Commercial Banks.

2. KFH holds a much smaller ratio of liquid assets to assets. The KFH ratio is 6.51 percent while that of the commercial banks ranges from 15 percent to 35.03 percent. This suggests that, unlike most other Islamic banks, KFH does not face a problem of excess liquidity (Abdul-Gader and Al-Ghahtani, 1990, Metwally, 1994 and Ray, 1995). This supports the above results which suggest that KFH is not a mere bank and its structure, therefore, may not be strictly comparable to those of commercial banks, or even other Islamic banks which do not have the same kind of activities.

Table 7-8: A Comparison Between the Structure and Performance of KFH and Other Kuwaiti (interest-based) Commercial Banks (1996)

Bank	Financial Data Million US Dollars						Financial Ratios (%)									
	Total Assets	Liquid Assets	Loans and Investment	Fixed Assets	Deposits	Equity	C/A	C/D	LA/A	LA/D	E/A	D/A	L/A	L/D	π/A	π/E
Al-Ahli Bank of Kuwait	4167	625	3409	77	3478	420	1.15	1.37	15.00	17.97	10.07	83.46	21.46	25.71	0.33	3.30
Bank of Kuwait & Middle East	3166	763	2340	31	2857	248	5.19	5.75	24.11	26.71	7.85	90.26	22.45	24.85	0.28	3.60
Burgan Bank	3171	682	2378	94	2631	476	4.71	5.68	21.50	25.92	15.00	82.95	22.11	26.65	0.81	5.37
Commercial Bank of Kuwait	4050	1419	2562	42	3000	483	20.91	28.23	35.03	47.30	11.92	74.06	14.27	19.27	0.63	5.29
Gulf Bank	4861	1451	3371	27	4165	530	5.60	6.54	29.85	34.84	10.90	85.69	31.61	36.89	1.67	15.33
National Bank of Kuwait	12951	3424	9186	141	11128	1157	3.81	4.43	26.44	30.77	8.94	85.92	35.56	41.38	1.63	18.22
K.F.H	4685	305	4217	55	3729	364	1.02	1.29	6.51	8.18	6.50	79.59	62.00*	77.90	2.42	30.52

* = Loans receivables

Source: Institute of Banking Studies, Financial Operating Report 1980-1996 Kuwait, 1996 and Kuwait Finance House, 1996 Eighteenth Annual Report, Kuwait, 1996

3. The ratio of deposits to assets of KFH is smaller than that of all Kuwaiti Commercial banks with the exception of the Commercial bank of Kuwait. This seems to conform with the trend for other Islamic countries (Brown, 1994)

4. The ratio of loans to assets is much higher in the case of KFH than in the case of commercial banks. This, however, could be due to incompatibility of definitions. The KFH data do not include "loans" as a component of assets. We considered the receivables as a proxy to these loans. The ratio of receivables to total assets was 62 percent in 1996. This compares to a loan to assets ratio for Kuwaiti commercial banks which ranges from 14.27 percent (in the case of the Commercial Bank of Kuwait) to 35.56 percent (in the case of the National bank of Kuwait). Being an interest-free bank, KFH does not hold as much securities and investments (which yield interest) as Commercial Banks (Moore, 1990).

5. The ratio of net profits to assets is much higher in the case of KFH than in the case of Kuwaiti (interest-based) commercial banks. The data in Table 7 suggest that the KFH's net profit ratio to total assets is more than double that of the most profitable Kuwaiti Commercial banks and is more than eight times that of the least profitable bank. A similar conclusion is reached for the ratio of profit to equity. This suggest that the "Morabaha" method of finance adopted by KFH and the other unique(non-traditional banking) activities performed by this company result in a much higher ratio of profit to assets and profit to equity than obtained through traditional banking operations (Choudhry, 1992 and Wilson, 1985).

Conclusions

The main findings of this chapter may be summarized in the following:

1. An analysis of the activities and tools of finance of KFH suggests that this company is not a mere bank. It acts as a financier, contractor, lessor, developer and agent. It receives a profit margin for its role. The calculation of this margin, particularly when the repayment is made over installments, may introduce interest charges from the back door.

2. KFH relies heavily on the "Morabaha" method of finance. And only 36.8 percent of "Morabaha" funds are directed to individuals.

3. An analysis of the KFH balance sheet suggests that the transactions of this company cannot be labelled purely interest-free. The company holds government debt bonds, securities and portfolios which pay fixed interest.

4. KFH avoids long-term investments. Less than 5 percent of the receivables have a residual maturity over 5 years.

5. KFH has changed its portfolio in a radical way from one period to another during the last two decades.

6. The company's assets, deposits, equity and profits have grown at sky-rocking rates during the last twenty years.

7. The gains in profits of KFH went largely to its shareholders rather than its depositors who are supposed to share the profits (and Losses) with the interest-free bank.

8. The liquidity ratio of KFH is much smaller than those ratios of Kuwaiti Commercial banks. This does not conform with the results obtained for other Islamic banks which suggest that these banks face problems of excess

liquidity. The contradiction may be explained by the nature of activities of KFH. These activities, which rely heavily on the principle of "Morabaha" and on the role of KFH as a contractor, a real estate agent, a lessor and a speculation, render KFH strictly incomparable with Commercial banks operating in Kuwait and Islamic banks operating in other countries.

9. The ratio of loans to assets is much higher in KFH than in Commercial (interest-based) banks operating in Kuwait. This is due to the relatively small component of securities and investments in KFH portfolio.

10. KFH achieved a much higher ratio of profit to assets and to equity than any Kuwaiti Commercial bank. This may be due to the unique non-banking activities performed by this company.

Chapter Eight

Kuwaitis' Attitudes Towards Interest-Free Banks: The Case of Kuwait Finance House: Factor Analysis

Abstract

This chapter uses factor analysis to determine Kuwaitis' attitudes towards Kuwait Finance House [KFH], the largest and the oldest interest-free financial institution in Kuwait. A survey was conducted by the author covering 385 Kuwaitis. Respondents were asked to indicate their degree of agreement with a number of statements regarding borrowing, depositing and dealing with KFH vis-a-vis the other six traditional Kuwaiti Commercial banks.

Bartlett's test of sphericity and the Kaiser-Meyer-Olkin [KMO] measure of sampling adequacy suggest that factor analysis is appropriate. The application of the principal components analysis to the survey results shows that there are three main motives for depositing with KFH; five main factors determining the attitudes towards borrowing from KFH and five factors responsible for preference in dealing with traditional banks rather than KFH.

Kuwaitis' Attitudes Towards Interest-Free Banks: The Case Of Kuwait Finance House: Factor Analysis

Introduction

Kuwait, like many other Middle Eastern Countries has a dual banking system, i.e., interest-free financial organizations operate side-by-side with traditional [interest-based] banks. Kuwait Finance House [KFH] is the largest interest-free bank operating in Kuwait.

KFH is a public shareholding company incorporated in Kuwait and is engaged principally in providing banking services, the purchase and sale of properties, leasing, project construction for its own account as well as for third parties and other trading activities without practicing "usury" {i.e., paying or receiving interest}. KFH is interested in developing and operating an Islamic banking system globally, thereby offering financial products and investment services in its target markets at competitive rates and returns to both depositors and shareholders.

Almost one-half of Kuwaitis have had some dealing [mostly purchase or leasing some asset] with KFH during the past few years. Also, a large proportion of the population holds a deposit of some kind with KFH.

There has never been an inquiry into the preferences of Kuwaitis for dealing with a particular type of bank i.e., interest-free vis-a-vis traditional banks. This chapter is an attempt to close this gap in the literature. The chapter applies the principal component analysis to survey results which were obtained by this researcher.

The chapter is divided into four sections. Section one examines the main characteristics of the sample. The methodology is outlined in section two. Section three summarizes the results of factor analysis. Three sets of results are incorporated: {1} factor analysis applied to the main variables affecting Kuwaitis' decision to borrow

from KFH, {2} factor analysis applied to the reasons for selecting KFH as a venue for deposits and {3} factor analysis applied to the main banking attributes which determine the attitudes of customers towards KFH vis-a-vis the other six traditional banks. Finally, section four summarizes the main conclusions of the chapter.

{I} Main Characteristics of the Sample

A survey was conducted by the author to gather opinions of banks' clients in Kuwait toward the Kuwait Finance House [KFH], the largest Islamic financial institution in Kuwait. These clients have a free choice to bank with KFH or any of the other six commercial banks which are interest-based financial institutions. The questionnaire was prepared by the author in Arabic {with an English translation} and was filled through telephone interviews conducted by trained personnel after a random sample was selected. The size was determined using a 95 percent level of confidence, 5 percent level of precision and a proportion of 0.5 {which reflects the maximum possible variation in the population}. Under these assumptions, the sample size is:

$$n = \frac{0.5\ (0.5)\ (1.96)^2}{(0.5)^2} = 384.16 \cong 385$$

The questionnaire, a copy of which is enclosed in the appendix to this chapter, consisted of three main sections: section one dealt with reasons for borrowing from Kuwait Finance House (KFH), section two examined the motives for holding deposits with KFH, while section three investigated the reasons for preferring to deal with conventional commercial banks rather than KFH. The respondents were asked to indicate their degree of agreement with a number of statements using a five point scale

[1 = strongly disagree, 5 = strongly agree]. The questionnaire also collected information on a number of socio-economic characteristics of the respondents.

Table 8-1 gives the main characteristics of the sample. The data in this table suggest that:

1. Approximately 63 percent of all respondents were males and 37 percent females.
2. Over two-thirds of the respondents aged 25 to 45. The mean age was 36 years and the standard deviation was 10.4 years.
3. Over one-half of the respondents had an average monthly family income of 750-1500 KD [approximately US $ 2500-5000]. The mean income is approximately 1161 KD [US $ 3800] and the standard deviation is 533 KD [US $ 1700].
4. Most people interviewed reached an education level at the intermediate or secondary level. However, 18.4 percent of the respondents completed at least a first university degree.
5. Approximately three-quarters of the respondents are public servants i.e., work in the government sector and only 4.7 percent are self-employed.
6. The vast majority of respondents [77.5%] are Kuwaitis. Only 22.6 percent of the respondents who carry bank accounts in Kuwait were non-Kuwaitis.

Table8-1: Main Characteristics of the Sample

Socio-Economic Characteristics	No.	%	Mean	Std. Deviation
1. **SEX**:				
[1] Male	241	62.9		
[2] Female	144	37.1		
2. **AGE**:			36	10.4
One)Less than 21	17	4.4		
Two)21 and less than 25	48	12.5		
Three)25 and less than 35	121	31.4		
Four)35 and less than 45	138	35.9		
Five)45 or more	61	15.8		
3. **MONTHLY FAMILY INCOME**			1161	533
One)Less than 500 KD	30	7.8		
Two)500 and less than 750 KD	68	17.7		
Three)750 and less than 1000 KD	86	22.3		
Four)1000 and less than 1500 KD	107	27.8		
Five)1500 and less than 2000 KD	56	14.5		
Six)More than 2000 KD	38	9.9		
4. **EDUCATION**				
One)Primary	41	10.6		
Two)Intermediate	90	23.4		
Three)Secondary	111	28.8		
Four)Diploma for high school	72	18.7		
Five)1st University degree	56	14.5		
Six)Higher education	15	3.9		
5. **OCCUPATION**				
One)Public servant	287	74.5		
Two)Employee in a private organization	80	20.8		
Three)Self-employed	18	4.7		
6. **NATIONALITY**				
One)Kuwaiti	298	77.4		
Two)Non-Kuwaiti	87	22.6		

[II] A Brief Review Of The Technique Of Factor Analysis

Factor analysis is usually used by social scientists as a variable-reducing technique. This section briefly reviews the mathematics of this technique. The review is heavily based on the work developed by Muliak (1972) and summarized by Malhotra et. al (1996). Mathematically, factor analysis is somewhat similar to multiple regression analysis, in that each variable is expressed as a linear combination of underlying factors. The amount of variance a variable shares with all other variables included in the analysis is referred to as communality. The covariation among the variables is described in terms of a small number of common factors plus a unique factor for each variable. These factors are not overtly observed. If the variables are standardised, the factor model may be represented as:

$$X_i = A_{i1}F1 + A_{i2}F2 + A_{i3}F3 + \ldots + A_{im}F_m + V_iU_i$$

where:

X_i = ith standardised variable

A_{ij} = standardised multiple regression coefficient of variable i on common factor j

F = common factor

V_i = standardised regression coefficient of variable I on unique factor i

U_i = the unique factor of variable i

m = number of common factors

The unique factors are uncorrelated with each other and with the common factors. The common factors themselves can be expressed as linear combinations of the observed variables.

$$F_i = W_{i1}X_1 + W_{i2}X_2 + W_{i3}X_3 + \ldots + W_{ik}X_k$$

where:

F = estimate of ith factor

W_i = weight or factor score coefficient

k = number of variables

It is possible to select weights or factor score coefficients so that the first factor explains the largest portion of the total variance. Then a second set of weights can be selected, so that the second factor accounts for most of the residual variance, subject to being uncorrelated with the first factor. This same principal could be applied to selecting additional weights for the additional factors. Thus, the factors can be estimated so that their factor scores, unlike the values of the original variables, are not correlated. Furthermore, the first factor accounts for the highest variance in the data, the second factor the second highest, and so on.

