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**LONG TERM FINANCE PROGRAMMES  
IN THE BANKING INDUSTRY :  
THE CASE OF ISLAMIC &  
TRADITIONAL ARAB BANKS**

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*A Thesis submitted for the degree of  
Doctor of Philosophy  
at the University of Kent at Canterbury  
April 1993*

## ABSTRACT

### KEY WORDS :

Finance, Banking, Long Term Finance Programme, Islamic Banks, Traditional Banks, Musharaka, Mudaraba, Murabaha, Muzaraha, Lending, Decisions, Loglinear Models, Long Term Finance Ratio, Involvement, Rate of Return and Success of Long Term Finance Programmes.

This research draws empirically a clear and comprehensive picture of long term programme finance in the Islamic and traditional Arab banking industries : Islamic banking industry is examined through musharaka, mudaraba, murabaha and muzaraha and; traditional banking industry is examined through lending. It pioneers and lays out the foundation of the research in this area.

A survey was conducted on long term finance programmes in both the Islamic and traditional banking industries. A total of 109 banks was surveyed, 34 of which were Islamic banks. One main obstacle encountered in the research investigation was collecting the required primary data from banks.

The research investigates questions related to the differences between groups and subgroups of banks : a) Islamic banks and traditional banks; b) Islamic banks located in Islamic economies and Islamic banks located in non Islamic economies; c) commercial banks and specialised banks; d) younger banks and older banks and; e) smaller banks and larger banks.

The findings of the research investigation suggest that there is generally a lack of differences amongst groups and subgroups of banks in terms of size, growth, ownership and long term finance programme performance. The performance is determined in terms of proportion of resources, involvement, required rate of return and the degree of success in long term finance programmes. Apart from the basis of their operations, Islamic banks differ from traditional banks in their age, growth, involvement and the required rate of return on long term finance programmes.

The research investigates the practice and the importance of four Islamic finance policies namely; musharaka, mudaraba, murabaha and muzaraha to long term finance in the Islamic banking industry. The findings suggest that musharaka, mudaraba and murabaha are equally important : muzaraha is the least used in the long term finance programmes in the Islamic banking industry.

The analysis of 80 hypotheses lead to 18 being accepted and 62 being rejected. Although some hypotheses are more important than others the findings suggest that the literature of banking is in bad need for further empirical research investigations.

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I am most grateful to all members of my family, my relatives and friends for their help, assistance and support they provided me with throughout the duration of my research. I am grateful to you all.

**In The Name of Allah, The Most Beneficial, The Merciful**

I dedicate the good of my deed to :

The loving memory of my Mother and Father

I pray to Allah to bless them with His  
infinite mercy and forgiveness  
Amen.

## ABBREVIATIONS

IB(s)	Islamic Banks(s)
IBs-2	Islamic banks located in Iran, Pakistan and Sudan
IBs-1	The rest of Islamic banks
IBing	Islamic Banking
TB(s)	Traditional Bank(s) [Interest-based Arab Bank(s)]
TBs-1	Interest based commercial banks
TBs-2	Specialised interest based banks, for example, industrial bank.
TBing	Traditional Banking (Interest-based Arab Banking)
LTF	Long Term Finance
LTFP	Long Term Finance Programme(s) [Project(s)]
Mush	Musharaka
Mud	Mudaraba
Mur	Murabaha
Muz	Muzaraha
4M	Mush, Mud, Mur and Muz
IFP	Islamic Finance policy (ies)
IAIBs	International Association of Islamic Banks, Cairo, Egypt
IBID	International Islamic Bank for Investment and Development, Cairo, Egypt

## LIST OF TABLES

Table	Title
4-1	Ratio of long term finance using the 4M policies to total finance in Islamic banks
4-2	The maximum percentage of a project's finance that the bank can offer using 4M in Islamic banks
4-3	After tax minimum rate of return required on long term finance programmes using 4M in Islamic banks
4-4	Arab countries were included in the survey
4-5	Non Arab countries included in the survey
4-6	Response rate (Islamic banks)
4-7	Response rate (traditional banks)
4-8	Position of respondents
4-9	Banks' headquarter by their countries/regions
4-10	Banks by their type
4-11	Banks' type
5-1	Answers dates
6-1	Banks classified by their type and ages
6-2	Islamic banks classified by their locations and ages
6-3	Islamic banks (IBs) classified by their origins, locations and ages
6-4	Traditional banks (TBs) classified by their type & ages
6-5	Summary of results of section 6-1
6-6	Summary of results of section 6-2
6-7	Summary of results of section 6-3
6-8	Banks classified by their type & annual growth in total assets
6-9	Summary of results of section 6-4
6-10	Islamic banks classified by their type and ownership
6-11	Summary of results of section 6-4
7-1	TBs classified by their type & annual LTF ratio
7-2	Summary of results of section 7-1
7-3	Summary of results of section 7-2
8-1	Summary of results of section 8-1
8-2	Summary of results of section 8-2
8-3	Banks classified by their involvement in long term finance programmes
9-1	Islamic banks classified by their location & return on long term finance murabaha
9-2	Summary of results of section 9-1 location, age and size in relation to the Required Rate of Return on LTF 4M
9-3	Summary of results of section 9-2 Type, Age and Size of traditional banks (TBs) in relation to the Required rate of return on long term finance programmes (LTFP)
9-4	Banks Classified by The Required Rate of Return

- 10-1 Islamic finance policies (IFP) classified by their use in long term finance programmes (LTFP) in Islamic banks
- 10-2 Islamic Finance Policies Classified by Their Annual LTF Ratio
- 10-3 Summary of findings related to the Islamic finance policies (IFP)
- 11-1 Banks Classified by Their Size & Success Rate in long term finance programmes (LTFP)
- 11-2 Summary of results of section 11-1
- 12-1 Summary of findings related to type of bank, that is Islamic banks (IBs) and traditional banks (TBs)
- 12-2 Summary of findings related to location of Islamic banks, ie Islamic banks-1/Islamic banks-2
- 12-3 Summary of findings related to IFP
- 12-4 Summary of findings related to type of TBs, ie TBs-1/TBs-2
- 12-5 Summary of findings related to age of banks/Islamic banks/traditional banks
- 12-6 Summary of findings related to size of banks/Islamic banks/traditional banks
- 12-7 Summary of all findings



## Table of Contents

Abstract .....	ii
Acknowledgement .....	iii
Dedication .....	iv
Abbreviations .....	v
List of Tables .....	vi
Table of Content .....	viii
General Introduction .....	1
Chapter One : The Research Problem .....	6
1.1. Motivation and Observations .....	6
1.1.1. The Idea of Islamic banking .....	6
1.1.2. Success of the new banking system .....	8
1.1.3. Earlier experience .....	10
1.1.4. How do Islamic banks use their resources .....	10
1.1.5. Islamic finance policies .....	11
1.1.6. The development aim of Islamic banks .....	11
1.2. Queries and Hypotheses .....	12
1.2.1. Queries .....	13
1.2.2. Arab interest based banking system .....	13
1.2.3. Research hypotheses .....	14
1.3. Objectives and Scope .....	15
1.3.1. Research objectives .....	15
1.3.2. Research importance .....	15
1.3.3. Research limitations .....	15
Chapter Two : Long Term Finance Policies Used in Islamic Banking .....	17
2.1. Principles of Islamic Finance .....	17
2.1.1. The Islamic substitute for interest .....	18
2.1.2. Principles of Islamic finance .....	20
2.1.3. Islamic banking : objectives and characteristics .....	20
2.1.4. Long term finance policies .....	21
2.1.5. Investment or finance .....	21

2.2. Musharaka Finance Policy .....	22
2.2.1. Musharaka definition .....	22
2.2.2. Musharaka contract .....	22
2.2.3. Musharaka advantages .....	24
2.3. Mudaraba Finance Policy .....	24
2.3.1. Mudaraba definition .....	24
2.3.2. Mudaraba components .....	25
2.3.3. Mudaraba applications .....	27
2.3.4. Mudaraba limitations .....	27
2.4. Murabaha Finance Policy .....	28
2.4.1. Murabaha definition .....	28
2.4.2. Forms of murabaha .....	28
2.4.3. Murabaha resale processes .....	28
2.4.4. Payment .....	29
2.4.5. Murabaha advantages .....	29
2.4.6. Murabaha disadvantages .....	29
2.5. Muzaraha Finance Policy .....	29
2.6. Principles and Nature of Islamic Finance Policies .....	30
2.6.1. Principles of finance .....	30
2.6.2. Requirement of finance .....	31
2.6.3. Society of application .....	31
2.6.4. Other issues .....	32
Chapter Three : Research Hypotheses .....	33
3.1. Queries .....	33
3.1.1. Queries related to the banks .....	33
3.1.2. Queries related to long term finance ratio .....	35
3.1.3. Queries related to Islamic finance policies .....	35
3.1.4. Queries related to involvement in long term finance programmes .....	36
3.1.5. Queries related to rate of return on long term finance programmes .....	36
3.1.6. Queries related to the success of long term finance programmes .....	37
3.2. Research Hypotheses .....	37
3.2.1. Banks' research hypotheses .....	38
3.2.2. Islamic banks' research hypotheses .....	41
3.2.3. Islamic finance policies' research hypotheses .....	45
3.2.4. Traditional banks' research hypotheses .....	46

3.2.5. Age's research hypotheses .....	48
3.2.6. Size's research hypotheses .....	50
Chapter Four : Research Methodology .....	53
4.1. Questionnaires Preparations .....	53
4.1.1. Background of the research .....	54
4.1.2. Sources of ideas .....	54
4.1.3. English versions .....	54
4.1.4. Arabic versions .....	55
4.1.5. Pilot study .....	55
4.2. The Questionnaire Design .....	57
4.2.1. Scales .....	57
4.2.2. Considerations .....	57
4.2.3. Questionnaire references .....	59
4.2.4. The Islamic banking questionnaire .....	59
4.2.5. The traditional banking questionnaire .....	62
4.3. Sample Selection .....	62
4.3.1. Population size .....	63
4.3.2. Population geograhpy .....	63
4.3.3. Traditional banking sample .....	64
4.3.4. Islamic banking sample .....	66
4.4. Addresses and Response Rate .....	67
4.4.1. The Islamic banks' sample .....	67
4.4.2. Iranian banks .....	68
4.4.3. The traditional banks' sample .....	69
4.4.4. Jordanian banks .....	69
4.4.5. The traditional banks' addresses .....	70
4.4.6. The Islamic banks' response rate .....	70
4.4.7. The traditional banks' response rate .....	71
4.5. Data Collection Processes .....	71
4.5.1. Administration .....	71
4.5.2. Follow up .....	73
4.5.3. Complaints from respondents .....	74
4.5.4. Difficulties .....	75

4.6. Sample Characteristics .....	75
4.6.1. Bank headquarters' regions .....	76
4.6.2. Type of banks .....	76
4.6.3. Data .....	77
Chapter Five : Statistical Methodology .....	78
5.1. General Introduction .....	78
5.1.1. Data suitability .....	78
5.1.2. Purposes of statistics used .....	78
5.1.3. Statistical techniques .....	79
5.1.4. Statistical analysis approach .....	79
5.1.5. SPSS .....	80
5.2. Tests for Data Quality .....	80
5.2.1. Validity tests .....	80
5.2.2. Non bias test .....	83
Chapter Six : Description of Banks .....	86
6.1. Banks' Age .....	87
6.1.1. Banks' age .....	87
6.1.2. Islamic banks' age .....	89
6.1.4. Traditional banks' age .....	94
6.1.5. Summary of the results .....	95
6.1.6. Remark .....	96
6.2. Size of Total Assets .....	96
6.2. Banks' total assets .....	97
6.2.1. Islamic banks' total assets .....	97
6.2.2. Traditional banks' total assets .....	98
6.2.3. Summary of results .....	98
6.2.4. Remark .....	99
6.3. Size of Banks' Capital in 1991 .....	99
6.3.1. Banks' capital in 1991 .....	100
6.3.2. Islamic banks' capital in 1991 .....	100
6.3.3. Traditional banks' capital in 1991 .....	101
6.3.4. Summary of results .....	102
6.3.5. Remark .....	97
6.4. Annual Growth of Total Assets .....	102