In the factor analysis mode, hypothetical components are derived that account for the linear relationship between observed variables. The factor analysis model requires that the relationships between observed variables be linear and that the variables have non-zero correlations between them. The derived hypothetical components have the following properties:

1. They form a linearly independent set of variables. No hypothetical component is derivable from the other hypothetical components as a linear combination of them.
2. The hypothetical components' variables can be divided into two basic kinds of components: common factors and unique factors. These two components can be distinguished in terms of the patterns of weights in the linear equations which derive the observed variables from the hypothetical components' variables. A common factor has more than one variable with a non-zero weight or factor loading associated with the factor. A unique factor has only one variable with a non-zero weight associated with the factor. Hence, only one variable depends upon a unique factor.

3. Common factors are always assumed to be uncorrelated with the unique factors. Unique factors are also usually assumed to be mutually uncorrelated, but common factors may or may not be correlated with each other.

4. Generally, it is assumed that there are fewer common factors than observed variables. However, the number of unique factors is usually assumed to be equal to the number of observed variables.

The following notations are used.

X= An n x 1 random vector of observed random variables $X_1, X_2, X_3, \ldots X_n$.

It is assumed that

$E(X) = 0$, and

$E(XX') = R_{xx'}$ a correlation matrix with unities in the main diagonal.

F= An m x 1 vector of m common factors $F_1, F_2, \ldots F_m$. It is assumed that

$E(F) = 0$, and

$E(FF') = R_{ff'}$ a correlation matrix

U = An n x 1 random vector of the n unique factors variables $U_1, U_2, \ldots U_n$.

It is assumed that

$E(U) = 0$, and

$E(UU') = I$. The unique factors are normalised to have unit variances and are mutually uncorrelated

A = An n x m matrix of coefficients called the factor pattern matrix

V = An n x n diagonal matrix of coefficients for the unique factors.

The observed variables, which are the coordinates of X, are weighted combinations of the common factors and the unique factors. The fundamental equation of factor analysis can then be written as:

$$X = AF + VU$$

The correlations between variables in terms of the factors may be derived as follows:

$$
\begin{aligned}
Rxx &= E(XX') \\
&= E\{(AF + VU)(AF + VU)'\} \\
&= E\{(AF + VU)(F'A' + U'V')\} \\
&= E(AFF'A' + AFU'V' + VUF'A' + VUU'V') \\
&= AR_{ff}A' + AR_{fu}V' + VR_{uf}A' + V^2
\end{aligned}
$$

Given that the common factors are uncorrelated with the unique factors, we have:

$$R_{fu} = R_{uf}' = 0.$$

Hence,

$$R_{xx} = AR_{ff}A' + V^2$$

Suppose we subtract the matrix of unique factor variance, V^2, from both sides. We then obtain:

$$R_{xx} - V^2 = AR_{ff}A'$$

Rxx is dependent only upon the common factor variables, and the correlations among the variable are related only to the common factors. Let $R_c = R_{xx} - V^2$ be the reduced correlation matrix.

We have already defined the factor pattern matrix A. The coefficients of the factor pattern matrix are weights assigned to the common factors when the observed variables are expressed as linear combinations of the common and unique factors.

We now define the factor structure matrix. The coefficients of the factor structure matrix are the covariances between the observed variables and the factors. The factor structure matrix is helpful in the interpretation of factors as it shows which variables are similar to a common factor variable. The factor structure matrix, A_s, is defined as:

$$\begin{aligned} A_s &= E(XF') \\ &= E[(AF + VU)F'] \\ &= AR_{ff} + VR_{uf} \\ &= AR_{ff} \end{aligned}$$

Thus, the factor structure matrix is equivalent to the factor pattern matrix A multiplied by the matrix of covariance's among the factors R_{ff}. Substituting A_s for AR_{ff}, the reduced correlation matrix becomes the product of the factor structure and the factor pattern matrix.

$$\begin{aligned} R_c &= AR_{ff}A' \\ &= A_sA' \end{aligned}$$

[III] Results of Factor Analysis

A. Borrowing from KFH

190 respondents [49.3%] borrowed funds from KFH at some time during the last five years. They preferred to approach this interest-free bank rather than the traditional bank. It is logical, therefore, to find out the main reasons for this preference. Respondents were asked to indicate their degree of agreement with the following 20 statements using a five point scale:

V_4 = KFH is an interest-free financial institution

V_5 = It is difficult to obtain the loans from other banks

V_6 = It costs less to borrow from KFH

V_7 = The employees of KFH are more efficient

V_8 = Hours of business of KFH are more convenient

V_9 = Loans of KFH extend over longer time periods

V_{10} = Borrowing from KFH was based on the recommendations of friends and relatives.

V_{11} = It is easier to read KFH financial statements

V_{12} = Community services is one important reason for dealing with KFH

V_{13} = Transactions of KFH are carried out in a speedy manner

V_{14} = KFH enjoys a good reputation

V_{15} = Religion is the main reason for borrowing from KFH

V_{16} = KFH offers unique services

V_{17} = The transactions of KFH are fair when borrowing and paying back

V_{18} = It is easier to borrow from KFH for any purpose

V_{19} = There are no serious problems if repayment of the installments are delayed

V_{20} = Employees of KFH are understanding and helpful

V_{21} = The terms of borrowing from KFH are easy and just

V_{22} = The loans can be repayed at anytime at reduced cost

V_{23} = I never dealt with any other bank except KFH

Table 8-2 gives the means and standard deviations of scores of variables related to borrowing from KFH.

Table 8-2 : Means and Standard Deviations of Scores of Variables Related To Borrowing From KFH

Variable	Mean	Std. Deviation
VAR10	3.03684	1.07088
VAR11	3.39474	0.98506
VAR12	3.51053	1.05780
VAR13	3.20526	1.10553
VAR14	3.60000	1.13062
VAR15	4.02105	1.27224
VAR16	3.07895	1.14969
VAR17	2.95789	1.19448
VAR18	3.16842	1.10939
VAR19	2.90526	1.08938
VAR20	3.54211	0.99513
VAR21	3.18947	1.10118
VAR22	2.47368	1.14404
VAR23	2.85263	1.33308
VAR4	3.72105	1.23489
VAR5	2.46316	1.18018
VAR6	2.66842	1.18659
VAR7	2.58947	1.11265
VAR8	3.26316	1.07113
VAR9	3.34211	1.05601

The data in Table 8-2 suggest that adhering to religion [variables 15 and 4] is the main variable which motivate Kuwaitis to borrow from KFH rather than traditional

banks. These are followed by reputation [Variable 14], understanding of employees [Var. 20] and community services [Var. 12]. The mean scores of variables 5,6,17 and 22, which relate to traditional banking services regarding borrowing, are much smaller. This suggests that KFH does not differ much in terms of traditional services, from interest-based banks.

Factor analysis was performed on the explanatory variables with the primary goal of data reduction. A correlation matrix was constructed based on the survey results. This matrix is given in Table 8- 3. The data in this table show high correlation between a number of variables which suggest that factor analysis is appropriate.

Bartlett's test of sphericity was used to test the null hypothesis that the variables are uncorrelated in the population. The test gave a value of 1796.6 which is highly significant favoring a rejection of the null hypothesis [Dillon and Goldstein, 1984]. Also, the Kaiser-Meyer-Olkin [KMO] measure of sampling adequacy was calculated. A value of 0.898 was obtained which indicate that correlation's between pairs of variables can be explained by other variables and hence factor analysis is appropriate [Hair. Et. al, 1992].

Table 8-4 shows the application of principal component analysis to the survey results. The initial statistics show that each of variables V_{10}, V_{11} and V_{12} has an eigenvalue greater than one. These variables account for 55.8 percent of the variance. Thus the 20 explanatory variables can be redced to only three factors.

Table 8-3 : Correlation Matrix of Variables Determining Borrowing From KFH

Correlation Matrix:

	VAR10	VAR11	VAR12	VAR13	VAR14	VAR15	VAR16
VAR10	1.00000						
VAR11	0.35731	1.00000					
VAR12	0.30092	0.57740	1.00000				
VAR13	0.24385	0.55681	0.51167	1.00000			
VAR14	0.31376	0.36105	0.47691	0.49357	1.00000		
VAR15	0.27128	0.24665	0.27898	0.30914	0.51349	1.00000	
VAR16	0.24258	0.45355	0.48876	0.41595	0.34192	0.29910	1.00000
VAR17	0.05499	0.30649	0.39398	0.38321	0.45760	0.30697	0.39927
VAR18	0.22188	0.38911	0.50796	0.49798	0.41255	0.10619	0.39606
VAR19	0.21617	0.27663	0.34523	0.35452	0.40724	0.22668	0.29750
VAR20	0.26913	0.39587	0.46452	0.53797	0.59818	0.41303	0.32312
VAR21	0.08827	0.46724	0.56153	0.62416	0.42243	0.29550	0.48964
VAR22	0.21457	0.34496	0.36749	0.38289	0.42951	0.29483	0.40587
VAR23	0.18914	0.32658	0.44761	0.36170	0.35034	0.40428	0.24238
VAR4	0.09583	0.15624	0.28377	0.28245	0.54873	0.53249	0.29510
VAR5	0.25018	0.23786	0.16560	0.22278	0.11182	-0.07348	0.28487
VAR6	0.06379	0.31627	0.37586	0.35869	0.32655	0.14835	0.32569
VAR7	0.32804	0.42380	0.45324	0.48180	0.45340	0.28273	0.44736
VAR8	0.21291	0.63817	0.51122	0.48585	0.36699	0.22111	0.52440
VAR9	0.30695	0.52055	0.48700	0.50152	0.33237	.20334	0.36550

	VAR17	VAR18	VAR19	VAR20	VAR21	VAR22	VAR23
VAR17	1.00000						
VAR18	0.49250	1.00000					
VAR19	0.53771	0.42918	1.00000				
VAR20	0.38876	0.42967	0.52593	1.00000			
VAR21	0.62959	0.56710	0.44288	0.54312	1.00000		
VAR22	0.57222	0.43707	0.43526	0.39137	0.51217	1.00000	
VAR23	0.36159	0.26015	0.30731	0.48331	0.35072	0.37213	1.00000
VAR4	0.45113	0.25462	0.44042	0.41648	0.34646	0.36367	0.34130
VAR5	0.07771	0.16237	0.12073	0.06440	0.17232	0.17366	-0.00347
VAR6	0.37460	0.33606	0.21707	0.20680	0.45732	0.33848	0.29005
VAR7	0.44077	0.27921	0.39117	0.50311	0.49566	0.39050	0.41559
VAR8	0.33540	0.37214	0.34342	0.35687	0.49580	0.28202	0.29039
VAR9	0.26735	0.32542	0.31808	0.35629	0.43992	0.25932	0.28406

	VAR4	VAR5	VAR6	VAR7	VAR8	VAR9
VAR4	1.00000					
VAR5	-0.07425	1.00000				
VAR6	0.23624	0.34072	1.00000			
VAR7	0.27049	0.32286	0.36524	1.00000		
VAR8	0.18779	0.31744	0.45617	0.50401	1.00000	
VAR9	0.13443	0.29674	0.39503	0.44439	0.53276	1.00000

Determinant of Correlation Matrix = 0.0000502

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.89769

Bartlett Test of Sphericity = 1796.6024, Significance = 0.00000

The factor matrix contains the coefficients used to express the standardized variables in terms of the factors. These coefficients, the factor loadings, represent the correlation's between the factors and the variables. A coefficient with a large absolute value indicates that the factor and the variable are closely related. The section labeled "final statistics" gives relevant information after the desired number of factors have been extracted. It shows the commonalties for the variables, along with the variance accounted for by each factor that is retained.