6.4.1. Banks' annual growth .....	102
6.4.2. Islamic banks' annual growth .....	104
6.4.3. Traditional banks' annual growth .....	105
6.4.4. Summary of results .....	105
6.4.5. Remark .....	105
6.5. Banks' Ownership .....	106
6.5.1. Banks' ownership .....	106
6.5.2. Islamic banks' ownership .....	102
6.5.3. Traditional banks' ownership .....	108
6.5.4. Summary of the results .....	109
6.5.5. Remark .....	109
6.6. Discussion of Findings .....	110
6.6.1. Introduction .....	110
6.6.2. Age and ownership .....	110
6.6.3. Size of assets and capital .....	111
6.6.4. Annual growth of total assets .....	112
6.6.5. Summary .....	112
Chapter Seven : Annual Long Term Finance Ratio .....	114
7.1. Banks' Long Term Finance Ratio .....	114
7.1.1. Banks' long term finance ratio .....	115
7.1.2. Islamic banks' long term finance ratio .....	117
7.1.3. Traditional banks' long term finance ratio .....	119
7.1.4. Summary of the results .....	121
7.1.5. Remark .....	122
7.2. Long Term Finance Musharaka, Mudaraba, Murabaha and Muzaraha Ratio .....	122
7.2.1. Long term finance musharaka .....	123
7.2.2. Long term finance mudaraba .....	125
7.2.3. Long term finance murabaha .....	127
7.2.4. Long term finance muzaraha .....	130
7.2.5. Summary of the results .....	132
7.2.6. Remark .....	132
7.3. Discussion of Findings .....	132
7.3.1. Discussion of the first section findings .....	133
7.3.3. Discussion of the second section findings .....	134

Chapter Eight : Finance Contribution .....	136
8.1. Islamic Banks Contribution .....	136
8.1.1. Long term finance musharaka contribution .....	137
8.1.2. Long term finance mudaraba contribution .....	139
8.1.3. Long term finance murabaha contribution .....	141
8.1.4. Long term finance muzaraha contribution .....	143
8.1.5. Summary of results .....	145
8.1.6. Remark .....	146
8.2. Traditional Banks Contribution .....	146
8.2.1. Traditional banks' contribution .....	149
8.2.2. Summary of results .....	149
8.2.3. Remark .....	149
8.3. Discussion of Findings .....	149
8.3.1. Comparison : Islamic and traditional banks involvement .....	149
8.3.2. Discussion of the first section findings .....	151
8.3.4. Discussion of the second section findings .....	152
Chapter Nine : Rate of Return .....	153
9.1. Islamic Banks Rate of Return .....	153
9.1.1. Rate of return on long term finance musharaka .....	153
9.1.2. Rate of return on long term finance mudaraba .....	155
9.1.3. Rate of return on long term finance murabaha .....	157
9.1.4. Rate of return on long term finance muzaraha .....	161
9.1.5. Summary of the results .....	163
9.1.6. Remark .....	163
9.2. Traditional Banks Rate of Return .....	164
9.2.1. Rate of return on long term finance programmes .....	164
9.2.2. Summary of the results .....	166
9.2.3. Remark .....	166
9.3. Discussion of The Findings .....	167
9.3.1 Comparison : Islamic and traditional banks' rate of return .....	167
9.3.2 Discussion of the first section findings .....	169
9.3.4 Discussion of the second section findings .....	169
Chapter Ten : Islamic Finance Policies .....	170

10.1. The Application of Musharaka, Mudaraba, Murabaha, Muzaraha (4M) .....	171
10.1.1. 4M use .....	171
10.1.2. 4M and long term finance ratio .....	174
10.1.3. 4M and involvement .....	176
10.1.4. 4M and rate of return .....	177
10.1.5. Summary of results .....	178
10.2. Discussion of The Findings .....	178
10.2.1. summary of the first section findings .....	178
10.2.2. Discussion of the findings .....	179
10.2.3. Further discussion .....	181
Chapter Eleven : Long Term Finance Programmes Success Rate .....	182
11.1. Banks' Success Rate .....	182
11.1.1. Banks' success rate .....	183
11.1.2. Islamic banks' success rate .....	185
11.1.3. Traditional banks' success rate .....	187
11.1.4. Summary of the results .....	189
11.1.5. Remark .....	189
11.2. Discussion of The Findings .....	190
Chapter Twelve : Conclusions .....	191
12.1. Introduction .....	191
12.1.1. Development of research theory .....	191
12.1.2. Research hypotheses tested .....	192
12.1.3. The statistics used .....	192
12.2. Findings of The Research .....	193
12.2.1. Findings related to type of banks .....	193
12.2.2. Findings related to location of Islamic banks .....	196
12.2.3. Findings related to Islamic finance policies .....	201
12.2.4. Findings related to type of traditional banks .....	204
12.2.5. Findings related to the long term finance programmes and age .....	207
12.2.6. Findings related to the long term finance programmes and size .....	210
12.3. Discussion of The Research Findings .....	215
12.3.1. Discussion of findings related to type of banks .....	215
12.3.2. Discussion of findings related to location of Islamic banks .....	219
12.3.3. Discussion of findings related to Islamic finance policies (4M) .....	223

12.3.4. Discussion of findings related to type of traditional banks .....	226
12.3.5. Discussion of findings related to long term finance programmes age & size .....	227
12.4. Further Discussion of The Research Findings .....	228
12.4.1. 4M and Islamic banking literature .....	229
12.4.2. long term finance programmes and the second Islamic banking conference .....	229
12.4.3. Lending or sharing? .....	230
12.4.4. Success or emotion? .....	231
12.4.5. Table summary of the findings .....	232
12.4.6. Dissimilarity .....	232
12.4.7. Similarity .....	232
12.4.8. Similarity or dissimilarity? .....	233
12.4.9. Literature : Renewal or findings? .....	233
12.5. Recommendations For Further Research .....	234
Appendices .....	237
Appendix 1-a : Islamic banking questionnaires and covering letters .....	237
Appendix 1-b : Traditioanl banking questionnaires and covering letters .....	247
Appendix 2 : Loglinear Models Technique .....	256
.....	259
<b>References</b>	



## GENERAL INTRODUCTION

The aim of this general introduction is twofold : a) to discuss the research importance in relation to the literature and other research in the field and; b) to give a brief idea about the content of each chapter and the appendices.

This research draws empirically a clear and comprehensive picture of long term programme finance in the Islamic and traditional Arab banking industries : Islamic banking industry was examined through musharaka, mudaraba, murabaha and muzaraha and; traditional banking industry was examined through lending. It pioneers and lays out the foundation of the research in this area.

This research derives its importance from different standpoints. To the best of the researcher's knowledge no research survey has been conducted on the scale specified of long term finance in the Islamic banking and traditional banking systems. This project is the first of its kind in the field. The researcher has made various contacts with banks, academicians, researchers and made visits to research centres in academic institutions as well as in banks in various countries. For more details see (chapter four, sections one, three, four and five). None of them has ever mentioned that such research has been done before. Almost all of them have asked for the research results to be sent to them.

The research, therefore, covers an important area in the literature of banking industry where there is a lack of empirical research. Most of the literature, especially in the Islamic banking area, concerning long term finance is largely theoretical. See for example, Mudawi (1986[125]), Gali and Alkazaz (1988[75]), Alabjee (1986[11]), Tomkins and Abdul Karim (1987[177]), Ali (1986[26]), Aljarhi (1986[28]), Rashid (1987[147]), Azhar (1987[55]), Chowdhury (1974[67] and 1985[68]). The researcher could not find a single article that empirically examined long term finance programmes in the Islamic banking industry.

In addition to the uniqueness of the topic, there are other features which make this research distinguished from other research in the literature of banking, in particular the Islamic banking literature. These features are as follows :

- a. It is the first study which attempt to include all Islamic banks all over the world. That includes Islamic banks located in both Islamic economies such as Pakistan, and non Islamic economies such as the UK.
- b. Moreover, it is the first study on Islamic banks which includes thirty four Islamic banks. That is contrary to the previous studies which depend on maximum eight Islamic banks. For example, one Islamic bank was included in Shallah's (1991[162]) research; two Islamic banks were included in Mohmoud's (1990[120]) research; eight Islamic banks -which is the highest number before this research- were included in Ahmad's (1987[53]) research.
- c. Unlike other research which discuss Islamic banking in its own : the approach followed in the research is a comparative. It compares the practice of Islamic banking industry with the practice of traditional banking industry : seventy five Arab interest based banks were also surveyed for this purpose. Moreover, statistical approach using loglinear models strengthened the comparative approach in the current study.
- d. The in depth and detailed statistical analysis of the data which enriched the discussions and strengthen the conclusions contrary to other studies, for example, Ahmad (1987[53]) which depend on simple interpretation of the data.
- e. It is the first study, to empirically and thoroughly examine the importance of four Islamic finance policies, namely : musharaka, mudaraba, murabaha and muzaraha from different standpoints : use, resources committed, involvement, and rate of return, in the field of long term finance programme in the Islamic banking industry.
- f. Furthermore, this research includes a comprehensive questionnaires (appendix one). It was designed to suit the Islamic banking industry. It raised the urgent issues in the Islamic banking literature which need research such as : a) organizational aspects of long term finance programmes; b) quantitative aspects of long term finance programmes; c) characteristics of long term finance programmes that bank finance and; d) questions related to musharaka. The questionnaire can be applied and used again in the future, so that results can be compared.

g. Whereas the theory of Islamic banking is well documented, very little on actual Islamic banking practice is known. This is, perhaps, due to : a) the short and limited historical experience and; sensitivity and confidentiality of banking issues. This resulted -in the process of completing this thesis- in employing more than one research instrument to gather and interpret data : in addition to the questionnaire and the published data, interviews were made with : a) bank managers; b) researchers working in research centres in Islamic banks and; c) researchers in academic institutions. Most of the interviews were made by visits and by telephone calls.

In addition to the current general introduction, this thesis comprises twelve chapters and two appendices :

The aim of the first chapter is to form the basic understanding of what this research study is about : motivation, observations, queries, hypotheses, objectives and scope.

The aim of the second chapter is to discuss the principles of Islamic finance which underline the Islamic banking industry. And to discuss four Islamic finance policies, namely : musharaka, mudaraba, murabaha and muzaraha, that is 4M. These policies are used by Islamic banks to finance programmes. They will be empirically examined in later chapters. The chapter also discusses some characteristics of Islamic finance policies which should be kept in mind whenever a comparison between Islamic banks and non Islamic banks is made.

The aim of chapter three is twofold : a) to discuss the research questions in detail and; b) to formulate detailed research hypotheses that will be examined in later chapters.

The aim of chapter four is to describe and discuss, in depth, the approach followed in constructing the questionnaire and gathering the required primary data.

The aim of chapter five is to discuss the statistical methodology followed in validating and analysing the data.

The aim of chapter six is to introduce the Islamic and traditional banking systems by describing them in terms of age, size of capital, size of total assets, growth and ownership. This chapter

serves as introduction to the later chapters where long term finance programmes are analysed in both Islamic and traditional banking industries.

The aim of chapters seven, eight, nine, ten and eleven is to focus on the analysis of various aspects of long term finance programmes performance in the Islamic and traditional banking industries. Chapter seven focuses on the analysis of the annual ratio of long term finance, that is the annual proportion of resources allocated to long term finance programmes.

Chapter eight focuses on the analysis of the contribution ratio to individual long term finance programmes. In other words, the degree in which banks get themselves involved in long term finance programmes.

Chapter nine focuses on the analysis of the after tax minimum rate of return required in long term finance programmes.

Chapter ten focuses on the analysis of the application of Islamic finance policies : musharaka, mudaraba, murabaha and muzaraha, that is 4M, to long term finance programmes in the Islamic banking industry from different standpoints : use; resources allocated; involvement and; required rate of return.

Chapter ten focuses on the analysis of the success rate of long term finance programmes. In other words the successful long term finance programmes which produced the desired results.

The aim of chapter twelve is to focus on the discussion of the conclusions of this research study. This chapter draws a clear and comprehensive picture of the research. It summarises all findings of the research. The aim of the finding summary is to make it simpler and easier, especially, for none specialist and those who are not familiar with the statistics used in analysing the research data. The chapter then discusses findings which are thought to be important in the literature. Also, it discusses some ideas which can be developed to research projects.

Finally, two appendices are included : The first appendix contains the two questionnaires : one for long term finance programmes in the Islamic banks through musharaka, mudaraba, murabaha and muzaraha policies and the other for long term finance programmes in the traditional banks

through lending policy. The questionnaires were discussed in chapters four and five but only some parts of them were analysed in the thesis.

The second appendix contains discussion -for non specialist- on the statistical technique (loglinear models) which was used in the analysis of the data. It explains the technique from different standpoints : saturated models, unsaturated models, residuals, Chi Square and, degree of freedom.

## CHAPTER ONE

### THE RESEARCH PROBLEM

The aim of this chapter is to form the basic understanding of what this research study is about. This chapter comprises three sections : 1) motivation and observations; 2) queries and hypotheses and; 3) objectives and scope.

#### 1.1. MOTIVATION AND OBSERVATIONS :

The aim of this section is to highlight the evolution of the researcher's interest in this research project as follows : 1) the idea of Islamic banking; 2) success of the new banking system; 3) earlier experience; 4) how do Islamic banks use their resources; 5) Islamic finance policies and; 6) the development objective of Islamic banks.