The rotated factor matrix obtained by the varimax procedure suggests that factor 1 has high coefficients for the variables representing clarity of bank statements [V_{11}] , hours of business [V8], length of the loans [V9], easiness to obtain the loans [V5], speed in approving the loan [V13], unique services in lending [V16] and efficiency of employees [V7]. Therefore, this factor may be labeled "traditional services". Factor 2 is highly correlated with variables V17, V21, V18, V22, V19 and V6. These variables refer to the conditions and terms of borrowing. Hence, factor 2 may be labeled "terms of borrowing". Finally, factor 3 is highly related to the variables representing religion [V15], reputation [V14], interest-free dealings [V4], staff understanding [V20] and customer loyalty [V23]. Therefore, this factor may be labeled "religious factor".

The reproduced correlation matrix suggests that only 34% residuals are larger than 0.05 indicating an acceptable model fit.

Tale 8-4 : Results of Principal Component Analysis For Loans

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
VAR10	1.00000	*	1	7.94778	39.7	39.7
VAR11	1.00000	*	2	1.88679	9.4	49.2
VAR12	1.00000	*	3	1.31560	6.6	55.8
VAR13	1.00000	*	4	0.98509	4.9	60.7
VAR14	1.00000	*	5	0.95160	4.8	65.4
VAR15	1.00000	*	6	0.79194	4.0	69.4
VAR16	1.00000	*	7	0.73032	3.7	73.0
VAR17	1.00000	*	8	0.69416	3.5	76.5
VAR18	1.00000	*	9	0.62139	3.1	79.6
VAR19	1.00000	*	10	0.55432	2.8	82.4
VAR20	1.00000	*	11	0.48269	2.4	84.8
VAR21	1.00000	*	12	0.47713	2.4	87.2
VAR22	1.00000	*	13	0.41891	2.1	89.3
VAR23	1.00000	*	14	0.39365	2.0	91.3
VAR4	1.00000	*	15	0.37671	1.9	93.1
VAR5	1.00000	*	16	0.35723	1.8	94.9
VAR6	1.00000	*	17	0.30108	1.5	96.4
VAR7	1.00000	*	18	0.28680	1.4	97.9
VAR8	1.00000	*	19	0.24548	1.2	99.1
VAR9	1.00000	*	20	0.18135	0.9	100.0

Factor Matrix:

	Factor 1	Factor 2	Factor 3
VAR10	0.38826	0.16874	0.62082
VAR11	0.67703	0.34239	0.19473
VAR12	0.73538	0.13199	0.071317
VAR13	0.73750	0.11867	0.03178
VAR14	0.70275	-0.29533	0.19102
VAR15	0.49368	-0.46830	0.42411
VAR16	0.64594	0.17953	-0.04275
VAR17	0.67467	-0.27266	-0.43077
VAR18	0.64441	0.03911	-0.31421
VAR19	0.61590	-0.23690	-0.16498
VAR20	0.70863	-0.26243	0.16877
VAR21	0.77749	0.00035	-0.33232
VAR22	0.64153	-0.17560	-0.24165
VAR23	0.56860	-0.24913	0.17543
VAR4	0.52383	-0.59186	0.01509
VAR5	0.29746	0.60263	-0.02933
VAR6	0.54954	0.24007	-0.30066
VAR7	0.69900	0.12349	0.12100
VAR8	0.68288	0.38484	0.01952
VAR9	0.62296	0.37764	0.14787

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
VAR10	0.56463	*	1	7.94778	39.7	39.7
VAR11	0.61352	*	2	1.88679	9.4	49.2
VAR12	0.56329	*	3	1.31560	6.6	55.8
VAR13	0.55900	*				
VAR14	0.61757	*				
VAR15	0.64290	*				
VAR16	0.45130	*				
VAR17	0.71508	*				
VAR18	0.51553	*				
VAR19	0.46268	*				
VAR20	0.59951	*				
VAR21	0.71494	*				
VAR22	0.50079	*				
VAR23	0.41615	*				
VAR4	0.62492	*				
VAR5	0.45251	*				
VAR6	0.45002	*				
VAR7	0.51849	*				
VAR8	0.61480	*				
VAR9	0.55256	*				

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3
VAR10	0.53379	-0.28533	0.44530
VAR11	0.72068	0.18399	0.24554
VAR12	0.56564	0.35642	0.34104
VAR13	0.54606	0.39114	0.32837
VAR14	0.26127	0.32844	0.66440
VAR15	0.06995	0.05670	0.79674
VAR16	0.51491	0.38256	0.19954
VAR17	0.08880	0.79122	0.28490
VAR18	0.33441	0.62075	.13552
VAR19	0.15321	0.54225	0.38101
VAR20	0.28314	0.34275	0.63393
VAR21	0.38161	0.72180	0.21979
VAR22	0.19316	0.60505	0.31207
VAR23	0.20961	0.25151	0.55584
VAR4	-0.11682	0.41749	0.66104
VAR5	0.62095	0.08075	-0.24578
VAR6	0.42978	0.51389	-0.03495
VAR7	0.55091	0.29781	0.35538
VAR8	0.70726	0.31545	0.12277
VAR9	0.70098	0.18128	0.16830

B. Depositing With KFH

133 respondents [34.5%] held deposits with KFH at the time of the survey. These respondents were asked to indicate their degree of agreement with the following 20 statements using a five-point scale:

V26 = Deposits of KFH are guaranteed by the Central Banks

V27 = Deposits of KFH are guaranteed by the government

V28 = Deposits with KFH realize a higher rate of return than deposits with other banks

V29 = KFH offers a variety of deposit accounts

V30 = Deposits of KFH are interest-free

V31 = Deposits of KFH are never used for interest-based transactions

V32 = Religious factors are the main reasons for depositing with KFH

V33 = It is easier to read and understand the bank statements of KFH

V34 = The large number of branches of KFH makes it easier to deposit with that bank

V35 = Business hours of KFH are very convenient

V36 = Employees of KFH are very efficient

V37 = It is possible to pay Zakat directly on the returns of deposits with KFH

V38 = KFH contributes to the society's and Muslim nation's development

V39 = KFH has a good reputation

V40 = It is easy to have access to deposits with KFH

V41 = It is easy to borrow at low cost using the security of deposits with KFH

V42 = It is possible to open a deposit account in KFH with a small sum of money

V43 = It is easy to transfer money deposited with KFH to overseas

V44 = KFH offers preference to its depositors when lending money

V45 = I never deposited with any bank other than KFH

Table 8-5 gives the means and standard deviations of scores of variables related to deposits with KFH.

Table 8-5 : Means And Standard Deviations of Scores Related To Deposits With KFH

	Mean	Std. Dev.
VAR26	3.42857	1.00969
VAR27	3.52632	0.98149
VAR28	2.95489	1.14060
VAR29	3.51880	0.82206
VAR30	3.65414	1.33737
VAR31	3.48120	1.27090
VAR32	4.11278	1.13921
VAR33	3.60902	1.02125
VAR34	3.72180	1.06851
VAR35	3.70677	0.95173
VAR36	3.29323	0.96752
VAR37	3.52632	0.96593
VAR38	3.48120	1.04882
VAR39	3.63910	1.05413
VAR40	3.24812	1.02548
VAR41	2.94737	1.12355
VAR42	3.62406	0.90956
VAR43	3.60902	1.02125
VAR44	3.35338	1.00902
VAR45	3.1534	1.35837

The data in Table 8-5 suggests that, once again, adhering to religion [variables 32 and 30] are the main factors which motivate Kuwaitis to deposit with KFH rather than with traditional banks. The data also suggests that convenience in terms of number

of branches [Var 34] and business hours [V35] is a major reason for depositing with KFH. The data in Table 5, however, suggests that returns on deposits [V28] and use of deposits as security for loans [V41] were not so important to the respondents when making a decision to deposit with KFH.

A correlation matrix was constructed based on the survey results. This matrix is given in Table 8-6. The data in this table show high correlation between a number of variables which suggest that factor analysis is appropriate.

Bartlett's test of sphericity was used to test the null hypothesis that the variables are uncorrelated in the population. The test gave a value of 1490.9849 which is highly significant favoring a rejection of the null hypothesis. Also, the Kaiser-Meyer-Olkin [KMO] measure of sampling adequacy was calculated. A value of 0.86862 was obtained which indicate that correlation between pairs of variables can be explained by other variables and hence factor analysis is appropriate.

Table 8-7 shows the application of the principal component analysis to the survey results. The initial statistics show that each of the variables 26,27,38,29 and 30 has an eigenvalue greater than one. These variables account for 68.6 percent of the variance. Thus the 20 explanatory variables can be reduced to only five factors.

Table 8-6 : Correlation Matrix of Variables

Determining Depositing With KFH

	VAR26	**VAR27**	**VAR28**	**VAR29**	**VAR30**	**VAR31**	**VAR32**
VAR26	1.00000						
VAR27	0.76445	1.00000					
VAR28	0.47080	0.42063	1.00000				
VAR29	0.40550	0.47590	0.43721	1.00000			
VAR 30	0.27330	0.23785	0.33237	0.36428	1.00000		
VAR31	0.26904	0.32988	0.25549	0.30308	0 .78953	1.00000	
VAR32	0.35942	0.38691	0.14970	0.26063	0.64736	0.59537	1.00000
VAR33	0.36945	0.41092	0.44650	0.39685	0.24414	0.25696	0.25307
VAR34	0.51160	0.55243	0.38745	0.33805	0.31386	0.30574	0.38694
VAR35	0.39193	0.40978	0.32270	0.27338	0.24112	0.26786	0.22638
VAR36	0.15731	0.25907	0.11505	0.35973	0.40099	0.45120	0.32031
VAR37	0.20196	0.25697	0.28301	0.23550	0.36483	0.29200	0.21415
VAR38	0.42616	0.47332	0.41091	0.51663	0.54083	0.52404	0.44879
VAR39	0.40266	0.47788	0.31400	0.47123	0.66312	0.58300	0.50729
VAR40	0.42332	0.32841	0.41768	0.33142	0.49391	0.45410	0.28714
VAR41	0.35393	0.43750	0.46514	0.40709	0.44659	0.45823	0.30653
VAR42	0.32525	0.27424	0.23911	0.39454	0.37808	0.41328	0.26788
VAR43	0.45761	0.44871	0.39448	0.32466	0.38836	0.42623	0.26610
VAR44	0.25176	0.28505	0.43524	0.37096	0.35512	0.31537	0.20233
VAR45	0.22252	0.26438	0.19955	0.24872	0.43881	0.38766	0.49920

	VAR33	VAR34	VAR35	VAR36	VAR37	VAR38	VAR39
VAR33	1.00000						
VAR34	0.57993	1.00000					
VAR35	0.54367	0.611990	1.00000				
VAR36	0.32392	0.22607	0.20927	1.00000			
VAR37	0.33306	0.25304	0.21860	0.44969	1.00000		
VAR38	0.49526	0.49216	0.33217	0.55420	0.57816	1.00000	
VAR39	0.40276	0.40118	0.34679	0.57252	0.52278	0.73386	1.00000
VAR40	0.38269	0.43682	0.46322	0.26208	0.45607	0.53617	0.51797
VAR41	0.45730	0.37264	0.37512	0.41851	0.36078	0.62597	0.55313
VAR42	0.24835	0.33589	0.29176	0.28978	0.33901	0.43725	0.44212
VAR43	0.44069	0.51051	0.43455	0.24725	0.38682	0.51648	0.50832
VAR44	0.28949	0.21835	0.15606	0.30434	0.38292	0.50385	0.49831
VAR45	0.20772	0.32365	0.26533	0.22320	0.21667	0.33148	0.43117

	VAR40	VAR41	VAR 42	VAR 43	VAR44	VAR45
VAR40	1.00000					
VAR41	0.63606	1.00000				
VAR42	0.49062	0.44011	1.00000			
VAR43	0.56353	0.55634	0.48487	1.00000		
VAR44	0.36855	0.43753	0.41000	0.38506	1.00000	
VAR45	0.34009	0.40181	0.25610	0.36063	0.18593	1.00000

Determinant of Correlation Matrix = 0.0000063

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.86862

Bartlett Test of Sphericity = 1490.9849, Significance = 0.00000

The rotated factor matrix obtained by the varimax procedure suggests that factor 1 has high efficiency for the variables representing religious variables [V30, V31, V32 and V45]. Hence, this factor may be labeled "religious factor". Factor 2 is highly to variables: V40, V41, V42, V43 and V44. These variables represent traditional banking services attached to the holding of a deposit account. Therefore, this factor may be labeled 'traditional services'. Factor 3 is highly related to variables representing guarantees of deposits [V26 and V27] and returns on deposits. This factor may be labeled "security factor". Factor 4 has high coefficients for the variables representing payment of 'Zakat' and community development. This factor may, therefore, be labeled "community services". Finally, factor 5 is highly related to variables representing easiness to read bank statements, number of branches and hours of business. Therefore, this factor may be labeled "convenience". The reproduced correlation matrix suggest that only 35% of the residuals are larger than 0.05 indicating an acceptable model fit.

Table 8-7 : Results of Principal Component Analysis On Deposits With KFH

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct. Of Var	Cum. Pct.
VAR26	1.00000	*	1	8.43927	42.2	42.2
VAR27	1.00000	*	2	1.85745	9.3	51.5
VAR28	1.00000	*	3	1.36169	6.8	58.3
VAR29	1.00000	*	4	1.05512	5.3	63.6
VAR30	1.00000	*	5	1.00272	5.0	68.6
VAR 31	1.00000	*	6	0.78382	3.9	72.5
VAR32	1.00000	*	7	0.71850	3.6	76.1
VAR33	1.00000	*	8	0.68534	3.4	79.5
VAR34	1.00000	*	9	0.60027	3.0	82.5
VAR35	1.00000	*	10	0.54002	2.7	85.2
VAR 36	1.00000	*	11	0.45412	2.3	87.5
VAR37	1.00000	*	12	0.42272	2.1	89.6
VAR38	1.00000	*	13	0.40415	2.0	91.6
VAR39	1.00000	*	14	0.34555	1.7	93.4
VAR40	1.00000	*	15	0.29795	1.5	94.8
VAR41	1.00000	*	16	0.27882	1.4	96.2
VAR42	1.00000	*	17	0.25773	1.3	97.5
VAR43	1.00000	*	18	0.22014	1.1	98.6
VAR44	1.00000	*	19	0.17230	0.9	99.5
VAR45	1.00000	*	20	0.10233	0.5	100.0

Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR26	0.62075	0.44535	0.22284	0.31494	-0.16369
VAR27	0.65665	0.39842	0.21112	0.39503	0.01316
VAR28	0.57554	0.34946	-0.19159	0.14358	-0.30807
VAR29	0.61028	0.11215	-0.12941	0.42161	-0.04070
VAR30	0.69629	-0.48658	0.21890	-0.00859	-0.14271
VAR31	0.67807	-0.44621	0.24815	-0.02603	-0.09347
VAR32	0.58541	-0.33302	0.55647	0.14299	0.02672
VAR33	0.62274	0.36665	-0.06912	-0.10597	0.37363
VAR34	0.66069	0.40869	0.26355	-0.14758	0.20518
VAR35	0.56539	0.41556	0.17802	-0.37574	0.25023
VAR36	0.55231	-0.36365	-0.19429	0.16848	0.51119
VAR37	0.56834	-0.18264	-0.41181	-0.10140	0.25256
VAR38	0.82154	-0.12530	-0.18883	0.11629	0.16727
VAR39	0.81076	-0.27427	-0.04772	0.10782	0.11552
VAR40	0.71892	0.03474	-0.12344	-0.38027	-0.20902
VAR41	0.74465	-0.00558	-0.17900	-0.15091	-0.11554
VAR42	0.59994	-0.07999	-0.17970	-0.17286	-0.27371
VAR43	0.71046	0.16335	-0.06048	-0.28718	-0.16526
VAR44	0.56768	-0.09411	-45738	0.16503	-0.25567
VAR45	0.51882	-0.21228	0.38888	-0.18799	-0.11829

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
VAR26	0.75931	*	1	8.43927	42.2	42.2
VAR27	0.79072	*	2	1.85745	9.3	51.5
VAR28	0.60560	*	3	1.36169	6.8	58.3
VAR29	0.58117	*	4	1.05512	5.3	63.6
VAR30	0.78993	*	5	1.00272	5.0	68.6
VAR31	0.72987	*				
VAR32	0.78442	*				
VAR33	0.67784	*				
VAR34	0.73688	*				
VAR35	0.72785	*				
VAR36	0.76473	*				
VAR37	0.60002	*				
VAR38	0.76779	*				
VAR39	0.75980	*				
VAR40	0.72158	*				
VAR41	0.62270	*				
VAR42	0.50343	*				
VAR43	0.64488	*				
VAR44	0.63291	*				
VAR45	0.51479	*				

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR26	0.20273	0.17567	0.76186	-0.04224	0.32425
VAR27	0.21110	0.06692	0.77796	0.12702	0.34688
VAR 28	-0.01306	0.51316	0.55952	0.03947	0.16574
VAR29	0.13173	0.23926	0.62004	0.34717	0.03986
VAR30	0.76881	0.33107	0.10803	0.27852	0.00124
VAR31	0.75051	0.28473	0.09964	0.26935	0.05518
VAR32	0.82452	-0.05397	0.24443	0.15732	0.13107
VAR33	-0.00608	0.17336	0.28063	0.37274	0.65580
VAR34	0.23319	0.13675	0.35101	0.09862	0.72860
VAR35	0.12892	0.19230	0.12820	0.07299	0.80777
VAR36	0.26094	0.02044	0.06737	0.82503	0.10492
VAR37	0.0 6763	0.39134	-0.00880	0.64072	0.17803
VAR38	0.30738	0 .37317	0.32506	0.61588	0.22154
VAR39	0.48709	0.32981	0.26714	0.56513	0.15178
VAR40	0.28086	0.69424	0.07125	0.12859	0.37298
VAR41	0.25834	0.59437	0.20865	0.29277	0.27100
VAR42	0.25407	0.62172	0.12666	0.15394	0.11222
VAR43	0.23686	0.59650	0.19483	0.09641	0.43094
VAR44	0.04925	0.60794	0.32567	0.36573	-0.14516
VAR45	0.64529	0.20695	0.04168	-0.00449	0.23198

[C] Attitudes Towards KFH Vis-A-Vis Kuwaiti Traditional Banks

195 respondents [51.7%] preferred to deal with conventional banks rather than KFH. These respondents were asked to indicate their reasons for this preferences. They were given the following 20 statements and were told to express their agreement or disagreement using a five-point scale:

V46 = The transactions of the KFH does not differ from those of traditional banks

V47 = It is not true that KFH does not deal in interest

V48 = Most of KFH transactions are based on 'Morabaha' principle which uses riba in a disguised manner

V49 = Deposits of KFH are not guaranteed by the Central Bank

V50 = The cost of borrowing from KFH is too high

V51 = The return on saving with KFH is very low

V52 = It is easier to use the conventional bank credit cards locally or overseas

V53 = The employees of KFH are more efficient than those of the conventional bank

V54 = The hours of business of the KFH are similar to those of other commercial banks

V55 = Conventional banks offer more choices with respect to the type of saving accounts

V56 = It is easier to get loans for any purpose from conventional banks

V57 = It is better to deal at a fixed interest rate rather than a variable rate of profit

V58 = KFH does not give personal loans

V59 = KFH charges total interest on the loan for the whole period of the loan even if the loan was paid earlier

V60 = Borrowing on Musharaka or Mudaraba basis results in business interaction

V61 = There is no difference between statement accounts of KFH and other conventional banks

V62 = Fixed income through a predetermined interest rate is preferred to variable unknown profit

V63 = Borrowing at a fixed interest rate is better than profit sharing

V64 = Bank accounts of the traditional banks cost less to open and keep than accounts in KFH

V65 = It is not necessary to transfer the salary to the conventional banks in order to borrow money

Table 8-8 gives the means and standard deviations of success of variables related to views on dealing with KFH vis-a-vis Kuwaiti traditional banks.

The data in Table 8-8 suggest that respondents who prefer to deal with conventional banks do so because these banks offer better services than KFH, including use of credit cards locally and overseas [V52], availability of a variety of saving accounts [V55], easiness of obtaining loans for any purpose [V56]. The data in Table 8 would also seem to suggest that the respondents do not see much difference in the returns on savings or the cost of borrowing of both types of banks,

Table 8-8 : Mean And Standard Deviations of Scores Related To Views on Dealing Deposits With KFH vis-a-vis Traditional Kuwaiti Banks

	Mean	Std. Dev.
VAR46	3.06034	1.30743
VAR47	2.81034	1.34432
VAR48	2.98276	1.31865
VAR49	2.77586	1.00508
VAR50	3.43103	1.21744
VAR51	3.27586	1.05159
VAR52	3.73276	0.90753
VAR53	3.46966	1 .15185
VAR54	3.31034	1. 05841
VAR55	3.55172	1.00732
VAR56	3.58621	1.12728
VAR57	3.00862	1.35451
VAR58	3.29310	1.23018
VAR59	3.50862	1.26831
VAR60	3.23276	0.93583
VAR61	3.41379	1.03897
VAR62	3.09483	1.18673
VAR63	2.82759	1.27365
VAR64	2.98276	0.97787
VAR65	2.97414	1.21913

A correlation matrix was constructed based on the survey results. This matrix is given in Table 8-9. The data in this table show high correlation between a number of variables which suggest that factor analysis is appropriate. Bartlett's test of sphericity was used to test the null hypothesis that the variables are uncorrelated in the population. The test gave a value of 1092.9646 which is highly significant favoring a rejection of the null hypothesis. Also, the Kaiser-Meyer-Olkin [KMO] measure of sampling adequacy was calculated. A value of 0.83649 was obtained which indicate that correlation between pairs of variables can be explained by other variables and hence factor analysis is appropriate.

Table 8-10 shows the application of the principal component analysis to the survey results. The initial statistics show that each of the variables 46, 47, 48, 49 and 50 has an eigenvalue greater than one. These variables account for 65.6 percent of the variance. Thus the 20 explanatory variables can be reduced to only five factors.