##### 1.1.1. THE IDEA OF ISLAMIC BANKING :

Since the early stage of Islam, Quran (the religious book of muslim which was revealed in the seventh century) prohibited interest. However, the idea of applying Islamic finance principles to banking -in its present form- started as late as the 1940's (Salah 1991, page 30[154]). It came as a result of many interrelated factors (Khan 1991 [109] and Wilson 1985[183]). One of these factors is the existence of the traditional banking system, which operates on an interest basis, in muslim countries. This led to a long debate (which is part of social, religious, economical, political and historical development in muslim countries) among muslims (Mohsin 1978[121]). Some differentiated between interest and usury. Others differentiated between a loan for productive uses and one for consumption uses. So they allowed receipt and payment of interest, if a loan was for productive purposes, and did not allow it, if it was for social (non profitable) purposes. A third group did not allow the receipt or the payment of interest in any case and under any conditions (Jafarey 1988 [94] and Khater 1978, page 19[111]). For further discussion over the debate on interest see also Alsaloos (1990[43] and 1991[44]).

In 1965, Alazhar a Cairo based religious institution which gives advice in religious issues to muslims, advised that interest is forbidden in Islam in any case or any kind. In addition, Alazhar

advised muslims to establish a substitute Islamic banking system which does not deal with interest, see the special issue of *Journal of Islamic banks* (Albonouk Alislamia) on interest (riba) (June 1988). This advice strengthened the argument of the group who on the one hand believed in the prohibition of interest and on the other hand had the enthusiasm to establish Islamic banks. Also, other muslim institutions gave the same advice, for example, *Journal of Islamic Banks* (Albonouk Alislamia) (April 1986, pages 42-44) discusses the advice given by The Muslim World League, Mekkah, Saudi Arabia.

The problem was, however, how to apply Islamic thoughts in finance and economics to the banking industry. Moreover, Islamic finance policies were not very clear and understandable (Shehada 1991, page 36[163]). In an interview with an Islamic bank manager, the researcher was told that when his bank was established people (staff and clients) were asking what Islamic finance policies were and how they were applied. The new system, also, has to compete with the traditional banking system where clear policies of operation are fully developed (Wilson 1988[184]).

Practically, the first Islamic (interest free) based banking operation experiment was in a rural area of Pakistan in the late 1940's. This experiment ceased to exist in the 1950's. Nelson (1985, page 36) mentioned that its failure came as a result of : a) shortage of funds where the depositors were from rich landowners who accept to deposit single payment without interest; b) operational loses that revenues came from a fixed administrative fee did not cover costs and; c) the interference of depositors in running the bank.

The second experiment was in Egypt in 1963. It was pioneered by Dr. Ahmed Alnajjar, who studied (1957-1959) in West Germany and noticed the role of the German Saving banks in the economic development in West Germany. In meet Ghamr, a rural area of Egypt, Alnajjar established saving banks which operated on non interest basis but without declaring that it is an Islamic based banks. The bank was very successful both from the economic and the social standpoints. In 1967, for political reasons the management team of the project was changed and consequently it changed its basis of operations. For further discussion see Alnajjar (1977[37])

In 1971 another bank owned by the government was established in Egypt operating on an interest free basis called Nasir Social Bank (Alnajar, 1977[37]).

It is not clear, however, whether these three experiments, though Nasir Social Bank still in operation, influenced the establishment of other Islamic banks worldwide.

It is thought, however, that four other important factors strengthened the movement to establish Islamic banks worldwide :

- a. The establishment of Dubai Islamic Bank in 1975 by individual efforts (Nienhaus 1985, page 6[129]). This bank declared that it would operate on an Islamic basis from the first moment of its establishment. It is considered to be the first privately owned Islamic bank to be established (Salah 1991, page 30[154]).
- b. The establishment of the Islamic Development Bank in Jeddah in 1975 as a result of a decision by the foreign ministers of Islamic countries in 1972. It is considered to be the first government owned Islamic bank to be established.
- c. The support of governments in some countries, for example, Pakistan, for the idea of Islamic banking.
- d. The support of some influential people for the idea of Islamic banking, for example, Mohamad Faisal a prince and son of the late king of Saudi Arabia who contributed to the establishment of many Islamic banks worldwide.

#### 1.1.2. SUCCESS OF THE ISLAMIC BANKING SYSTEM :

Islamic banks have achieved unexpected success within a short period of time. This success has been reflected in various ways such as :

- a. At the end of 1989, the total size of the balance sheets of twenty two Islamic banks, which are spread all over the world, was around \$12 billions. The International Association of Islamic Banks (IAIBs), Cairo projected that around 100 million people will deal with Islamic banking system by the year 2000 (Elhindawi 1991, page 5[70]).



- b. There is an increasing number of Islamic banks all over the world. In the 1970's more than ten Islamic banks were established worldwide. By the end of 1983, twenty two Islamic banks were registered at the International Association of Islamic Banks, Cairo.
- c. The increasing number of Arab traditional banks which have established Islamic branches. The success of Islamic banking has motivated traditional banks to establish Islamic Branches. For example, in Egypt, Misr Bank had established more than thirty Islamic branches by 1991.
- d. More interestingly, western bankers started establishing Islamic banks (Trolle - Schultz 1987[178], Banking and Trade 1987[56], and Zaiter 1989[187]) and/or to use some of the Islamic finance policies. Islamic banks are well established now in four European countries, namely : the UK, Luxembourg, Switzerland and Denmark. Islamic banks also are established in other countries in Africa, Asia and America. For more details see (chapter four, section three).
- e. The conversion of the whole economies of some countries to operate on an Islamic basis namely; Pakistan, Iran and Sudan (Karim 1989[103], Khan 1988[110], Nurbakhsh 1987[135], Chishti 1988[66], Alkazaz[29], Shaield and Brown[160], Ahmed 1987[10]). The Islamic banking industry has been given a practical shape in these countries (Ahmad 1986[9]).
- f. The increasing number of research, research centres (for names and more details see chapter four, section one) and publications in the Islamic economics and Islamic banking fields (International Institute of Islamic Economics 1987[92]). Moreover, Islamic banking studies are becoming a part of academic studies. Universities have started to teach topics related to Islamic economics. New educational institutions have been established to teach Islamic economics and Islamic banking. One institute which was established in Cyprus offers first degrees and postgraduate studies in Islamic banking (The Institute Prospectus[175]).

One important aim of the current research investigation is to examine aspects of Islamic banks, for example, size and growth, compared to the Arab traditional banking (TBing) industry.

### 1.1.3. EARLIER EXPERIENCE :

In 1985, the researcher was asked to construct and teach a graduate Islamic finance and banking course. Great efforts, then were made to collect the course material and contacts were established with both Islamic and traditional banks. What was most important were the discussions, debates and arguments with colleagues, students and friends about the newly emerging phenomenon of Islamic banking.

It was noticeable that very little, if any, empirical research had been conducted on the practical problems facing the management of Islamic banks. The vast majority of research on Islamic banking was very theoretical. It mostly concentrated on the historical development of Islamic banking and whether Islamic banking activities were conducted according to Islamic Sharia law. Interest (Usury) normally received considerable coverage in the Islamic Economics and finance research and literature, see for example Almitrick (1982[34]).

Thus, it was decided, in this research to deal with actual performance and practice of banking systems (Islamic and traditional) leaving aside the legal aspects of banking.

### 1.1.4. HOW DID ISLAMIC BANKS USE THEIR RESOURCES :

Looking at the absolute figures of the balance sheets of some of Islamic banks, one can easily observe that in the mid 1980's they were investing little of their resources on long term finance programmes (LTFP). For example, a study by a research centre, (1988, page 28[148]) was conducted on twenty Islamic banks in two consecutive years, it was found that the average ratio of long term finance to total finance was in 1984 8.8% and in 1985 9%. Looking at these percentages, one may ask : do Islamic banks allocate a lesser proportion of their resources to investment in long term finance programmes than other banking industries?

The lack of long term finance programmes was also noted by Kabbara (1988, page 30[100]) and Kassem (page 6[104]). Thus, one important aim of this research project is to find out empirically whether the Islamic banking industry lack long term finance programmes compared to other banking industries.

#### **1.1.5. ISLAMIC FINANCE POLICIES :**

There are a number of Islamic finance policies : musharaka (partnership), mudaraba (equity finance), murabaha (resale) and muzaraha (co-farming), that is 4M, and others. For more discussion of these policies see chapter two, sections two, three, four and five. It seems that Islamic banks do not use all of these finance policies with the same frequency. By and large, Islamic banks are thought to use murabaha heavily : what is more murabaha is considered to be the backbone of finance in the Islamic banking industry (Homud 1987[86]). This implies that Islamic banks rarely use musharaka, although it is generally agreed among muslim economists (Alhawari 1988[23] and Alnajjar 1979, page 27[38]) that musharaka is the most effective Islamic finance policies, to the extent that Islamic banks are often called musharaka banks (International Islamic Bank for Investment and Development 1988, page 6[150]). Musharaka is :

- a. Very suitable for long term programmes.
- b. Suitable for development programmes (Elsarraf[71]).
- c. Lawful from the Islamic Sharia law point of view. Additionally, nobody argues that it does not conform with Islam.

In addition, most of research, if not all of it, in Islamic finance policies is theoretical. It discusses the legal and historical aspects of them. There is generally a lack of empirical research as to how Islamic banks actually apply Islamic finance policies.

Thus, one important aim of this research project is to find out whether Islamic banks, in practice, prefer one Islamic finance policy over another. Moreover, the research sought to examine empirically various aspects of applying Islamic finance policies : use, resources committed, involvement and the required rate of return on each of musharaka, mudaraba, murabaha and muzaraha.

#### **1.1.6. THE DEVELOPMENT AIM OF ISLAMIC BANKING INDUSTRY :**

In addition to other objectives (discussed in chapter two, section one), one of the main aims of Islamic banks is to develop their societies (Kabbara 1988, page 31[100]). The literature of

Islamic banking could not emphasise it more, see for example Faisal (1987, page 14[72]). Therefore, Islamic banks can be called development banks. This aim of development could be achieved by several policies including the conduct of short term and long term finance programmes. There is no doubt, that, carrying out long term finance programmes is one of the most important and efficient means to help in the economic and social development (Kassem page 5 [104]).

This strategic aim of developing by conducting long term finance programmes was reinforced by the recommendations concerning strategic objectives given by the second general conference of Islamic banking held in Sudan in 1988 (Journal of Albonouk Alislamia (Islamic Banks) 1989, pages 3-7[98] and Journal of Aliqtisad Alislami (Islamic Economics) 1988, pages 2-6[99]). Consequently, conducting long term finance programmes will greatly help in accomplishing the strategic aim of Islamic banking.

Thus, one important aim of this research project is to evaluate, from different standpoints, the practices of long term finance programmes in the Islamic banking industry.

## **1.2. QUERIES AND HYPOTHESES :**

" Research always starts from a question or a problem of some sort" Seltiz Et al, (1966, page 2[159]).

As we have seen in the first section of the current chapter the researcher observed the rise and success of the new banking system. These observations and discussions with colleagues lead to a number of research questions. The aims of this section are threefold :

- a. To briefly discuss these questions (chapter three, section one provides detailed discussions on these questions),
- b. To discuss how and why Arab interest-based banks were chosen as the subject of investigation (chapter four, section three provides detailed discussions of sample selection).
- c. To formulate basic research hypotheses which are fully discussed and developed later in chapter three, section two.

### 1.2.1. QUERIES :

The questions raised can be grouped in the following categories :

- a. Questions related to banks, for example, age, ownership, growth and size;
- b. Questions related to long term finance performance in the banking industry, for example, resources allocated to, rate of return on, involvement in, and success of long term finance programmes;
- c. Questions related to the Islamic finance policies in the Islamic banking industry, for example, musharaka, mudaraba, murabaha and muzaraha (4M).

These questions are asked, discussed and debated but no empirical studies have been conducted to answer them. Thus, one important aim of the research investigation is to empirically answer these questions.

### 1.2.2. ARAB INTEREST-BASED BANKING INDUSTRY :

As explained earlier, the researcher's interests were initially in the subject of Islamic banking. However, they took the form of a comparison between two banking systems. The question asked normally was :

"what is the difference between an Islamic bank and a normal bank, that is to say, an Arab interest based bank"?

The Arab interest based banking (traditional banking) industry was therefore chosen to compare with Islamic banking industry in this research study.

The reason for the choice of Arab banks, in addition to other methodological reasons (discussed in chapter four, section three) was that the first Islamic banks to be established, either private or public, were in Arab countries (discussed in chapter one, section one). The literature of Islamic banking originated in Arabic; to the extent that whatever new application, techniques and or justification of Islamic banking must refer to sources written in or translated from Arabic. Therefore, it seems safe to say that, on the one hand, wherever an Islamic bank is located, it will certainly be influenced by the surrounding culture, on the other hand, Arab culture is a dominant

factor in the Islamic banking industry regardless of location. Therefore, when it was decided to compare Islamic banking industry with another banking system, it seemed reasonable to choose the Arab interest based industry, referred to hereafter as the traditional Banks.