Table 8-9 : Correlation Matrix of Variables Determining Attitudes Towards KFH vis-a-vis Conventional Banks

Correlation Matrix:

	VAR46	VAR47	VAR48	VAR49	VAR50	VAR51	VAR52
VAR46	1.00000						
VAR47	0.32320	1.00000					
VAR48	0.41924	0.52792	1.00000				
VAR49	0.12949	0.30292	0.31199	1.00000			
VAR50	0.07093	0.36386	0.38383	0.34258	1.00000		
VAR51	0.22180	0.24647	0.34836	0.30582	0.49723	1.00000	
VAR52	0.06501	0.14341	0.13418	0.41042	0.37276	0.40594	1.00000
VAR53	0.40374	-0.08046	0.14243	0.11590	0.14273	0.23641	0.27974
VAR54	0.25027	0.12118	0.38392	0.36840	0.27319	0.17242	0.42205
VAR55	0.17918	0.43754	0.40656	0.37228	0.57019	0.50358	0.45756
VAR56	0.12919	0.28631	0.21745	0.15535	0.47324	0.41989	0.30746
VAR57	0.22557	0.45458	0.49180	0.24415	0.37212	0.37071	0.26362
VAR58	-0.06516	0.09700	-0.00222	0. 08173	0.35618	0.34698	0.07856
VAR59	0.00231	0.14887	0.08328	0.21981	0.38052	0.31767	0.15689
VAR60	0.05238	0.20819	0.24991	0.34254	0.41491	0.40249	0.30937
VAR61	0.35274	0.19364	0.21470	0.27279	0.15338	0.29256	0.34886
VAR62	0.29892	0.42017	0.42893	0.25856	0.35666	0.34119	0.32247
VAR63	0.30395	0.42258	0.54703	0.30240	0.30070	0.37992	0.28328
VAR64	0.15045	0.36792	0.33695	0.21722	0.51759	0.48667	0.45529
VAR65	0.18102	0.29410	0.30804	0.26490	0.42941	0.42614	0.32379

	VAR53	VAR54	VAR55	VAR56	VAR57	VAR58	VAR59
VAR53	1.00000						
VAR54	0.45059	1.00000					
VAR55	0.05892	0.28659	1.00000				
VAR56	0.22839	0.16687	0.60866	1.00000			
VAR57	0.14803	0.15582	0.52545	0.49212	1.00000		
VAR58	0.24579	0.03639	0.34554	0.55223	0.18634	1.00000	
VAR59	0.24440	0.17289	0.30253	0.41609	0.28594	0.63371	1.00000
VAR 60	0.13011	0.28638	0.34226	0.40531	0.24526	0.36321	0.50014
VAR61	0.37709	0.31712	0.24525	0.16231	0.24460	0.18322	0.30742
VAR62	0.21733	0.27406	0.37776	0.41309	0.70274	0.09397	0.22766
VAR63	0.08176	0.22065	0.50856	0.41623	0.70653	0.09358	0.20010
VAR64	0.18435	0.23206	0.54824	0.35634	0.53188	0.22110	0.33666
VAR65	0.19394	0.22192	0.42949	0.34647	0.43720	0.34139	0.27852

	VAR60	VAR61	VAR62	VAR63	VAR64	VAR65
VAR60	1.00000					
VAR61	0.40985	1.00000				
VAR62	0.26966	0.39105	1.00000			
VAR63	0.28201	0.24495	0.60348	1.00000		
VAR64	0.28949	0.35800	0.53344	0.39556	1.00000	
VAR65	0.24159	0.37924	0.39238	0.26591	0.56856	1.00000

Determinant of Correlation Matrix = 0.0000384

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.83649

Bartlett Test of Sphericity = 1092.9646, Significance = 0.00000

The rotated factor matrix obtained by the varimax procedure suggests that factor 1 has high coefficients for the variable: Var. 47 [interest-based transactions], Var. 48 [Morabaha transactions] and Var. 63 [borrowing at fixed rates vis-a-vis participation in profit/loss]. We may therefore label this factor "interest-free finance". Factor 2 has high coefficients for variables V52, V64 and V65 represent traditional services. This factor may be labeled "traditional services".

Factor 3 has high coefficients for variables V58 and V59 which represent restrictions in the application of profit/loss principle of finance. This factor may therefore, be labeled "profit/loss sharing factor". Factor 4 has a high coefficient for variable, V53 and V61 which indicates no difference in the nature of transactions of the two type of banks. Hence this factor may be labeled 'similarity in transactions". Finally, factor 5 has a high coefficient for variable 49 which represents security of deposits. This factor may therefore be labeled a risk factor.

Table 8-10 : Results of Principal Component Analysis on Dealing With KFH vis-A-vis Kuwaiti Traditional Banks

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct. Of Var.	Cum. Pct.
VAR46	1.00000	*	1	7.02898	35.1	35.1
VAR47	1.00000	*	2	2.04117	10.2	45.4
VAR48	1.00000	*	3	1.72517	8.6	54.0
VAR49	1.00000	*	4	1.26592	6.3	60.3
VAR50	1.00000	*	5	1.05180	5.3	65.6
VAR51	1.00000	*	6	0.91115	4.6	70.1
VAR52	1.00000	*	7	0.89110	4.5	74.6
VAR53	1.00000	*	8	0.71238	3.6	78.1
VAR54	1.00000	*	9	0.63407	3.2	81.3
VAR55	1.00000	*	10	0.59132	3.0	84.3
VAR56	1.00000	*	11	0.51402	2.6	86.8
VAR57	1.00000	*	12	0.45212	2.3	89.1
VAR58	1.00000	*	13	0.38026	1.9	91.0
VAR59	1.00000	*	14	0.34398	1.7	92.7
VAR60	1.00000	*	15	0.32006	1.6	94.3
VAR61	1.00000	*	16	0.29356	1.5	95.8
VAR62	1.00000	*	17	0.24233	1.2	97.0
VAR63	1.00000	*	18	0.23313	1.2	98.2
VAR64	1.00000	*	19	0.20504	1.0	99.2
VAR65	1.00000	*	20	0.16246	0.8	100.0

Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR46	0.36326	-0.47208	0.36352	0.42241	0.14852
VAR47	0.55019	-0.36211	-0.31974	0.00382	0.28026
VAR48	0.59734	-0.49447	-0.04381	0.02514	0.31458
VAR49	0.50266	-0.07326	0.18216	-0.50729	0.31299
VAR50	0.68236	0.20217	-0.16619	-0.24271	0.04039
VAR51	0.66958	0.15330	-0.01466	-0.06353	-0.09455
VAR52	0.55831	0.06272	0.28888	-0.48763	-0.33810
VAR53	0.35347	0.10172	0.69484	0.35453	-0.11856
VAR54	0.46218	-0.11637	0.57609	-0.23556	0.14591
VAR55	0.75427	0.04607	-0.24247	-0.19161	-0.02582
VAR56	0.65831	0.30901	-0.23192	0.19977	0.01116
VAR57	0.72295	-0.25513	-0.30772	0.21123	-0.14643
VAR58	0.42845	-0.70696	-0.11221	0.30667	0.12724
VAR59	0.51503	0.57511	0.01010	0.21206	0.24175
VAR60	0.56826	0.34167	0.09643	-0.12707	0.39127
VAR61	0.52207	0.00457	0.48320	0.14479	-0.04810
VAR62	0.69619	-0.30668	-0.06946	0.18387	-0.19338
VAR63	0.67051	-0.36609	-0.22931	0.10532	0.06819
VAR64	0.71702	0.00209	-0.09736	-0.06886	-0.42563
VAR65	0.63480	0.08385	-0.00897	0.02435	-0.34434

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct. Of Var.	Cum. Pct
VAR46	0.68745	*	1	7.02898	35.1	35.1
VAR47	0.61463	*	2	2.04117	10.2	45.4
VAR48	0.70283	*	3	1.72517	8.6	54.0
VAR49	0.64652	*	4	1.26592	6.3	60.3
VAR50	0.59464	*	5	1.05180	5.3	65.6
VAR51	0.48503	*				
VAR52	0.75118	*				
VAR53	0.75785	*				
VAR54	0.63580	*				
VAR55	0.66722	*				
VAR56	0.62268	*				
VAR57	0.74849	*				
VAR58	0.80619	*				
VAR59	0.69952	*				
VAR60	0.61820	*				
VAR61	0.52934	*				
VAR62	0.65476	*				
VAR63	0.65194	*				
VAR64	0.70950	*				
VAR65	0.52925	*				

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
VAR46	0.50849	-0.07642	-0.08441	0.64476	-0.01431
VAR47	0.73993	0.1151	0.11166	-0.08972	0.18488
VAR48	0.76160	0.06441	0.00453	0.17696	0.29548
VAR49	0.23049	0.13350	0.08786	0.04154	-0.75242
VAR50	0.25834	0.45412	0.41657	-0.09409	0.37322
VAR51	0.22379	0.48989	0.35610	0.12659	0.22830
VAR52	-0.07626	-0.66189	-0.02103	0.18162	0.52330
VAR53	-0.08864	0.14554	0.18154	-0.83320	0.04024
VAR54	0.09776	0.12954	-0.00311	0.50082	-0.59886
VAR55	0.41489	0.53232	0.33361	-0.09066	0.30367
VAR56	0.29965	0.38293	0.62028	0.03737	-0.01072
VAR57	-0.66994	0.50302	0.18019	0.07813	-0.08984
VAR58	-0.05668	0.15451	0.87653	0.06672	-0.07970
VAR59	0.04239	0.11194	0.80488	0.15710	0.11260
VAR60	0.15378	0.07223	0.58647	0.10604	0.48388
VAR61	0.11621	0.25204	0.17648	-0.61305	0.21292
VAR62	0.57621	0.49720	0.06622	0.26641	-0.01344
VAR63	-0.72767	0.31184	0.10285	0.07979	0.09078
VAR64	0.26516	0.77151	0.15903	0.10935	0.08189
VAR65	0.18524	-0.63691	0.22731	0.18805	0.04742

[IV] Conclusions

The main conclusions of this chapter may be summarized in the following:

{1}. The survey reports suggest that 49.3 percent of the respondents borowed funds from KFH at some time during the last five years, but only 34.5% of the respondents held some type of deposit account with KFH during the time of the survey. The survey also suggests that 51.7 per cent of the population prefer to deal with traditional banks rather than KFH.

{2}. Adhering to Islamic religion, which prohibits using (i.e. paying or receiving) interest is one main variable which motivate Kuwaitis to deal (borrow or deposit funds) with KFH rather than traditional (interest-based) banks.

{3}. Customers who prefer to deal with conventional banks rather than KFH do so because these banks offer better services than KFH, including use of credit cards, locally and overseas, personal loans and varieties of deposit accounts.

{4}. There does not seem to be enough difference between the cost and returns of KFH and other traditional banks to warrant a preference of one type of bank over the other.

{5}. Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling suggest that faction analysis is appropriate in determining the main reasons for preferring one type of bank over the other within the dual-banking system currently operating in Kuwait.

{6}. Application of principal component analysis to survey results suggest that:

i}. Variables responsible for borrowing from KFH rather than interest-based banks can be reduced to three factors, namely: religion, traditional services and terms of borrowing.

ii}. Variables which motivate customers to deposit their savings with KFH rather than traditional bank can be condensed into five factors namely, religion, traditional services, security, community development and convenience.

iii}. Reasons for dealing with interest-based banks rather than KFH can be represented by five factors, namely similarity in the transactions of the two type of banks, applied restrictions of the profit/loss sharing principle, risk, traditional services and religions believes.

{7}. Those respondents who prefer to deal with traditional banks rather than KFH expressed doubts about the interest-free nature of transactions of KFH; fear that their deposits with KFH may not be guaranteed by the Kuwaiti Central Bank, dissatisfaction with current restrictions of the application of the profit/loss sharing principle, particularly in the area of personal loans, belief that the transactions of the two type of banks are very similar and feeling each type of bank provide same traditional services.

Chapter Nine

CONCLUSIONS

The main findings of this study may be summarized in the following:

(1). The literature on Islamic banking and finance though recent is growing fast. Western scholars began to show interest and make substantial contributions. The interdisciplinary nature of the literature offers a challenge. However, there are still numerous questions to be answered, many problems to be solved and a number of challenges to be faced. It is hoped that this thesis made some contribution towards filling in some of the gaps in the existing literature.

(2). Interest-free Islamic banks were established to confirm with Islamic laws (Sharia) which prohibits interest on all types of transactions irrespective of the parties involved in such transactions. It is possible to establish and operate anywhere financial institutions which work on a profit/loss basis rather than on interest-based rate of return. Profit maximization is not the sole objective of Islamic banks. These banks are responsible for wider social welfare of Muslims worldwide.

(3). Islamic banks use the same tools and procedures as traditional (i.e. interest-based) banks in those areas where there is no conflict between banking operations and Islamic principles. These activities include foreign exchange transactions, domestic and international transfers, letters of credit and availing safe custody.

(4). Islamic banks have devised (and still devising) new instruments to enable them achieve their objectives in accordance with Islamic laws. These tools of finance include "Musharaka", "Mudaraba", "Morabaha", "Baa'ye Salam", "Baa'ye Muajjal", "Ijara" and "Ijara-wa-Iktna".

(5). Islamic banks offer a number of accounts that suit their depositors and comply with the profit/loss sharing principles. These products include current accounts, saving accounts, investment accounts and joint investment accounts. Islamic banks also offer Islamic bonds and securities which carry no interest. Moreover, various types of interest-free non-commercial loans based on the profit/loss sharing principle are also available.

(6). Interest-free Islamic Financial Institutions (IFIs) have spread over many countries including non-Muslim developed and developing countries. The movement of establishing interest-free banks and conversion of banking operations into the interest-free mode is still in progress. During the last five years, 23 IFIs were established in different countries; out of which 17 were established in Indonesia alone.

(7). "Morabaha" has become one of the most popular financing techniques among Islamic banks. It has been estimated that 70 to 80 percent of total finance provided by Islamic banks is done through "Morabaha". These operations are practiced by Islamic Financial Institutions under several names such as "Mark-ups", "cost-plus financing", "production support programme", "short-term financing" or simply "sales-purchase contract."

(8). Empirical evidence is produced in this study to assess the differences in financial characteristics of interest-free and conventional banks. The main findings of this evidence are:

(i) A simple examination of the means and standard deviations of 20 financial ratios suggests that Islamic banks are separated from traditional banks in terms of 12 ratios and share similarity in terms of the other eight ratios.

(ii) When the predictors are considered individually, 15 financial ratios out of the 20 ratios considered, significantly differentiate between Islamic and non-Islamic banks. These five ratios which do not seem to separate the

two groups of banks are the earning assets to assets ratio, the investment and deposit income ratio, the other assets to assets ratio, the operating income to assets ratio and the return on deposits.

(iii) The discriminant function applied to the data seems to be a good fit. The canonical correlation associated with this function is 0.9986 which indicates that 99.36% of the variance in the dependent variable (difference in the type of banking) is explained or accounted for by the model. The null hypothesis of no discrimination between the two type of banks is rejected at a significant level beyond the 0.00001 level.

(iv) Discriminant analysis results suggest that the two type of banks are differentiated in terms of liquidity, leverage and credit risk but not in terms of profitability or efficiency.

(v) It would be very difficult to wrongly classify a bank in some group (e.g. interest-free banks) into the other group (interest-based) banks. The hit ratio for the sample in this study is 100%.

(9). The empirical evidence produced in this study regarding the client's decision to deal with a particular type of bank, within a dual banking system, suggest that:

(i) The more strict the country with respect to Islamic teachings, as evidence from its civil laws, traditions and way of life, the larger the proportion of its population which selects to deal with Islamic banks. Thus, the proportion of population which deals with interest-free banks in Saudi Arabia is much higher than its counterpart in Egypt and the UAE. Similarly, the proportion of population which deals with Islamic Financial Institutions in the UAE is greater than its Egyptian counterpart.

(ii) Selection of an Islamic bank, though depending heavily on religious factors, is also affected by such factors as banking services, convenience, visibility and staff competence.

(iii) The mean values of age and income of persons dealing with Islamic banks differ from those of persons dealing with traditional banks. Also, those who deal with Islamic banks seem to occupy different occupations from those who deal with conventional banks.

(iv) The logit and probit analysis suggest that age, income and occupation have significant effects on the probability of banking with an interest-free (Islamic) bank operating in a dual banking system:

{a} The probability of dealing with an Islamic bank increases with the increase in age.

{b} As income increases, the probability of dealing with an Islamic bank decreases.

{c} Salary earners have a higher probability of dealing with Islamic banks (particularly obtaining funds on "Morabaha" basis) than self-employed persons.

(v) The effect of the level of education on the probability of dealing with an Islamic bank is not uniform amongst Middle Eastern countries which enjoy a dual-banking system. The education variable has a significant negative effect on the probability of dealing with an Islamic bank in Egypt but not in Saudi Arabia or the UAE.

(10). The empirical evidence produced in this study regarding the effect of the profit/loss sharing principle on the performance of the commercial loans market would seem to suggest that:

(i) The performance of the commercial loans market within a dual banking system can be represented by a demand-supply model which can be tested using a simultaneous-equation model. However, each type of banking system (i.e. interest-based and interest-free banks) requires a different model since the mode of operation is completely different. Although there are many common variables, the supply function is highly distinguished in the two cases.

(ii) The commercial loans market in a dual banking system is cleared through changes in the price of loanable funds. The price is represented by the rate of interest in the case of the conventional banks and the profit/loss sharing rate of return in the case of interest-free Islamic banks. The price has a negative effect on the demand for commercial loans and a positive effect on the supply of loans.

(iii) The supply of loans by conventional banks is influenced by the alternative rate of interest which these banks can obtain through investment in securities (government bonds, treasury bills etc). This alternative does not exist for Islamic banks which do not deal in interest. Thus these banks are limited in their scope of finance.

(iv) Borrowings from both the conventional banks and the interest-free banks operating side-by-side is strongly affected by the expectations concerning the future level of activity. The demand for loanable funds, in a dual banking system, is positively correlated with the rate of growth of GDP.

(v) The demand for funds offered by Islamic banks is strongly influenced by the interest charges of the conventional banks operating side-by-side. However, the profit/loss sharing rate of Islamic banks does not seem to

exert any significant influence on borrowing from interest-based banks operating within the dual banking system. This suggests that customers used to the traditional methods of finance may not shift to the profit/loss sharing principles even if it was relatively cheaper to obtain funds on this principle.

(11). To find out whether Islamic banks' transactions are truly free of all traces of interest, a case study was taken and analyzed in details. An analysis of Kuwait Finance House (KFH), the oldest and largest interest-free bank in Kuwait, suggest that:

(i) The company is not a mere bank. It acts as a financier, contractor, developer, lessor, real estate agent and even a speculator. It receives a profit margin for its financial activities. The calculation of this margin, particularly when the repayment is made over installments, may introduce interest charges from the back door.

(ii) An analysis of KFH balance sheet suggests that the transactions of this company can not be labeled purely interest-free. The company holds government debt bonds, securities and portfolios which pay fixed interest.

(iii) KFH avoids long-term investments. Less than 5 percent of the receivables have a residual maturity over 5 years.

(iv) The gains in profits of KFH went largely to its shareholders rather than its depositors who are supposed to share the profit (and losses) with this interest-free bank. Actually, the KFH's rate of return on deposits is very similar to the rate of interest paid by the Kuwait Commercial banks to these banks depositors.

(12). Empirical evidence produced in this study regarding consumers' perception of Islamic banking suggest that:

(i) Well over half the Kuwaiti population prefer to deal with conventional banks rather than Kuwait Finance House (KFH).

(ii) Adhering to Islamic religion, which prohibits using (i.e. paying or receiving) interest is one main factor which motivates Kuwaitis to deal (obtain or deposit funds) with KFH rather than traditional (interest-based) banks.

(iii) Customers who prefer to deal with conventional banks rather than KFH do so because these banks offer better services than KFH, including use of credit cards locally and overseas, personal loans and varieties of deposits accounts.

(iv) There does not seem to be enough difference between the cost of obtaining funds and returns on deposits of KFH and other traditional banks to warrant preference of one type of bank over the other in this respect.

(v) Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling suggests that factor analysis is appropriate in determining the main reasons for preferring one type of bank over the other within the dual-banking system currently operating in Kuwait.

(vi) Application of principal component analysis to survey results suggest that:

{a} Variables responsible for borrowing from KFH rather than interest-based banks can be reduced to three factors, namely: religion, traditional services and terms of borrowing.

{b} Variables which motivate customers to deposit their savings with KFH rather than traditional banks can be condensed into five factors, namely: religion, traditional services, security, community development and convenience.

{c} Reasons for dealing with interest-based banks rather than KFH can be represented by five factors, namely: similarity in the nature of the transactions of the two type of banks, as perceived by the clients, applied restrictions of the profit/loss sharing principle, risk, traditional services and religious believes.

(vii) Those respondents who prefer to deal with traditional banks rather than KFH expressed doubts about the interest-free nature of the transactions of KFH; fear that their deposits with KFH may not be guaranteed by the Central Bank; dissatisfaction with current restrictions of the application of the profit/loss sharing principle, particularly in the are of personal loans; belief that the transactions of the two type of banks are very similar and feeling that each type of bank provides same traditional services.

While there is scope for further research into the problems faced by Islamic banking, the above findings bridge some of the gaps in the existing literature on Islamic banking and finance.

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APPENDICIES

APPENDIX 1

Data on Financial Ratios of Islamic and NonIslamic Banks

	bank	ca	laa	lad	ia	la	ld	faa
1	1	7.252	44.46	62.66	39.18	36.18	56.19	11.18
2	1	6.879	48.98	58.18	37.46	41.20	55.48	11.46
3	1	7.310	51.44	60.26	36.55	38.36	59.68	10.22
4	1	6.887	49.38	57.39	36.18	35.24	57.43	8.35
5	1	8.253	47.92	58.22	38.29	36.80	55.78	10.36
6	1	4.642	48.99	63.48	37.54	34.91	59.60	9.41
7	1	5.916	53.51	65.26	41.22	42.82	51.22	8.55
8	1	8.276	46.74	64.20	34.26	43.65	50.17	11.33
9	1	6.005	50.21	61.56	36.91	39.15	58.78	10.22
10	1	7.192	51.22	62.42	35.36	40.22	53.12	11.26
11	1	4.389	50.12	69.76	40.22	41.21	52.78	7.54
12	1	8.245	56.18	65.81	47.36	34.32	56.12	12.11
13	0	4.728	36.79	42.22	22.18	59.18	71.21	4.21
14	0	4.382	35.18	41.36	23.44	60.22	69.70	3.81
15	0	4.606	37.92	44.55	22.16	55.33	71.73	4.62
16	0	3.976	38.12	49.21	25.36	56.44	68.76	3.91
17	0	4.712	37.16	44.33	23.77	60.18	66.75	4.24
18	0	3.976	41.41	46.22	24.86	58.44	69.33	5.26
19	0	4.816	33.46	46.28	25.43	55.59	70.51	4.36
20	0	3.999	35.12	41.78	23.55	60.32	72.67	6.32
21	0	4.512	36.18	45.91	25.42	59.22	69.70	4.12
22	0	5.116	33.20	47.66	27.33	55.26	65.18	3.18
23	0	5.324	32.15	40.18	26.41	58.68	72.22	5.44
24	0	4.728	29.18	40.33	25.28	56.71	70.19	3.22
25	0	4.769	31.11	41.27	22.16	59.79	68.76	3.19
26	0	4.341	35.46	44.36	23.18	59.12	70.12	3.16
27	0	4.618	34.26	43.63	24.46	61.62	69.28	2.26
28	0	4.692	36.19	44.91	23.29	58.42	71.38	4.36
29	0	4.387	33.24	42.44	25.77	57.26	69.71	3.49
30	0	4.592	32.79	43.62	26.33	61.22	72.14	2.16
31	0	6.821	32.18	44.51	27.19	50.18	74.18	3.29