It is of interest to ask : " Does the answer to any of the previous questions depend on whether it was an Islamic bank or traditional bank? "

Thus, this research is intended to investigate these questions in the context of a comparative study between the two banking systems, viz the Islamic banking system compared to the traditional banking system. There is a need to empirically examine the current practice of long term finance programmes in the Islamic banking industry as well as in the traditional banking system.

### 1.2.3. RESEARCH HYPOTHESES :

From the foregoing discussions, the following working hypotheses are drawn :

- H1. Islamic banks are much younger and therefore much smaller than traditional banks.
- H2. Islamic banks' long term finance programmes performance is generally poorer than traditional banks'.
- H3. Islamic banks do not use all Islamic finance policies with the same frequency.
- H4. It is expected that there will be differences between Islamic banks operating in Islamic economies (Islamic banks-2), namely : Iran, Pakistan and Sudan, and Islamic banks that operate in non Islamic economies (Islamic banks-1).
- H5. It is expected that there will be a difference between small and large banks and between young and old banks.

The research hypotheses will be later fully developed and discussed in chapter three, section two and they will be also fully examined in chapters six, seven, eight, nine, ten and eleven.

### **1.3. OBJECTIVES AND SCOPE :**

The aims of this section are to highlight the objectives, the importance and the limitations of this research.

#### **1.3.1. RESEARCH OBJECTIVES :**

The objectives of this research study are as follows :

- a. To examine empirically the Islamic banks as compared with traditional banks in terms of age, total assets, capital, growth and ownership.
- b. To provide new evidence on, and to compare the long term finance practices in the Islamic banking and traditional banking systems through studying, examining and analysing long term finance practices in both type of bank (Islamic banks/traditional banks). Also to test the association of such performance with bank characteristics such as : age and size.
- c. To provide a new evidence of the application of Islamic finance policies in the Islamic banking industry to long term finance programmes.

#### **1.3.2. RESEARCH IMPORTANCE :**

The research importance was discussed earlier in the general introduction.

#### **1.3.3. RESEARCH LIMITATIONS :**

" A good research design is clear both about what can and what cannot be tackled by a project " (Hakim 1987, page 120[81]).

This research is oriented to the study of the performance and the practice of banking. The finance policies used in the Islamic banking industry will be analysed as they are applied in real life.

Consequently, the following assumption is kept in mind throughout the conduct of this study :

It is assumed that long term finance programmes (LTFP) conducted by the Islamic banks are religiously permitted (halal). This assumption is based on the fact that not only a religious board, which makes sure that all bank's activities are sound, is established in every Islamic bank (Abumomar 1989[5]) but also that there is one supreme board established in

the International Association of Islamic banks to guide all other boards (Journal of Albonouk Alislamia (Islamic Banks) 1979, page 18[97]).

Moreover, the research is mainly focused on the side of money supply, that is to say, the bank perspective.



## CHAPTER TWO

### LONG TERM FINANCE POLICIES USED BY ISLAMIC BANKS

As explained earlier (in chapter one, section three) this research takes a practical approach rather than a legal one. Throughout the analysis and discussions, in the current chapter the following guidelines are considered :

- a. The discussions will be focused on the fundamentals and principles of finance in Islam.
- b. The discussions will be focused on the commonly known opinions in Islamic Sharia law.
- c. The argument is built from a practical standpoint, that is to say, from an Islamic bank perspective.
- d. It is out of the chapter's scope to serve as a religious guide to Islamic banking and finance.

The aim of this chapter is twofold :

- a. To make the reader more familiar with some terms used in this research and;
- b. To make some basic assumptions, which are usually clear to an Arab reader, comprehensible to other readers in the analysis which is carried out in later chapters.

The chapter is discussed under six sections; the first throws light on the basis of Islamic finance, the Islamic banking industry and the long term Islamic finance policies used in the industry; sections two to five discuss four Islamic finance policies in some depth. These policies are; musharaka, mudaraba, murabaha and muzaraha, that is 4M; section six discusses the nature of the policies from a practical point of view.

#### 2.1. PRINCIPLES OF ISLAMIC FINANCE :

The aim of this section is to introduce the principles of Islamic finance which underlie the framework of the Islamic banking industry as follows : 1) the Islamic substitute for interest; 2) principles of Islamic finance; 3) the characteristics and objectives of the Islamic banking Industry; 4) long term Islamic finance policies and; 5) investment or finance?

### 2.1.1. THE ISLAMIC SUBSTITUTE FOR INTEREST :

The traditional banking system depends on interest as the basis for its operations. A traditional bank accepts deposits at a lower rate of interest and makes loans at a higher rate just as in the west.

Three points related to the above paragraph are worthy of notice :

First, with regard to the traditional banking system : a traditional bank makes loans with interest (lending) as a finance policy.

Secondly, in relation to the Islamic banking system (International Association of Islamic banks pages 29-32[57]) :

- a. There is no interest on loans. Loans are mere debts and must be repaid. Considerations which are not obligatory, should however be kept in mind in this case : i) when paying back a loan, the borrower, at his/her own discretion and option, may give a gift to the lender; ii) should the borrower (entrepreneur) become incapable of paying the loan back, either because of a loss in commercial operations or for any other reason, the lender is urged to reevaluate the situation. The lender may exempt (forgive) the borrower from all or part of the loan (Soelem 1985, page 17[170]). In an interview with an Islamic bank manager, he said that we (the bank) always reconsider the client (entrepreneur) situation if he/she went insolvent for example, if he/she owes us money and he/she cannot repay and his/her case proved to be genuine, we will help (through lending or other finance policies) him/her, to enable him/her of restarting; iii) and lending is recognised as an act of benevolence and called a good loan.
- b. Normally, Islamic banks do not consider making loans as a finance policy. Alternative finance policies are applied. These policies depend on profit/loss sharing (PLS), sale principles and/or partnership (see Shehatta 1984, pp.51-57[167]).
- c. Normally, an Islamic bank would use (make) a loan for social purposes such as education, marriage, and for needy people (Gusau 1987, page 11[79]). See also Nouetinue (1984 pages

30-34[134]). But if an Islamic bank used lending as a finance policy, the bank could ask for a service charge to cover all its administrative expenses on stationery and clerks. This charge must be calculated accurately. It should not be used as an alternative to interest (Ahmad 1985[8]).

d. Lending, in Islam, is rewarded by God in the hereafter.

The foregoing discussion on the Islamic substitute for interest shows the following :

**a. THE ORIGINS (BASIS OF OPERATIONS) :**

Islamic banks operations are based on the principles of Islamic finance and economics. For a muslim, that makes banking operations halal - permitted. In addition, it makes the breach to Islam as one of Islamic banks' objectives. On the other hand, traditional banking operations are based on interest which is prohibited by Islam. That makes its operations haram - not permitted.

**b. ORGANISATIONAL STRUCTURE :**

As a result of the difference in the finance policies, organisational structure differs. Traditional banks depend on lending so they establish strong departments for lending. Lending departments of Islamic banks are not as large as in the traditional banks. Islamic banks establish musharaka, mudaraba, murabaha and other departments which suit their finance policies. Islamic banks also establish Sharia advisory departments. This department must prove all banking activities and ensure that it is conform with Islamic Sharia. Also, Islamic banks establish zakat departments. A customer is asked whether she/he wishes to pay zakat, if so, this department will collect and redistribute it.

**c. SIMILARITIES :**

Islamic banks are similar to traditional banks in that they are financial mediators; gathering funds from depositors and make it available to investors. Also, they provide the banking services and facilities, such as transfer of funds and letters of credit, just as traditional banks'. Moreover, both banks follow the banking profession in conducting banking business, for instance, keeping

adequate levels of liquidity, evaluating project from economics point of view to ensure the valuability of the project. Also, to ensure that the project generates profits and cash flow so the bank can get its finance back.

### **2.1.2. PRINCIPLES OF ISLAMIC FINANCE :**

Before any further examination of the Islamic banking industry, it is important to analyse the principles of Islamic finance which underlie the concept of the Islamic banking industry (Alnajjar 1977[37], Abbasi 1989 [1] and Chachi 1989[65]).

There are many finance principles in Islam. They should direct the finance activities of the Islamic banking industry. Examples, perhaps the most important, of these principles are :

- a. The necessity to invest any money coming from productive sources.
- b. A muslim is asked to pay the contribution of *al zakat*. *Zakat is paid to certain people under certain conditions*. For further discussion on zakat see Albaalie (1984, pages 51-60[15]), Salama (1989, pages 17-37[155]), Tahir (1989, pages 247-280[174]), Radown (1989, pages 306-329[145]), Alomr (1989, pages 351-367[42]), Mannan (1989, pages 29-50[118]) and Awad (1989, pages 77-96[54]).
- c. To avoid any haram, that is to say prohibited, form while investing money such as : gambling and speculation, usury and interest, monopoly for any individuals or groups. And to avoid hoarding, that is the holding of wealth back from circulation.
- d. Islamic finance is based on moral values (Gazali 1988, page 7[76]). Therefore, a business man should have good character (Ibrahim 1979, page 287[90]).
- e. A muslim government should ensure that the economy is operating under Islamic Sharia (Sakr 1988[153] Khan 1985[108], Kahf 1981[102] and Rushdi 1987[152]).

### **2.1.3. ISLAMIC BANKING : CHARACTERISTICS AND OBJECTIVES :**

The Islamic banking industry is mainly characterised by applying Islamic Sharia laws in undertaking its operations (discussed in the above subsection). In addition to the other principles,

this feature of Islamic banking is mainly concerned with two complementary principles. The prohibition of interest on the one hand and on the other one, the application of Islamic finance policies (discussed in the remaining sections of this chapter). Otherwise, banking operations should be conducted in accordance with the technical and professional banking principles such as keeping an adequate liquidity level (Alhawari 1981[19] and Hamitogulari 1988[83]). But in any case Islamic banks should not apply any policy which contradicts Islamic Sharia.

#### **2.1.4. LONG TERM ISLAMIC FINANCE POLICIES (IFP) :**

There are a number of Islamic finance policies such as musharaka (partnership), mudaraba (profit loss sharing - Equity Finance), murabaha (resale), muzaraha (co-farming), each of them is an Islamic substitute for the traditional finance policy of loan with interest.

Every one of these finance policies in Islamic finance has its own characteristics, conditions, forms, advantages and disadvantages depending on the situation in which it is used.

In the main, these methods involve the contribution of capital and labour (Kabbara 1988, page 27[100]) and risk participation where profit or loss is expected. The outcome must be shared; the sharing ratio of profit is pre determined in the contract; but the sharing ratio of loss must be the same ratio of capital contribution. Also, a written agreement, that is a contract (Ibraheem 1983, page 17[89]), is required in which the parties should be adults with sound mind and legally competent. The agreement also, is subject to the approval of the Sharia committee in the bank.

These policies are used for long as well as medium and short term programmes. In the remaining sections of the present chapter the analysis will deal with the nature, forms, conditions, problems and the practical implications in the long term for each policy.

#### **2.1.5. INVESTMENT OR FINANCE :**

The policies which were discussed, that is 4M, in the context of Islamic banking are twofold; first, they are investment policies that is, an Islamic bank invests money, at the present time, in a portfolio of projects expecting a return in the future. Secondly, they are at the same time finance policies. That is the bank finances projects for entrepreneurs. Therefore the policies explained

later are investment and finance policies. The two terms are used interchangeably.

## **2.2. THE MUSHARAKA FINANCE POLICY :**

The aim of this section is to highlight musharaka as an Islamic finance policy as follows : 1) definition; 2) contract and; 3) advantages.

### **2.2.1. DEFINITION OF MUSHARAKA :**

Musharaka, which is an Arabic term, means simply partnership. An Islamic bank becomes a partner in a project.

### **2.2.2. MUSHARAKA CONTRACT :**

The major components of the musharaka contract are : project, partners, finance, management, duration and profits/losses.

#### **MUSHARAKA PROJECT :**

A project is proposed by a client or by the bank itself. It could be a small or large project in any field of the economy.

#### **MUSHARAKA PARTNERS :**

The number of partners is not limited to a specific number. It depends mainly on the project and the need to finance and manage it. A partner should be competent and able to conduct tasks on behalf of himself and the other parties.

#### **MUSHARAKA FINANCE :**

In this form of Islamic finance, all partners share the project financing. It is not necessary that they should have equal shares. Capital should be known and specified.

Another aspect of letting the other partners share the finance is a guarantee for the bank that the partners will use their best endeavours to manage the project.

It is valid also to have a partner who contributes his/her skills as his/her share. For this particular type of partner, mudaraba conditions are applied, (see section three of this chapter for mudaraba

conditions).

#### **MUSHARAKA MANAGEMENT :**

An Islamic bank is a partner and owner of the musharaka project, so the bank should take an active part in controlling the project side by side with the other partners. The experience of the Sudanese Islamic bank in the field of agriculture using musharaka as a policy of finance proved to be successful (Khalifa and Ibrahim 1983[106]). In this case a farmer(s) provides the land and the bank provides the capital such as machines and seeds.

#### **MUSHARAKA DURATION :**

A musharaka project can take one of the following forms:

- a. Permanent musharaka in which there is no time limit stated in the contract.
- b. Timed musharaka in which the project ends at a certain time.
- c. Musharaka in which a bank agrees to sell its share to the other parties either gradually or at a specified time in the future. The methodological principle is to finance the project then to sell the bank shares to other partners. That is done to encourage investments among those who cannot find finance (Shehattah 1987, page 12[166] and Ibrahim 1984, pages 21-46[91]).

#### **MUSHARAKA PROFITS :**

Profits must be shared in a pre-fixed ratio otherwise the musharaka contract is not valid. The parties agree in advance on the ratio in which the net profits are to be divided between them in order to prevent ambiguity. It is not necessary to have the same ratio as the ratio of capital contribution.

#### **MUSHARAKA LOSSES :**

In case of losses, these must be borne in proportion to the contribution of capital (International Islamic Bank for Investment and Development 1988, page 14[150]).

### **2.2.3. ADVANTAGES OF MUSHARAKA :**

In addition to the advantages discussed earlier (chapter one, section one), one can mention the following advantages :

a. Musharaka finance policy is very broad and flexible. It can take place in any economic activity, for example, agriculture, manufacturing, commercial or services. Also, musharaka can be used in any legal framework such as : company, corporation or with individual persons.

There are different forms of musharaka. Islam did not give strict rules to conduct musharaka; on the contrary Islamic Jurisprudence allows the freedom to form the conditions of musharaka contracts (Arfani 1984, page 9[48]).

b. Musharaka provides the motivation to banks to look for the best investment opportunities in terms of success and profits.

c. This form of investment/finance forces the bank to look after the project to insure its success. Consequently, the bank will share its own accumulated experience in the industry with the other investors.

d. Musharaka is suitable for long term investment, which has the potential of developing society socially as well as economically.

e. A musharaka contract is applicable on the international operation level (Abdulhameed 1988[2]).

### **2.3. THE MUDARABA FINANCE POLICY :**

The aim of this section is to highlight mudaraba as an Islamic finance policy as follows : 1) definition; 2) contract; 3) applications and; 4) limitations.

#### **2.3.1. MUDARABA DEFINITION :**

Mudaraba is profit/loss sharing (PLS), equity finance, and it is sometimes considered as a company (Aljarhi 1984[27] and International Islamic Bank for Investment and Development



1988, page 7[151]) or a specific form of musharaka. In mudaraba the entrepreneur does not have funds but has a programme idea and management expertise. He/she asks an Islamic bank to finance this programme while the entrepreneur's contribution is his/her work (Quraishi 1984[144]). It does not involve charging any fixed expenses, either as financing costs or as management costs (Attia 1986, page 6[51]).

### **2.3.2. MUDARABA COMPONENTS :**

A Mudaraba programme consists of project, purpose, partners, finance, responsibility, profits, losses, expenses, interference, conditions and examples.

#### **MUDARABA PROJECT :**

A project (programme) should be mainly in trading business, that is to say, buying and selling goods and commodities. But it is possible to have other economic activities, for example manufacturing as mudaraba programme (Aljarhi 1984, page 12[27]).

#### **MUDARABA PURPOSE :**

The purpose of mudaraba project is to make profits.

#### **MUDARABA PARTNERS :**

Mudaraba is a partnership between two parties : the finance provider (s), that is an Islamic bank, and the entrepreneur (s) who should be competent, adult and of sound mind.

#### **MUDARABA FINANCE :**

Mudaraba funds should be; specific, known and quantified, so as to avoid any misunderstanding, in a monetary or financial form not be in the form of debts and to be handed over to the entrepreneur at the establishment of the agreement or at the latest at the start of the operations. See also Alameen (1988, pages 21-29[12]).

#### **MUDARABA RESPONSIBILITY :**

The entrepreneur is trusted to safeguard the capital and keep it safe from any loss, damage and destruction. In the case of any losses resulting from negligence or carelessness of the

entrepreneur, he/she must be responsible for it. But if misfortunes occur outside the control of the entrepreneur, then he/she will not be responsible for them and the losses must be borne by the finance provider.

**MUDARABA PROFITS :**

Profits should be distributed according to the agreed ratio.

**MUDARABA LOSSES :**

If losses are made, the entrepreneur loses his/her work and the bank loses its funds.

**MUDARABA EXPENSES :**

Applications of mudaraba consider the expenses of mudaraba as a part of the costs charged to the gross return profits (Quraishi 1984, page 14[144]).

**MUDARABA INTERFERENCE :**

A finance provider should not interfere with the management and running of the business. He/she must leave this to the entrepreneur.

**MUDARABA CONTRACT CONDITIONS :**

- a. Mudaraba may or may not have time limit.
- b. It is allowed to restrict it to a certain location if desired.
- c. Also, mudaraba could be in any commercial business. But it is possible to confine it to a certain programme.
- d. The entrepreneur could have a free hand in mudaraba. In this case it is possible that he/she mixes mudaraba with other funds of his/her funds. He/she can delegate the job to others and he/she can choose the business or mudaraba could be restricted in these aspects.
- e. In any case, mudaraba finance cannot be contributed to charity.

**EXAMPLE OF MUDARABA :**

In countries where Islamisation of the banking system took place, laws have been passed to organise economic activities. To form a mudaraba company Pakistani law (Ahmad 1985, page

33[8]) requires the following :

- a. Paid capital must not be less than rupees five million.
- b. No director, officer or employee of the company has been convicted of fraud, breach of trust or an offence involving moral turpitude.
- c. The promoters are persons of means and integrity and have knowledge of matters with which the mudaraba company will deal.
- d. State permission.
- e. A religious board clearance that the business is halal.

### **2.3.3. MUDARABA APPLICATION :**

Two applications are worth mentioning. The first is that an Islamic bank accepts investment deposits from people on the basis of mudaraba (International Association of Islamic banks 1977, page 22[57]). So, three partners under the Islamic banking system share the outcome of business : depositors, the Islamic bank (representing its shareholders) and the entrepreneur (Wahid 1985, page 392[181]). The second application of mudaraba is that one form of joint venture between Islamic banks is conducted on a mudaraba basis in which Islamic banks pool funds to form a mudaraba company.

### **2.3.4. MUDARABA LIMITATIONS :**

One can mention three limitations of mudaraba (Attia 1986[51]) :

- a. It does not have a legal framework in modern company law to regulate its provisions.
- b. It presents difficulty in planning cash flows where it is not allowed to set a time limit but this could be overcome by using timed mudaraba.
- c. It requires complete trust and confidence since it is not allowed for the capital provider to interfere in the business.

## **2.4. THE MURABAHA FINANCE POLICY :**

The aim of this section is to highlight murabaha as an Islamic finance policy as follows : 1) definition; 2) forms; 3) processes; 4) payment; 5) advantages and; 6) disadvantages.

### **2.4.1. MURABAHA DEFINITION :**

Murabaha in its simple definition means resale with specification of gain (Homud 1987, page 1[86]). This finance policy is suitable to finance products for the purposes of consumption as well as production.

Islamic banks used it heavily especially at their start of operations (Shehattah 1987, page 13[166], Khalifa and Ibrahim 1983, page 108[106] and Alameen 1983, page 6[13]).

### **2.4.2. FORMS OF MURABAHA :**

- a. Resale of a product to those who order the purchase. It is necessary to disclose the original costs of the product.
- b. Resale on the basis of cost plus in which the original costs of a product must be disclosed. Negotiation can take place on the profit margin.

### **2.4.3. THE MURABAHA RESALE PROCESSES :**

Most murabaha practices are related to purchase orders. An Islamic bank buys a product, normally at the request of a client, who promises to buy it. The bank takes the risk whilst the product is in its ownership. (Carlson and others 1986[64]).

Negotiations take place as to the price, payment and other related matters. These negotiations normally take place before a bank buys a product.

If an agreement is reached and the product matches the agreed specifications, the client should honour the agreement. Whether it is a compulsory is debatable (Alameen 1983[13] and Hassan 1987, page 73 [84]).

From the foregoing discussion in this section it is clear that murabaha requires two contracts. The first is when a bank buys the product. The second is when the bank sells it to the ultimate

purchaser. For murabaha to be valid the first contract must be valid and not include any element of interest (International Islamic Bank for Investment and Development 1988, page 10[149]).

#### **2.4.4. PAYMENT :**

In any form of murabaha, once the contract between the bank and the client is signed, the ownership is transferred to the client.

Payment can take place at the establishment of the agreement or any time in the future. If the payment is not made at the establishment of the agreement, it becomes a debt and it is treated as a normal debt (see section one of the current chapter).

#### **2.4.5. MURABAHA ADVANTAGES :**

The bank's risk is limited in that the relation between the bank and the client becomes a lending one, so the bank can ask for suitable security (Attia 1986, page 14[51]). It is also suitable for domestic purposes.

#### **2.4.6. MURABAHA DISADVANTAGES :**

One can mention two practical limitations of murabaha (Attia 1986, page 14[51]) :

- a. Murabaha can only be used when goods are involved. It is not suitable to finance running expenses such as salaries.
- b. A profit margin is added to the production costs.

#### **2.5. THE MUZARAHA FINANCE POLICY :**

Muzaraha which is an Arabic term means simply crop sharing. The major components of the muzaraha contract are : land, labour and others such as seeds. One party cannot share by land and labour. In other words, a landlord gives up his/her land to other parties to cultivate it. Muzaraha is similar to mudaraba in this case where in mudaraba a finance provider authorises someone to use the finance aiming at making profits (Kahf 1991[101]).

In this form of investment the bank's share will be to provide labour, seeds, machinery and

whatever materials are needed for cultivating the land. The gross outcome is shared between the bank and the landlord. This policy is suitable for rural areas.

## **2.6. PRINCIPLES AND NATURE OF ISLAMIC FINANCE POLICIES :**

The aim of this section is to discuss some principles which are thought to be important from the practical point of view, that is the Islamic banks' point of view and that they explain further the nature of Islamic finance policies which the Islamic banks employ in their long term finance programmes.

### **2.6.1. PRINCIPLES OF FINANCE :**

#### **2.6.1.1. LOSS PRINCIPLE :**

The principle in Islam is that if one party (an Islamic bank) provided the finance and the other provided the labour and that if the project is a failure the bank will lose its finance. -

#### **2.6.1.2. UNCERTAIN RETURN :**

In musharaka, mudaraba and muzaraha an Islamic bank can only be sure of the ratio in which the profit are divided. It is uncertain at the first place whether a profit will be realised and it is not known for certain how much profits will be made. See also Khan (1991, pages 14-15[107]).

#### **2.6.1.3. TRUST PRINCIPLE :**

Islamic finance policies depend a great deal on trust, since a partner in musharaka project acts on behalf of the other partners in the project. Also, mudaraba requires complete trust. Therefore, there is, always, an element of risk originating from the trust, that is the possibility of deceitful partners.

In an interview with an Islamic bank manager, he said that it is hard to know the real motives of the entrepreneur (religious or mere commerce), it seems that some entrepreneurs deal with Islamic banks because they know that if they delay payments they will not additional cost. Two other reasons makes it more difficult, he added, to evaluate the entrepreneur : a) large number of entrepreneurs do not have proper accounts and; b) it is hard to depend on the entrepreneur's

records with traditional banks because some entrepreneurs change their behaviour when they deal with Islamic banks.

#### **2.6.1.4. NO COMPENSATION :**

The safest Islamic finance policies in terms of getting the finance back is murabaha. This policy also bears a high element of risk especially in the period when the bank owns the goods, that is before the client buys it from the bank. Also, where there is a delay in repaying the price, the Islamic bank cannot ask for compensation if the client is genuinely unable to repay.

All these features of Islamic finance policies make it bear high elements of risk compared to the traditional finance policy, that is lending with interest. The practical implications of these feature will be examined and discussed in depth in later chapters (chapters three, seven, eight, nine, ten and twelve).

#### **2.6.2. REQUIREMENT OF FINANCE :**

- a. In a musharaka project, an Islamic bank is one partner in the project therefore it is expected that it will not contribute 100% of the project finance.
- b. In a mudaraba project, an Islamic bank traditionally provides 100% of the project finance. However, recent applications suggest that Islamic banks can contribute less than 100%.
- c. In a murabaha project, an Islamic bank can provide 1-100% of the project finance.
- d. In muzaraha project, apart from the land, an Islamic bank can contribute 100% of the finance.

#### **2.6.3. SOCIETY OF APPLICATION :**

- a. Musharaka, mudaraba and murabaha are suitable for urban societies while muzaraha is suitable for rural societies.
- b. The musharaka, mudaraba, murabaha and muzaraha, that is 4M, finance policies can be used for productive purposes but murabaha is the most suitable policy to finance domestic purposes.

#### 2.6.4. OTHER ISSUES :

Other emerging points, although they are not fully examined in the thesis, should be recognised : in non Islamic banks loan with interest contract is clear, its tradition has been long established while in Islamic banks questions of defining profits and losses of project has not been touched upon. For instance, in a mudaraba contract, if the loss in a project were more than the capital, there is no evidence of how this problem is dealt with (indeed this also has a Sharia point of view that would also need investigation).