	bank	ca	laa	lad	ia	la	ld	faa
32	0	5.310	34.46	40.28	28.14	55.14	70.16	4.12
33	0	4.601	35.71	41.83	26.15	52.26	69.12	3.77
34	0	3.876	33.96	42.26	27.22	54.59	67.22	3.07
35	0	4.916	36.24	43.13	23.76	53.62	68.74	2.43
36	0	4.824	38.19	41.46	23.33	52.61	66.23	3.56
37	0	4.312	32.27	40.87	23.18	57.69	67.57	4.62
38	0	4.916	30.76	39.38	24.12	61.81	69.28	5.11
39	0	4.522	35.24	44.22	25.74	56.22	72.18	4.67
40	0	4.711	33.69	41.19	23.86	58.33	76.54	3.29
41	0	4.875	36.20	44.34	22.48	56.42	71.12	2.91
42	0	4.641	35.23	41.86	23.65	55.91	68.16	3.87
43	0	5.212	31.27	40.22	24.21	54.23	66.17	4.62
44	0	5.046	30.76	39.36	23.91	58.26	65.27	3.66
45	0	4.816	33.11	43.48	24.26	59.36	69.76	4.69
46	0	4.454	34.12	40.91	23.28	58.58	65.33	3.65
47	0	4.682	35.16	44.55	24.29	59.64	67.28	5.05
48	0	5.741	30.71	42.41	25.36	60.71	64.91	4.15

	oaa	eaa	ae	ea	da	oia	idir	oea
1	4.14	90.50	5.46	17.38	65.3	7.92	5.29	5.86
2	3.48	92.30	6.12	16.54	60.2	8.94	5.34	6.32
3	4.26	94.60	5.76	16.98	64.1	8.23	5.31	6.16
4	4.36	90.80	4.89	19.10	61.6	7.94	5.11	5.72
5	3.18	90.10	6.33	16.74	66.5	8.06	5.56	5.46
6	2.18	94.20	5.89	17.01	63.2	7.99	5.77	5.68
7	2.39	89.60	4.66	19.72	59.6	8.16	5.12	6.21
8	3.48	94.30	6.72	14.89	60.7	7.95	5.34	6.33
9	3.61	90.20	5.33	17.76	61.4	8.07	5.68	6.04
10	2.76	90.70	4.46	21.24	60.0	7.82	5.92	5.82
11	3.26	90.50	6.12	17.78	59.2	8.11	6.04	4.91
12	2.54	91.60	5.79	20.43	60.8	8.32	6.23	5.99
13	3.23	92.00	16.18	7.23	71.3	8.44	5.14	4.96
14	3.65	92.70	18.23	6.84	74.5	8.45	5.26	5.49
15	3.41	91.80	15.54	6.91	77.7	7.95	5.71	5.28
16	3.36	91.60	16.22	7.35	80.0	7.67	5.35	5.77
17	3.22	90.90	15.92	7.29	78.3	8.09	5.45	6.03
18	3.51	91.60	14.89	6.77	74.6	8.13	5.36	5.72
19	3.16	90.20	15.15	7.14	71.4	8.24	6.00	6.96
20	3.24	90.70	18.22	6.23	75.9	8.35	5.23	5.84
21	3.46	92.40	16.33	5.98	74.8	7.98	5.12	5.66
22	3.58	91.50	14.89	7.12	80.2	7.79	5.36	6.08
23	2.46	92.00	14.76	6.82	71.9	7.88	5.29	6.34
24	2.79	91.90	15.24	7.39	74.5	8.13	5.66	5.91
25	4.12	90.80	16.28	8.54	73.1	8.24	5.02	5.42
26	3.16	90.60	16.14	7.31	79.4	8.12	5.12	4.76
27	2.77	91.70	15.82	6.18	82.3	7.96	4.89	4.28
28	3.04	90.90	18.64	7.22	80.6	7.56	6.23	4.66
29	2.91	92.30	15.01	5.39	78.9	8.32	5.54	5.35
30	4.11	93.40	16.44	6.12	81.2	8.49	5.72	5.29
31	3.21	90.80	15.82	7.22	78.6	7.77	5.16	4.87

	oaa	eaa	ae	ea	da	oia	idir	oea
32	2.56	91.20	15.71	6.54	75.4	7.98	5.47	5.14
33	3.51	92.30	14.63	5.98	80.3	7.64	5.38	5.92
34	2.94	90.70	16.82	6.32	79.9	8.21	5.62	4.68
35	2.87	94.60	15.46	6.77	76.8	8.07	6.02	5.26
36	3.16	91.70	14.77	7.14	76.4	8.13	5.48	6.01
37	3.22	93.20	18.51	7.45	82.5	7.75	5.92	5.32
38	2.76	93.60	16.12	6.89	73.6	7.68	5.78	4.32
39	2.94	93.40	14.36	8.25	74.9	8.26	5.21	4.18
40	3.65	90.80	16.01	8.13	70.2	8.94	5.63	4.69
41	4.11	90.60	15.92	8.82	75.6	7.61	5.92	4.75
42	3.81	94.50	14.67	7.92	79.7	8.13	5.17	4.32
43	2.16	90.70	18.55	6.86	83.4	8.55	5.55	5.06
44	3.67	92.20	16.73	6.71	81.5	8.13	4.89	5.22
45	2.79	93.40	15.11	6.74	79.1	7.34	6.25	5.31
46	3.66	92.60	16.29	8.92	78.2	8.19	6.32	4.65
47	4.01	93.10	15.84	7.63	74.8	7.76	5.86	4.97
48	4.22	91.00	17.61	8.21	71.8	7.88	5.79	4.82

	eea	pa	pe	rd	pltl
1	2.04	.93	10.64	8.41	4.82
2	2.16	.88	9.82	7.93	3.97
3	1.98	.92	10.01	8.06	6.86
4	1.76	.94	9.35	8.72	7.92
5	1.84	.87	9.21	8.14	4.16
6	1.77	.88	8.64	8.73	5.22
7	1.65	.92	10.16	8.00	4.69
8	1.53	.97	10.34	7.78	3.14
9	2.11	.83	8.59	8.16	4.25
10	2.03	.81	10.22	7.93	4.67
11	1.71	.92	8.64	8.14	3.89
12	1.66	.95	8.33	8.64	4.76
13	1.72	.86	13.72	8.82	12.79
14	1.64	.94	13.91	8.15	16.52
15	1.53	.89	14.65	7.93	15.12
16	1.59	.88	15.01	8.16	11.37
17	2.01	.92	14.62	8.09	12.69
18	1.88	.94	15.33	7.89	13.71
19	1.72	.85	14.65	8.82	15.62
20	1.68	.83	13.82	8.33	14.95
21	1.59	.82	14.61	8.05	16.89
22	1.43	.90	13.92	7.82	17.22
23	1.77	.83	15.11	7.64	18.66
24	1.81	.85	13.72	8.32	11.95
25	1.77	.86	14.62	8.16	14.62
26	1.76	.90	14.15	8.12	17.24
27	1.59	.88	14.72	8.34	18.61
28	1.68	.85	13.89	8.02	15.43
29	1.92	.84	15.11	8.35	16.76
30	2.03	.81	12.98	7.92	13.28
31	1.88	.86	16.44	7.68	14.68

	eea	pa	pe	rd	pltl
32	1.73	.92	15.19	7.74	15.97
33	1.75	.94	13.02	8.62	12.80
34	1.59	.93	12.87	8.51	16.52
35	1.68	.80	13.76	7.66	17.93
36	1.73	.78	14.13	8.16	18.75
37	1.52	.82	14.55	7.25	12.36
38	1.64	.76	14.02	7.87	15.98
39	1.76	.81	13.68	8.37	19.29
40	1.59	.83	13.92	8.19	18.67
41	1.88	.85	15.14	7.99	17.61
42	1.92	.87	16.72	7.77	15.43
43	1.73	.88	14.21	8.17	16.02
44	1.80	.79	14.36	8.09	15.85
45	2.11	.95	14.11	8.36	17.34
46	1.62	.86	13.78	8.52	16.14
47	1.77	.87	14.92	7.76	15.56
48	1.66	.80	15.31	8.36	16.55

APPENDIX 2

A Copy of the Questionnaire Used in the Survey Regarding KFH

A Questionnaire on Transactions with Islamic and Non-Islamic Banks

إستقصاء خاص بمعاملات البنوك الإسلامية وغير الإسلامية

رجاء وضع العلامة x على الإجابة المختارة:

Please put the mark x on your chosen answer.

(1) هل تعاملت مع بيت التمويل الكويتي خلال الخمس سنوات الماضية؟

1. Have you ever dealt with Kuwait Finance House in the last five years?

No ☐ لا Yes ☐ نعم

(2) إذا كانت الإجابة على السؤال (1) نعم ، هل تمتلك حاليا حساب مع بيت التمويل الكويتي؟

2 If the answer to question (1) is yes, do you currently hold an account with Kuwait Finance House?

No ☐ لا Yes ☐ نعم

(3) هل إقترضت خلال الخمس سنوات الماضية من بيت التمويل الكويتي لأي غرض كان (شراء سيارة - تمويل مشروع ..... أخ؟

3. Have you ever borrowed money from Kuwait Finance House over the last five years for any prupose whatsoever (e.g. to finance a car, a project ...etc.)?

No ☐ لا Yes ☐ نعم

(4) إذا كان الجواب على السؤال (3) "نعم" ، ماهي أهم الأسباب التي دعتك إلى الإقتراض من بيت التمويل الكويتي وليس من البنوك التجارية العادية؟

4. If the answer to question (3) is "Yes", what are the main reasons which made you choose this particular bank and no other bank?

	أسباب تفضيل الإقتراض من بيت التمويل الكويتي Reason for borrowing from Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
1	لايتعامل بيت التمويل بالربا. Kuwait Finance House is an interest free-bank.					
2	صعوبة الحصول على القرض المطلوب من البنوك العادية. It is difficult to obtain the loans from other banks.					
3	تكلفة قروض بيت التمويل أقل من البنوك العادية. Cost of finance is less with Kuwait Finance House.					
4	موظفي بيت التمويل أكثر كفاءة من موظفي البنوك العادية. Employees of Kuwait Finance House are more efficient.					
5	ساعات عمل بيت التمويل أكثر ملاءمة. The hours of business of Kuwait Finance House are more convenient.					
6	يمنح بيت التمويل القرض لفترات طويلة نسبيا. The loans of Kuwait Finance House extends over longer periods of time.					
7	الإقتراض من بيت التمويل تم بناء على توصية الأهل والأصدقاء. Borrowing from Kuwait Finance House was recommended by friends and relatives.					

	أسباب تفضيل الإقتراض من بيت التمويل الكويتي Reason for borrowing from Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
8	يسهل قراءة كشوف حسابات بيت التمويل الكويتي. It is easier to read Kuwait Finance House's statements.					
9	من أهم دوافع التعامل مع بيت التمويل الكويتي هو أنه يقدم خدمات عديدة للمجتمع. Community services is one important reason for dealing with Kuwait Finance House.					
10	معاملات بيت التمويل الكويتي سريعة. The transactions of Kuwait Finance House are carried out in a speedy manner.					
11	بيت التمويل الكويتي يتمتع بسمعة طيبة. Kuwait Finance House enjoys a good reputation.					
12	النزعة الدينية هي أهم دوافع التعامل مع بيت التمويل الكويتي. Religion is the main reason for dealing with Kuwait Finance House.					
13	يقدم بيت التمويل الكويتي خدمات فريدة لاتقدمها البنوك التجارية الأخرى. Kuwait Finance House offers unique services.					

	أسباب تفضيل الإقتراض من بيت التمويل الكويتي Reason for borrowing from Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
14	معاملات بيت التمويل الكويتي عادلة عند الإقتراض والتسديد. The transactions of Kuwait Finance House are fair when borrowing and paying back.					
15	يمكن الإقتراض من بيت التمويل بسهولة لأي غرض كان. It is easier to borrow from Kuwait Finance House for whatever purpose.					
16	ليس هناك أي مشاكل إذا حدث تأخير في سداد قروض بيت التمويل الكويتي. There are no serious problems if repayment of the instalments was delayed.					
17	موظفي بيت التمويل الكويتي متفاهمون ومتعاونون. The employees of Kuwait Finance House are understanding and helpful.					
18	شروط تمويل بيت التمويل الكويتي سهلة وعادلة. The terms of borrowing of Kuwait Finance House are easy and just.					
19	يسهل تسديد القرض في أي وقت مع تخفيض التكاليف. The loan can be repayed at any time at reduced cost.					