Further, another point regarding profit, the detailed description of how it is measured in practice is unclear. For instance, it is not clear, in a permanent musharaka project where the bank shares the project with entrepreneurs, how Islamic banks measure profits. Is it accounting profit or cash profit? If the former what accounting conventions apply and how are they audited to the satisfaction of the bank?



## CHAPTER THREE

### QUERIES AND HYPOTHESES

" Research always starts from a question or a problem of some sort " Selltiz Et al, (1966, page 2[159]).

It was explained earlier in chapter one, section one that the researcher noticed and observed the rise and success of the new banking system. These observations and discussions lead to a number of research questions and hypotheses.

The aim of this chapter is twofold : a) to discuss the research questions in detail and; b) to formulate detailed research hypotheses that will be examined in later chapters.

This chapter comprises two sections : 1) Queries and; 2) research hypotheses.

#### 3.1. QUERIES :

" The purpose of research is to discover answers to questions through the application of scientific procedures " Selltiz Et al, (1966, page 2[159]).

The aim of this section is to highlight the research questions which were briefly mentioned earlier (in chapter one, section two). These questions, on the one hand, were discussed and debated before the researcher was formally involved in this research investigation and on the other hand, were fully investigated for the purposes of the current research project. The questions raised can be grouped in two categories. First, questions related to the banks. These questions are answered in chapter six. Secondly, questions related to long term finance programme performance. These questions are answered in chapters seven, eight, nine ten and eleven.

**3.1.1. QUESTIONS RELATED TO THE BANKS** (Islamic and traditional banks, answered in chapter six) :

**3.1.1.1. AGE** (answered in chapter six, section one) :

The aims of answering questions related to age of banks here are : a) to serve as introduction to the analysis; b) to be used in later analysis and; c) it will provide further information which will be useful in the context of the study, that is to say, the comparison between groups and subgroups

of banks. The questions are as follows :

- a. How old the Islamic banking system is?
- b. Is it old/young compared to the traditional banking system?
- c. Does the Islamic banks age differ in relation to their location, that is Islamic banks-1/Islamic banks-2.
- d. Does the traditional banks age differ in relation to their type, that is commercial banks (traditional banks-1) and specialised banks (traditional banks-2)?

**3.1.1.2. TOTAL ASSETS** (answered in chapter six, section two) :

- a. What is the size of Islamic banks' total assets, each bank compared to the other banks in its country?
- b. and compared to traditional banks?
- c. Does the size of Islamic banks' total assets differ between Islamic banks-1 and Islamic banks-2?
- d. Does the size of traditional banks' total assets differ in relation to their type, that is traditional banks-1/traditional banks-2?

**3.1.1.3. CAPITAL IN 1991** (answered in chapter six, section three) :

- a. What is the size of Islamic banks' capital in 1991?
- b. Is it small/large compared to traditional banks'?
- c. Does the size of Islamic banks' capital in 1991 depend on their location?
- d. Does the size of traditional banks' capital in 1991 depend on their type?

**3.1.1.4. GROWTH** (answered in chapter six, section four) :

- a. How fast did Islamic banks grow in the period between 1986 and 1991?
- b. Compared to traditional banking industry, which industry achieved higher rate of growth in the same period?

- c. Is the Islamic banks' growth affected by their location?
- d. Is the traditional banks' growth affected by their type?

**3.1.1.5. BANKS' OWNERSHIP (answered in chapter six, section five) :**

- a. Who owns Islamic banks? Is it private/public ownership?
- b. Compared to traditional banks, what proportion of Islamic banks is private? Is it large proportion?
- c. Is the ownership of an Islamic bank affected by its location?
- d. Is the ownership of a traditional bank affected by its type?

**3.1.2. LONG TERM FINANCE PROGRAMMES (LTFP) :**

**3.1.2.1. RESOURCES INVESTED IN LONG TERM FINANCE PROGRAMMES :**

These questions are related to one aspect of the banks' long term finance performance namely the proportion of banks resources allocated to long term finance programme (answered in chapter seven, section one). These questions are as follows :

- a. What proportion of Islamic banks' resources is invested in long term finance programmes? Is it high/low compared to traditional banks'?
- b. Is this proportion affected by an Islamic bank's location, age or size of capital?
- c. Is this proportion affected by a traditional bank's type, age or size of capital?
- d. Is the application of any one of the Islamic finance policies, that is 4M, affected by an Islamic bank's location, age or size of capital?

**3.1.2.2. ISLAMIC FINANCE POLICIES (IFP) :**

These questions are related to the application of Islamic finance policies, that is 4M (musharaka, mudaraba, murabaha and muzaraha) to long term finance programme (answered in chapter ten).

These questions are as follows :

- a. How do Islamic banks invest in long term finance programme? that is to say what Islamic finance policies do they apply? Is it musharaka, mudaraba, murabaha or muzaraha? Which

policy is the most popular?

- b. Do Islamic banks get involved in all long term finance programme at the same level?, that is to say, is the involvement in individual long term finance musharaka programmes the same as the degree of involvement in individual long term finance murabaha, mudaraba and muzaraha programmes?
- c. What is the rate of return on each Islamic finance policies?

### **3.1.2.3. INVOLVEMENT IN INDIVIDUAL LONG TERM FINANCE PROGRAMMES :**

These questions are related to the degree in which banks get involved in individual long term finance programmes, that is the contribution to individual long term finance programme (answered in chapter eight). These questions are as follows :

- a. What is the degree of involvement in individual long term finance programme in the Islamic banking industry ? (answered in chapter eight, section one).
- b. Is the involvement in individual long term finance musharaka, mudaraba, murabaha or muzaraha programme affected by the Islamic bank's location, age or size of capital?
- c. What is the degree of involvement in individual long term finance programmes in the traditional banking industry? (answered in chapter eight, section two). Is it affected by a traditional bank's type, age or size?
- d. Which industry seems to be more involved in individual long term finance programme ? (answered in chapter eight, section three).

### **3.1.2.4. THE REQUIRED RATE OF RETURN :**

These questions are related to the required rate of return on long term finance programme in the banking industry (answered in chapter nine). These questions are as follows :

- a. What is the rate of return on long term finance programme ?
- b. Does this rate differ from policy to another?
- c. Is the rate of return affected by an Islamic bank's location, age or size of capital for any policy? (answered in chapter nine, section one).

- d. What is rate of return on long term finance programme in the traditional banking industry? Is it affected by a traditional bank's type, age or size of capital? (answered in chapter nine, section two).
- d. Which banking industry requires the higher rate of return? (answered in chapter nine, section three).

### **3.1.2.5. SUCCESS OF LONG TERM FINANCE PROGRAMMES :**

These questions are related to the proportion of successful long term finance programmes in the banking industry (answered in chapter eleven). These questions are as follows :

- a. What success do banks achieve in their long term finance programme ? Is it affected by their type, that is Islamic banks/traditional banks?
- b. Is it affected by an Islamic bank's location, age or size of capital?
- c. Is it affected by a traditional bank's type, age or size of capital?

### **3.2. RESEARCH HYPOTHESES :**

The hypotheses were briefly discussed earlier in chapter one, section two. The aim of this section is to further discuss and fully develop the research hypotheses. These hypotheses were drawn first from an extensive literature review discussed earlier in chapters one and two and secondly from the research questions discussed earlier in the first section of this chapter.

It should be clear that the hypothesis drawn in this chapter are not of equal importance to the literature : the analysis of some of the hypothesis, however, are known in the literature such as age. The analysis of other hypothesis is not know but at the same time is not of great importance to the literature : these hypotheses are mainly to examine the relation between the bank characteristics (age and size) in relation to their performance in the long term finance programmes. However, examining such hypotheses provide valuable empirical evidence which the literature lack.

One important reason as to why there is this high number of hypotheses is that the statistical approach followed in analysing the data requires a clear idea of what is being tested. In other

words, the statistical approach (loglinear) requires the researcher to formulate the idea in a form of a hypothesis.

The research hypotheses are discussed as follows : 1) type of bank; 2) Islamic banks' location; 3) Islamic finance policies (IFP); 4) traditional banks' type; 5) age of banks and; 6) size of banks.

### **3.2.1. BANKS' RESEARCH HYPOTHESES :**

These hypotheses are related to the bank's type, that is Islamic banks and traditional banks. The Islamic banking system started in the 1970's with no prior practical experience as explained in chapter one, section one, whereas the first traditional bank was established in 1920 (Al Massarif Al Arabyia 1984, page 19[96]). The traditional banking system adopted the western approach which operates on an interest basis as the basis of its operations as explained earlier in chapter two, section one. Therefore, it seems likely that the Islamic banks are less experienced than the traditional banks and that the Islamic banking industry has not yet reached the mature phase of its life cycle whereas the traditional banking industry has. These factors are reflected in the research hypotheses as follows :

#### **HYPOTHESIS NO. 3.2.1.1 :**

It is expected that the Islamic banks are younger than the traditional banks.

#### **HYPOTHESIS NO. 3.2.1.2 :**

It is expected that the Islamic banks are much smaller in terms of total assets than the traditional banks.

#### **HYPOTHESIS NO. 3.2.1.3 :**

It is expected that the Islamic banks are much smaller in terms of capital in 1991 than the traditional banks.

#### **HYPOTHESIS NO. 3.2.1.4 :**

It is expected that the Islamic banks grew at a faster rate than the traditional banks in the period between 1986 and 1991.

With regard to Islamic banks operating in non Islamic economies, Alhelo (1986, page 11[24]), discussed two problems facing them from the central bank supervisory policies as follows :

Central banks aim at protecting depositors and try to control the supply of funds in the market. Two monetary policies are applied, namely; banks must deposit a certain percentage of deposits in the central banks and banks must not exceed a certain percentage of deposits in lending (investing).

These two policies are not adequate for the Islamic banking industry from two different standpoints. First, Islamic banks have a direct investment rather than loans, that is to say, their investment does not greatly increase the money supply, in other words, it does not have a strong inflationary impact. Secondly, most inflow funds in the Islamic banks are investment deposits, for example Alhelo mentioned that 95% of inflow funds are investment deposits. Islamic banks accept funds on the basis of mudaraba (discussed in chapter two, section 3) which implies that if there is no (and/or within) time limit to the deposit, it is not obligatory for the bank to repay these funds, that is to say, there is no urgent need for a high level of liquidity. Therefore, investment deposits should be invested rather than kept in the central bank without any return (as Islamic banks do not take interest). The conventional policies which do not consider the special nature of the Islamic banking seems to hinder an Islamic bank from fully using its resources in investment operations. See also Ahmad (1987, page 68[53]).

Also, Shallah (1991[162]) found from his research that an Islamic bank is restricted in its investments to the short and medium terms as a result of the problems from operating under the supervision of unsuitable central bank's policies in an interest-based economy. In addition, some writers have noticed the lack of long term finance programme in the Islamic banking industry as discussed in chapter one, section one.

There is a lack of the technical expertise (Lutfi 1979, pages 6-7[117] and Shalabi 1984, page 61[161]) which is necessary to evaluate and follow the long term finance programme in the Islamic banking industry.

Islamic banks employ riskier finance policies than traditional banks. For example, in case of losses in long term finance musharaka, mudaraba or muzaraha, Islamic banks lose their finance. That is contrary to loans, where traditional banks can reclaim finance and interest in cases where the borrower made losses from the operations funded by the loan.

Also, it is not allowed for Islamic banks especially in non Islamic economies to run risky operations (Alnajjar 1984, page 7[41]). Alnajjar did not specify what exactly is meant by a risky operation, but it implies that Islamic banks are cautious in allocating a high proportion of their funds to long term finance programme and that they do not contribute a high proportion to individual long term finance programme, that is to say, they do not heavily involve themselves in long term finance programme.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.1.5 :**

It is expected that Islamic banks allocate a lesser proportion of their resources to long term finance programme than traditional banks.

**HYPOTHESIS NO. 3.2.1.6 :**

It is expected that Islamic banks are less involved in financing individual long term finance programme than traditional banks. In other words, Islamic banks contribute a lesser proportion to the finance of any individual long term finance programmes than traditional banks.

In addition to the risk discussed earlier that, for example, if the long term finance mudaraba failed the Islamic bank will lose its funds, the risk of the Islamic finance policies, for example musharaka and mudaraba, employed by Islamic banks is higher than the risk involved in loans employed by traditional banks as follows :

Some Islamic finance policies, for example mudaraba, require complete trust between partners as discussed in chapter two, sections three and six. There is a significant possibility of deceitful partners (Alnajjar 1984, page 7[41]).

These factors are reflected in the research hypotheses as follows :



**HYPOTHESIS NO. 3.2.1.7 :**

It is expected that Islamic banks require a higher rate of return on their long term finance programme than traditional banks.

As a result of their lack of experience and the more risky nature of their finance policies it is expected that Islamic bank will face problems and that they will not be particularly successful in implementing long term finance programme. These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.1.8 :**

It is expected that Islamic banks will achieve poorer results from long term finance programme than traditional banks.

There are conflicting factors as to the ownership of banks (Islamic banks/traditional banks). On the one hand, Islamic governments which Islamised their economies supported the establishment of Islamic banks by taking an active role in establishing Islamic banks or converting them to operate on an Islamic banking basis (see the Islamic banks' ownership hypothesis no. 3.2.2.6). On the other hand, Arab governments felt that it is their duty to foster development programmes so they support the specialised banks by taking an active role in establishing them as discussed in the traditional banks' hypothesis no. 3.2.4.5. These factors are reflected in the research hypothesis as follows :

**HYPOTHESIS NO. 3.2.1.9 :**

It is expected that there is no difference between the percentage of public ownership of Islamic banks and traditional banks.

**3.2.2. ISLAMIC BANKING RESEARCH HYPOTHESES :**

These hypotheses are related to the location of Islamic banks. On the one hand, some of the Islamic banks are located in three countries which Islamised their economies. These countries are Iran, Pakistan and Sudan (Islamic banks-2). For further discussion see chapter one, section one. On the other hand, the rest of the Islamic banks operate in non Islamic economies (Islamic

banks-1).

**HYPOTHESIS NO. 3.2.2.1 :**

The Islamic banking industry started in the 1970's. Therefore, it is expected that Islamic banks-1 and Islamic banks-2 are no different in terms of age.

It is expected that Islamic governments where the Islamisation of economy took place, forced the banks in their countries to convert their business to operate on an Islamic basis. This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.2.2 :**

It is expected that Islamic banks which were converted to operate on an Islamic basis, that is to say, were originally operated on an interest basis, to be established before the 1970's.

Some of Islamic banks-1 are from the Gulf and some of them are considered to be amongst the largest in the Islamic banking industry according to a survey conducted in 1990 by The Banker's Association in England and published in *Almajalla Journal* (1990, pages 34-47[32]) therefore Islamic banks-1 are expected to be larger in terms of size. These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.2.3 :**

It is expected that Islamic banks-1 are larger in terms of size of total assets than Islamic banks-2.

**HYPOTHESIS NO. 3.2.2.4 :**

It is expected that Islamic banks-1 are larger in terms of capital in 1991 than Islamic banks-2.

Islamic banks-2 are located in non oil, less rich countries and the economy of at least one of these countries is affected by a long war. These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.2.5 :**

It is expected that Islamic banks-1 grew at a faster rate than Islamic banks-2 during the period between 1986 and 1991.

A basic assumption about Islamisation is that the governments concerned facilitate the conduct of the economy on an Islamic basis (For further discussion see chapter two, section one). So, Islamic banks which operate in these countries enjoy facilities which might not be available, at the same level, to the other Islamic banks which operate in non Islamic economies (Islamic banks-1). Examples of these facilities are :

a. **LEGAL SYSTEM :**

Islamic banks-2 enjoy Islamic legal systems in case of disagreement with the entrepreneurs while the Islamic banks-1 do not enjoy this important facility.

Legislation, (perhaps the most important feature) suits and facilitates the conduct of banking business on an Islamic basis. Also, Islamic governments legislate in support of the Islamic finance policies (as explained in chapter two, section three). For further discussion on Islamisation of law and legal systems in muslim countries in general and Pakistan, Iran and Sudan in particular, see Mayer (1987[119]), Gordon (1985[78]), Bayat (1983[58]), Fluehr-Lobban (1990[73]), Kennedy (1992[105]). *On the other hand, Islamic banks in non Islamic economies (Islamic banks-1) are established in most cases on the basis of special legislation (International Association of Islamic banks 1977, pages 190-283[57]).*

"Contradictions continue to exist between special laws by which Islamic banks are established in non Islamic economies and the financial laws of the concerned countries"  
Alhelo (1986, page 8[25]).

b. **CENTRAL BANKS :**

Also, one important factor is that, Islamic banks-2 enjoy the supervision of central banks which operate on an Islamic basis and which have adopted policies suitable for Islamic banks, while Islamic banks-1 operate under the supervision of central banks which long ago adopted policies suitable to non Islamic banks see points discussed earlier on central banks' policies.

c. **OTHERS :**

The factors discussed earlier in hypothesis no.3.2.1.5.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.2.6 :**

Islamic governments support Islamic banks by taking an active role in their establishment. The hypothesis therefore is that a higher proportion of Islamic banks-2 are owned by the public sector than Islamic banks-1.

As discussed earlier musharaka, mudaraba and muzaraha finance policies involve a higher degree of risk than murabaha.

Alnajjar (1984, page 7[41]) pointed out that Islamic banks in non Islamic economies are prevented from conducting risky operations. This factor and others mentioned earlier are reflected in the following research hypotheses :

**HYPOTHESIS NO. 3.2.2.7 :**

It is expected that Islamic banks-2 invest a higher proportion of their resources in long term finance programme than Islamic banks-1.

**HYPOTHESIS NO. 3.2.2.8 :**

It is expected that Islamic banks-2 will have a higher proportion of their long term finance resources invested in long term finance musharaka, mudaraba and muzaraha than Islamic banks-1.

**HYPOTHESIS NO. 3.2.2.9 :**

As it is required that Islamic banks-1 are less involved in risky operations, it is expected that Islamic banks-1 invest a higher proportion of their long term finance resources in long term finance murabaha programmes, than Islamic banks-2.

Islamic economies provide a safer operating basis to Islamic banks than non Islamic economies.

This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.2.10 :**

It is expected that Islamic banks-2 are more involved in individual long term finance 4M programmes than Islamic banks-1. In other words, Islamic banks-2 contribute a higher proportion of the required finance of individual long term finance programmes than Islamic banks-1.

**HYPOTHESIS NO. 3.2.2.11 :**

It is expected that Islamic banks-1 require a higher rate of return on long term finance programme than Islamic banks-2 to compensate for the greater risk involved as a result of operating in non Islamic economics.

**HYPOTHESIS NO. 3.2.2.12 :**

Since Islamic banks-2 enjoy the facilities of Islamic economies it is expected that Islamic banks-2 will achieve better results from their long term finance programme than Islamic banks-1.

**3.2.3. HYPOTHESES RELATED TO ISLAMIC FINANCE POLICIES (IFP) :**

It is clear from the literature that the Islamic banks use heavily murabaha to the extent that it is considered as the backbone of finance in the Islamic banking industry as discussed in chapter one, section one and chapter two, section four. To examine the backbone of finance in the Islamic banking industry, however, various hypotheses will be tested related to the 4M (musharaka, mudaraba, murabaha and muzaraha). The analysis will compare the application of long term finance murabaha to long term finance musharaka, mudaraba and muzaraha. For further discussion see chapter ten.

As discussed in chapter two murabaha is the safest Islamic finance policy in terms of getting the finance back, it is also the easiest in the application. Moreover, it is used for domestic as well as productive purposes.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.3.1 :**

It is expected to find murabaha the backbone, ie the most important, of the long term finance programme in the Islamic banking industry.

**HYPOTHESIS NO. 3.2.3.2 :**

It is expected that murabaha is the most popular policy in the application to long term finance programme and that Islamic banks rarely use the other Islamic finance policies.

**HYPOTHESIS NO. 3.2.3.3 :**

It is expected that the Islamic banks invest a higher proportion of their long term finance resources in long term finance murabaha programmes than long term finance musharaka, mudaraba, and muzaraha programmes.

**HYPOTHESIS NO. 3.2.3.4 :**

It is expected that the Islamic banks are involved (measured by the contribution ratio) in a higher degree in long term finance murabaha programmes than long term finance musharaka, mudaraba, and muzaraha programmes.

**HYPOTHESIS NO. 3.2.3.5 :**

As murabaha is the least risky amongst the 4M finance policies (as discussed in chapter two), it is expected that the Islamic banks require lower rate of return on long term finance murabaha programmes than the rate of return on long term finance musharaka, mudaraba, and muzaraha programmes.

**3.2.4. TRADITIONAL BANKING RESEARCH HYPOTHESES :**

These hypotheses are related to type of bank in the traditional banking industry in the Arab countries. There are two main types of banks, viz commercial banks (traditional banks-1) and specialised banks (traditional banks-2).

In the Arab countries, traditional banks-2 were established later than traditional banks-1. The first commercial bank was established in 1920 while specialised banks (traditional banks-2) started in the 1960's. This factor is reflected in the research hypothesis as follows :

**HYPOTHESIS NO. 3.2.4.1 :**

It is expected that traditional banks-1 are older than traditional banks-2.

As traditional banks-1 include the commercial banks which are much older than traditional banks-2 it is expected that traditional banks-1 are larger. This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.4.2 :**

It is expected that traditional banks-1 are larger in terms of size of total assets in 1991.

**HYPOTHESIS NO. 3.2.4.3 :**

It is expected that traditional banks-1 are larger in terms of capital in 1991.

The traditional banks-2 have not yet reached their mature phase whereas traditional banks-1 have.

This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.4.4 :**

It is expected that traditional banks-2 grew at a faster rate than traditional banks-1 in the period between 1986 and 1991.

The main reason for establishing traditional banks-2 in the Arab countries was that governments wanted development to proceed at a faster rate therefore they established specialised banks to foster both development and long term finance programme (Al Massarif Al Arabia 1984, page 19[96]). Therefore it is expected that governments support specialised banks by taking an active role in the establishment of traditional banks-2.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.4.5 :**

It is expected that a higher proportion of traditional banks-2 are owned by public sector than traditional banks-1.

**HYPOTHESIS NO. 3.2.4.6 :**

As the purpose of traditional banks-2 is to foster long term finance programme, it is expected that traditional banks-2 invest a higher proportion of their resources in long term finance programme than traditional banks-1.

**HYPOTHESIS NO. 3.2.4.7 :**

It is expected that traditional banks-2 contribute a higher proportion of individual long term finance programme, ie they are more involved in individual long term finance programme, than

traditional banks-1.

As the purpose of traditional banks-2 is to foster long term finance programme, it is expected that the rate of return will not be a determining factor in financing a long term finance programme and that traditional banks-2 might finance programmes which do not have a high rate of return. These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.4.8 :**

It is expected that traditional banks-1 will require higher rate of return than traditional banks-2.

As the purpose of traditional banks-2 is to foster long term finance programme, this implies that they should be better prepared for financing long term finance programme. In a telephone interview with an industrial bank manager, he said

" we have all necessary facilities and resources available for long term finance programme ... it is our job to conduct long term finance programme ".

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.4.9 :**

It is expected that traditional banks-2 achieve better results from their long term finance programme than traditional banks-1.

**3.2.5. INFLUENCE OF BANKS' AGE :**

The banks'/Islamic banks'/traditional banks' long term finance performance was examined in relation to their age to see whether a bank's age influences its long term finance programme performance.

The assumption is that younger banks/Islamic banks/traditional banks are still constructing their commercial identity. They still do not have enough expertise to handle long term finance programme. Also, they compete to build their image, market, attract clients and so on. In other words, younger banks/Islamic banks/traditional banks have not yet matured.

These factors are reflected in the research hypotheses as follows :



**HYPOTHESIS NO. 3.2.5.1 :**

It is expected that younger banks/Islamic banks/traditional banks invest a lesser proportion of their resources in long term finance programmes than older banks/Islamic banks/traditional banks.

Long term finance musharaka, mudaraba and muzaraha programmes require more experience to handle than long term finance murabaha programmes. It is expected that older banks have gained more experience than younger Islamic banks which may help them to conduct more long term finance musharaka, mudaraba and muzaraha programmes.

This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.5.2 :**

Younger Islamic banks allocate a lesser proportion of their resources to long term finance musharaka, mudaraba and muzaraha than older Islamic banks.

**HYPOTHESIS NO. 3.2.5.3 :**

Younger Islamic banks allocate a higher proportion of their resources to long term finance murabaha than older Islamic banks.

Younger Islamic banks still lack the experience to handle long term finance programme. Also, they still have less inflow deposits than the older banks and mainly they depend on their capital to conduct long term finance programme. Therefore it is expected that a younger bank would contribute a lesser proportion to a project finance than older banks, in other words, they are less involved in long term finance programme.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.5.4 :**

Younger Islamic banks contribute a lesser proportion of finance to individual long term finance musharaka, mudaraba, murabaha and muzaraha programmes, ie are less involved in long term finance 4M programmes than older Islamic banks.

**HYPOTHESIS NO. 3.2.5.5 :**

Younger traditional banks contribute a lesser proportion of finance to individual long term finance programme, ie less involved in long term finance programme than older Islamic banks.

There is no special reference in the literature to the rate of return in relation to age. Also, for competitive market reasons younger banks presumably cannot charge more than older banks; prudence might dictate that they do not charge less. This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.5.6 :**

It is expected that there is no difference between younger and older Islamic banks in the required rate of return on long term finance musharaka, mudaraba, murabaha and muzaraha programmes.