أعترض بشدة Strongly Disagree	أعترض Disagree	غير موافق وغير معترض Neither Agree Nor Disagree	أوافق Agree	أوافق بشدة Strongly Agree	أسباب تفضيل الإقتراض من بيت التمويل الكويتي Reason for borrowing from Kuwait Finance House	
					لم نتعامل مع أي بنك آخر غير بيت التمويل الكويتي. We never dealt with any other bank except Kuwait Finance House.	20

(5) هل تحتفظون بودائع في بيت التمويل الكويتي؟

5. Do you hold any saving with Kuwait Finance House?

Yes ☐ نعم　　No ☐ لا

(6) إذا كانت الإجابة على السؤال السابق "نعم" ، أي نوع من هذه الودائع تحتفظون في بيت التمويل الكويتي؟

6. If the answer to the above question is "Yes" what kindly of deposits do you keep with Kuwait Finance House?

Demand Deposit ☐ ودائع تحت الطلب

Saving Deposit ☐ ودائع إدخارية

Time Deposit ☐ ودائع لأجل

(7) إذا كانت الإجابة على السؤال (5) أعلاه "نعم" ، ماهي أهم الدوافع التي جعلتكم تحتفظون بودائع في بيت التمويل الكويتي؟

7. If the answer to question (5) above is "Yes", what are the main motives for keeping deposits with Kuwait Finance House?

	دوافع الإحتفاظ بودائع في بيت التمويل الكويتي Motives for holding deposits with Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
1	ودائع بيت التمويل الكويتي مضمونة من جانب البنك المركزي. The deposits of Kuwait Finance House are guaranteed by the Central Bank.					
2	ودائع بيت التمويل الكويتي مضمونة من جانب الحكومة الكويتية. The deposits of the Kuwait Finance House are guaranteed by the government.					
3	ودائع بيت التمويل الكويتي تحصل على عائد أكثر من ودائع البنوك التجارية العادية. Deposits with Kuwait Finance House realise a higher rate of return than deposits with other banks.					
4	يعرض بيت التمويل الكويتي أنواعا متعددة من حسابات الودائع. Kuwait Finance House offers a variety of deposit accords.					
5	ودائع بيت التمويل الكويتي غير ربوية. The deposits of Kuwait Finance House are interest-free.					

	دوافع الإحتفاظ بودائع في بيت التمويل الكويتي Motives for holding deposits with Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
6	لاتستخدم ودائع بيت التمويل الكويتي في تمويل عمليات ربوية. The deposits of Kuwait Finance House are never used in financing interest-based transactions.					
7	الناحية الدينية هي أهم دافع للإحتفاظ بودائع بيت التمويل الكويتي. Religious factors are the main reasons for depositing with the Kuwait Finance House.					
8	يسهل قراءة كشوف الحسابات الخاصة ببيت التمويل الكويتي. It is easy to read and understand the statements of Kuwait Finance House.					
9	تعدد فروع بيت التمويل يجعل من السهولة الإيداع فيه. The large number of branches of Kuwait Finance House makes it easier to deposit with that bank.					
10	أوقات عمل بيت التمويل الكويتي ملائمة جدا. Time of business of Kuwait Finance House is very convenient.					

	دوافع الإحتفاظ بودائع في بيت التمويل الكويتي Motives for holding deposits with Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
11	موظفي بيت التمويل الكويتي يتمتعون بكفاءة عالية. Employees of Kuwait Finance House are very efficient.					
12	يمكن دفع الزكاة مباشرة على عائد المدخرات مع بيت التمويل الكويتي. It is possible to pay Zakat directly on the returns of deposits with Kuwait Finance House.					
13	بيت التمويل الكويتي يساعد في عملية تنمية المجتمع والأمة الإسلامية. Kuwait Finance House contributes to the society's and Muslim nation's development.					
14	يتمتع بيت التمويل الكويتي بسمعة طيبة. Kuwait Finance House has a good reputation.					
15	يمكن سحب الودائع بسهولة حتى قبل إنتهاء مدة الوديعة. It is easy to have access to deposits with Kuwait Finance House.					
16	يمكن الإقتراض بسهولة بتكلفة منخفضة بضمان المدخرات. It is easy to borrow at low cost using the security of deposits with Kuwait Finance House.					

	دوافع الإحتفاظ بودائع في بيت التمويل الكويتي Motives for holding deposits with Kuwait Finance House	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
17	يمكن فتح حساب ودائع بمبالغ صغيرة. It is possible to open a deposit account.					
18	يمكن تحويل مبالغ بسهولة لخارج البلاد أو داخلها. It is easy to transfer money domestically and overseas.					
19	يعطي بيت التمويل أفضلية لمودعيه عند الإقتراض. Kuwait Finance House offers preference to its depositors when borrowing funds.					
20	لم أودع في أي بنك غير بيت التمويل الكويتي. I never deposited with any other bank other than Kuwait Finance House.					

(8) إذا كنت تفضل التعامل مع البنوك التجارية العادية على التعامل مع بيت التمويل الكويتي ، فما هي أهم الأسباب التي تدعو إلى ذلك؟

8. If you prefer to deal with conventional commercial banks rather than the Kuwait Finance House, what are the main reasons for this?

	أسباب تفضيل التعامل مع البنوك العادية Reasons for prefering to deal with Conventional Commercial Banks	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
1	معاملات بيت التمويل لاتختلف في حقيقتها عن معاملات البنوك التجارية العادية. The transactions of Kuwait Finance House do not differ from those of commercial banks.					
2	غير حقيقي أن بيت التمويل لايتعامل بالربا. It is not true that Kuwait Finance House does not deal in Interest.					
3	معظم عمليات بيت التمويل تتعلق بمبدأ المرابحة وهو نظام ربوي ولكن بشكل متخفي. Most of the transactions of Kuwait Finance House are based on "Morabaha" principle, which uses Riba in a disguised manner.					
4	ودائع بيت التمويل الكويتي غير مضمونة من جانب البنك المركزي. The Deposits of Kuwait Finance House are not guaranteed by the Central Bank.					
5	تكاليف قروض بيت التمويل مرتفعة. The cost of borrowing from Kuwait Finance House is too high.					

أعترض بشدة Strongly Disagree	أعترض Disagree	غير موافق وغير معترض Neither Agree Nor Disagree	أوافق Agree	أوافق بشدة Strongly Agree	أسباب تفضيل التعامل مع البنوك العادية Reasons for prefering to deal with Conventional Commercial Banks	
					عائد المدخرات مع بيت التمويل منخفض. The return on saving with Kuwait Finance House is too low.	6
					من السهل إستخدام بطاقات إئتمان البنوك الإئتمانية العادية داخل وخارج البلاد. It is easier to use the conventional bank credit cards locally and overseas.	7
					موظفي بيت التمويل لايختلفون في كفاءاتهم عن موظفي البنوك العادية. The employees of Kuwait Finance House are not more efficient than those of the conventional banks.	8
					أوقات عمل بيت التمويل لاتختلف كثيرا عن تلك الخاصة بالبنوك التجارية العادية. The hours of business of Kuwait Finance House are similar to those of other commercial banks.	9
					تعطي البنوك التجارية العادية إختيارات أكبر في نوعية حسابات الودائع المتوافرة للعميل. The conventional banks offer more choices with respect to the type of saving accounts.	10

	أسباب تفضيل التعامل مع البنوك العادية Reasons for prefering to deal with Conventional Commercial Banks	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق ولا معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
11	يسهل الحصول على القروض لأي غرض من البنوك التجارية العادية. It is easy to get loans for any pruposes from conventional banks.					
12	من الأفضل التعامل بسعر فائدة محدد على التعامل بربحية غير محددة. It is better to deal at a fixed interest-rate rather than a variable rate of profit.					
13	بيت التمويل الكويتي لايمنح قروض شخصية. Kuwait Finance House does not give personal loans.					
14	بيت التمويل الكويتي يطالب بجميع الفوائد على القرض حتى نهاية المدة رغم التسديد المبكر. Kuwait Finance House charges all interest to the end of the duration of the loan even if the loan was paid earlier.					
15	الإقتراض من بيت التمويل لأغراض المشاركة والمضاربة يؤدي إلى تدخل كبير من جانب الممول. Borrowing on Musharaka or Mudaraba basis results in business interaction.					

	أسباب تفضيل التعامل مع البنوك العادية Reasons for prefering to deal with Conventional Commercial Banks	أوافق بشدة Strongly Agree	أوافق Agree	غير موافق وغير معترض Neither Agree Nor Disagree	أعترض Disagree	أعترض بشدة Strongly Disagree
16	لاتختلف كشوف حسابات بيت التمويل عن تلك الخاصة بالبنوك التجارية العادية. There is no difference between statement accounts of Kuwait Finance House and other conventional banks.					
17	الدخل الثابت من سعر الفائدة الذي تدفعه البنوك التقليدية أفضل بكثير من دخل الربحية المتقلب وغير المعروف مقدما الذي يدفعه بيت التمويل الكويتي. Fixed income through a predetermined interest rate is prefered to variable unknown profit.					
18	الإقتراض بسعر فائدة أفضل من المشاركة في الربحية. Borrowing at a fixed interest rate is better than profit sharing.					
19	تقل تكلفة فتح وإمتلاك حسابات بالبنوك التقليدية عن نظيرها في بيت التمويل الكويتي. Bank accounts of the traditional banks cost less to open and keep than accounts in Kuwait Finance House.					

أعترض بشدة Strongly Disagree	أعترض Disagree	غير موافق وغير معترض Neither Agree Nor Disagree	أوافق Agree	أوافق بشدة Strongly Agree	أسباب تفضيل التعامل مع البنوك العادية Reasons for prefering to deal with Conventional Commercial Banks	
					لايشترط تحويل الراتب لغرض الإقتراض من البنوك التجارية العامة. It is not necessary to transfer the salary to the conventional banks in order to borrow money.	20

(9) هل تفكر في نقل حساباتك من بيت التمويل الكويتي إلى بنك تجاري عادي أو العكس؟

9. Do you consider transferring your accounts from a conventional commercial bank to Kuwait Finance House or the other way round?

Yes ☐ نعم　　No ☐ لا

(10) رجاء إعطاء المعلومات الآتية عن صفاتكم الشخصية دون ذكر أسماء.

10. Please answer the following questions about your personal characteristics without mentioning any names.

(i) Sex : الجنس

Male ☐ ذكر　　Female ☐ أنثى

(ii) Age : العمر

Less than 21	☐	أقل من 21 سنة
21 and less than 25	☐	21 وأقل من 25 سنة
25 and less than 35	☐	25 وأقل من 35 سنة
35 and less than 45	☐	35 وأقل من 45 سنة
45 or more	☐	45 سنة أو أكثر

(iii) Monthly family income: دخل الأسرة الشهـــري

Less than 500 KD	☐	أقل من 500 دينار
500 and less than 750 KD	☐	500 وأقل من 750 دينار
750 and less than 1000 KD	☐	750 وأقل من 1000 دينار
1000 and less than 1500 KD	☐	1000 وأقل من 1500 دينار
1500 and less than 2000 KD	☐	1500 وأقل من 2000 دينار
More than 2000 KD	☐	أكثر من 2000 دينار

(iv) Education : الحالة التعليمية

Primary	☐	تعليم إبتدائي
Intermediate	☐	تعليم متوسط
Secondary	☐	تعليم ثانوي
Diploma after High School	☐	دبلوم بعد الثانويـــة
Holds a first University Degree	☐	مؤهل جامعي أول
Higher Education	☐	تعليم عالـــي

(v) Occupation : الوظيفة

Public servant	☐	موظف حكومي
Employee in a private organization	☐	موظف بالقطاع الخاص
Self employed	☐	أعمال حرة

(vi) Nationality : الجنسية

Kuwaiti	☐	كويتي
Non-Kuwaiti	☐	غير كويتي

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