**HYPOTHESIS NO. 3.2.5.7 :**

It is expected that there is no difference between younger and older traditional banks in the required rate of return on long term finance programme.

**HYPOTHESIS NO. 3.2.5.8 :**

It is expected that younger banks/Islamic banks/traditional banks achieve poorer results from their long term finance programme as they still do not have the experience of older banks.

**3.2.6. INFLUENCE OF BANKS' SIZE :**

The banks'/Islamic banks'/traditional banks' long term finance performance was examined in relation to their size of capital to see whether a bank's size of capital influences its performance.

One important source of finance for long term finance programme is long term funds, ie capital and deposits. Also, banks have to work under the supervision of central banks which require banks not to lend (invest) more than a certain percentage of their deposits as discussed earlier in hypothesis no. 3.2.1.5.

Small banks also, are limited in their network of branches inside and outside their countries which generally limits their operations and consequently their long term finance programme. Also, for competitive market reasons they presumably cannot charge more and, again; prudence might

dictate that they do not charge less.

These factors are reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.6.1 :**

It is expected that smaller banks/Islamic banks/traditional banks invest a lesser proportion of their resources in long term finance programme than larger banks/Islamic banks/traditional banks.

**HYPOTHESIS NO. 3.2.6.2 :**

It is expected that smaller Islamic banks invest a lesser proportion of their long term finance resources in long term finance musharaka, mudaraba and muzaraha programmes than larger Islamic banks.

**HYPOTHESIS NO. 3.2.6.3 :**

It is expected that smaller Islamic banks invest a higher proportion of their long term finance resources in long term finance murabaha programmes than larger Islamic banks.

**HYPOTHESIS NO. 3.2.6.4 :**

It is expected that smaller Islamic banks contribute a lesser proportion of finance to individual long term finance 4M programmes, ie are less involved in individual long term finance 4M programmes than larger Islamic banks.

**HYPOTHESIS NO. 3.2.6.5 :**

It is expected that smaller traditional banks contribute a lesser proportion of finance to individual long term finance programme, ie are less involved in individual long term finance programme, than larger traditional banks.

There is no special reference in the literature about the rate of return in relation to the size of a firm. This factor is reflected in the research hypotheses as follows :

**HYPOTHESIS NO. 3.2.6.6 :**

It is expected that there is no difference between smaller and larger Islamic banks in the required rate of return on long term finance 4M programmes

**HYPOTHESIS NO. 3.2.6.7 :**

It is expected that there is no difference between smaller and larger traditional banks in the required rate of return on long term finance programme.

**HYPOTHESIS NO. 3.2.6.8 :**

It is expected that younger banks achieve poorer results from their long term finance programme as they cannot handle the long term finance programme with the same efficiency as large banks.

## CHAPTER FOUR

### RESEARCH METHODOLOGY

Surveys, where the required data is considered confidential and that is the case of banking industry, may become much difficult in terms of data collection.

One strong argument as to why no research so far has been conducted in this research topic, on such a scale, is perhaps the major difficulties involved in collecting the required primary data.

This research survey has covered a large part of the globe. Knowledge of the different cultures, a global friendship network, skills to communicate, ability to motivate people to cooperate, patience, great expectations and determination are all necessary ingredients to be able to get the required data.

Obviously the number of questionnaires obtained must be sufficient to meet the requirements of statistical validity. That was not an easy task at all especially in the case of Islamic banking.

Unlike many traditional research methods which did not discuss the various problems encountered in research (Kulka 1982, page 44[115]), this research methodology chapter takes a descriptive approach to demonstrate exactly what took place during the instrument design and data collection. Various practical methodological issues experienced in this research will be discussed and analysed.

The chapter discusses, in depth, the approach followed in constructing the research instrument and gathering the required primary data. It comprises six sections : 1) the questionnaire preparation; 2) the questionnaire design; 3) the sample selection; 4) the address gathering; 5) the data collection processes and; 6) the characteristics of the sample.

#### 4.1. QUESTIONNAIRE PREPARATION :

The aim of this section is to discuss the evolution of the questionnaire as follows: 1) background of the research; 2) sources of ideas; 3) English versions; 4) Arabic versions and; 5) pilot study.

#### **4.1.1. BACKGROUND OF THE RESEARCH :**

The main aim of this research investigation is to provide empirical evidence of the differences between Islamic banks and traditional banks and to draw a picture of their long term finance performances. The nature of the study requires primary data to be obtained from banks around the globe so, it was thought that it was of a paramount importance to design a research instrument able to get the required primary data in an efficient way.

Various research instruments were considered but given that Islamic and traditional banks are scattered around the globe it was thought that a mailed questionnaire was the most suitable research instrument. A questionnaire therefore was constructed.

The research methodology literature is full of discussions on the various research instruments. For example Howard and Sharp (1983[88]), Leedy (1985[116]), Sudman and Bradburn (1982[173]), Moser (1989[123]), Nachmias and Nachmias (1985[128]), Smith (1975[169]), Schuman and Presser (1980[158]) and Bourque and Clark (1992[59]).

#### **4.1.2. SOURCES OF IDEAS :**

The questions were drawn from an extensive literature survey of the fields of Islamic banking, Islamic economics, capital budgeting, venture capital, banking, finance, financial management, accounting, economics, management science/operational research and other related disciplines.

Research surveys in these fields were of tremendous help in forming the questionnaire for this research survey. Various references to previous research surveys, which were consulted in the processes of constructing the current questionnaire, will be documented in section two of this chapter.

#### **4.1.3. ENGLISH VERSIONS :**

The questionnaires (appendix one) were first written in English. Detailed and lengthy discussions during the first term of the academic year 1990-1991 took place on the questionnaires especially with my two supervisors. Frequent meetings were held. Questions were discussed one by one.

Very careful considerations were given to the wording, clarity, lack of ambiguity, scales and details of the questionnaires.

Comments, suggestions from the pilot study and from various discussions with colleagues and other staff members were all considered and scrutinised.

Leading or loaded questions were avoided. From the covering letter it was made clear that the purpose of the questionnaire was to evaluate the practices of long term finance programme in banking.

#### **4.1.4. ARABIC VERSIONS :**

The English questionnaires were first written and then translated into Arabic. The aim of the translation was to ensure that the same meaning of the approved English version was conveyed to the Arabic reader.

In addition to the researcher's translation, the English versions were first given to Arab friends, who have specialist knowledge in banking business and accounting, to translate into Arabic. All the translated questionnaires were discussed with them in order to arrive at one wording.

Translated surveys conducted by the researchers at University of Kent at Canterbury were consulted. For example, in accounting Mostapha (1988[124]), Tobbal (1988[176]); in OR/MS Yousef (1988[186]). In addition, various Arabic references in finance and Economics were also consulted such as Alkhudairi (1987[30]), Alhawari (1988[20], 1988[21], 1988[22], 1980[18]), Aubaid (1989[52]), Assaf (1989[50]), Alsharqawi (1966[45]) and Abdulmajeed (1989[3]); in OR/MS Butrus (1983[63]).

The translated questionnaire finally was given to an Arab friend who specialised in Arabic studies for linguistic revision.

#### **4.1.5. PILOT STUDY :**

After the questionnaire was designed and written, it was subjected to a pilot study. It was used with people inside the UK and overseas. They were as follows :

**4.1.5.a. INSIDE THE UK :**

- a. Colleagues who were conducting research studies in the field at university of Kent at Canterbury (UKC) and other UK universities.
- b. Staff members at University of Kent at Canterbury who are interested in the same field of the research
- c. Banks' managers at English, Arab and Islamic banks in the UK.
- d. Research Centres in Islamic banking in the UK, for example The Islamic Foundation, Leicester.

**4.1.5.b. OVERSEAS :**

The questionnaire was sent overseas to people who are interested in the same field of research. They were bankers, academicians, research centres and researchers. The researcher had met some of them one year earlier in Egypt : detailed discussion took place on the researcher's area of interest. One or more persons, who are interested in research in banking, were contacted in the following overseas organisations :

- a. Al Azhar University, Cairo, Egypt.
- b. King Abudalaziz University, Jeddaha, Saudi Arabia.
- c. The Research Centre for Islamic Economics, King Abudalaziz University, Jeddaha, Saudi Arabia.
- d. The Research Centre for Islamic Economics, Islamic Development bank, Jeddaha, Saudi Arabia.
- e. University of United Arab Emirates.
- f. The Research Centre for Islamic Economics, International Islamic Bank for Investment and Development (IIBID), Cairo, Egypt.
- g. The International Association of Islamic Banks (IAIBs), Cairo, Egypt.

The final versions of Arabic questionnaires were sent to Amman - Jordan in order to be word



processed using computing facilities available there.

#### **4.2. THE QUESTIONNAIRE DESIGN :**

"If you want an answer, ask a question. Whether it is an attempt to reconstruct the past, describe the present or predict the future, the questionnaire and the interview have come to dominate the collection of information in the social sciences" (Shipman 1982, page 89[167]).

The aim of this section is to highlight and briefly discuss the contents of the questionnaire (the full questionnaires for both Islamic and traditional banks are represented in appendix one) as follows : 1) scales; 2) considerations; 3) questionnaires references; 4) the Islamic banking questionnaire and; 5) the traditional banking questionnaire.

##### **4.2.1. SCALES :**

Three types of scales were employed in the pre coded questions :

- a. Yes/no type of questions.
- b. Ratio scales used mainly to get some financial ratios of the banks' long term finance programme performance.
- c. Likert scales which took the form small, medium and large.

To give respondents freedom to add, comment, criticise, and / or advise, an empty space was left after each pre coded question.

##### **4.2.2. CONSIDERATIONS :**

###### **4.2.2.a. PERIOD OF LONG TERM FINANCE PROGRAMME :**

There is no strict guideline to determine the length of the long term finance programmes. The length mainly depends on the purpose. However, in commercial operations, less than one year is normally considered short term, one to two years medium term and more than 2 years is long term. For the purposes of this research study, however, it was thought that the most suitable

minimum length of a long term finance programme is more than two years. The following are the reasons :

- a. Discussion with bankers,
- b. A thorough literature review (Hamdan 1984, page 34[82]).
- c. The vast majority (71%, table 4-10) of the surveyed traditional banks are commercial banks which generally prefer short term operations (Al Massarif Al Arabyia 1984, page 52[96] and Nienhans 1985, page 13[129]). This implies that commercial banks are not heavily involved in very long term programmes, for example 10 years. Therefore, it was decided to restrict the length of long term finance programme to more than 2 years. In other words, a length which is likely to be applied by banks.

#### **4.2.2.b. POLICIES SURVEYED :**

In this research four Islamic finance policies are fully investigated. These policies are musharaka, mudaraba, murabaha and muzaraha, that is 4M. These policies were discussed earlier (in chapter two).

There was no specific reason for this choice but the decision to include only these policies was based on the following :

- a. To the best of the researcher's knowledge, there were no surveys conducted on the Islamic finance policies employed by the Islamic banks in the long term finance programmes. Therefore, it was necessary to decide which policies should be included in the research survey.
- b. From the literature review (chapter two) it seemed that murabaha was the most popular policy used in Islamic banks while musharaka and mudaraba are the most favoured policies among the theorists of Islamic banking to the extent that the Encyclopedia of Islamic banking (Alhawari 1988[23]) devoted one whole volume to musharaka finance policy alone. Therefore, it was decided to include musharaka, mudaraba and murabaha in the research survey.

- c. The muzaraha finance policy is thought to be the most suitable policy for farming and the development of rural areas. Therefore, it was decided to include muzaraha in the research survey.
- d. The researcher did not feel that there was any other policy that was widely used in Islamic banks that needed to be included in the survey at the time of constructing the research instrument. Therefore, it was decided to include only the 4M finance policies.

#### **4.2.3. QUESTIONNAIRE REFERENCES :**

Various references were consulted in constructing the questionnaires. For example, Abufakhra (1988[4]), Klammer (1973[114]), Pike (1981[136], 1983[139], 1983[143], 1983[140], 1986[138], 1988[142], 1991[141]), Pike and Ooi (1988[137]), Pike and Simon (1991[168]), Schall (1978[157]), Moore (1983[122]), Vandell and Stonich (1973[179]), King (1975[113]), Kim and Farragher (1981[112]), Bromwich (1970[62]), Rappaport (1979[146]), Istvan ([93]). Other surveys were also consulted such as : Bovaird (1990[60]) and Wolfe (1986[185]).

Other references, especially in finance, financial management and managerial accounting, were also consulted such as, Brealey and Myers (1984[61]), Franks and Scholefield (1974[74]), Arnold and Hope (1983[49]), Van Horne (1974[180]), Weston and Brigham (1975[182]), Horngren (1974[87]).

The researcher looked at these references in the process of constructing the questionnaires. Moreover, contacts were established with researchers (for example, Pike, Bradford University), for consultation on the latest work in capital investment research.

#### **4.2.4. THE ISLAMIC BANKING QUESTIONNAIRE :**

The aim of this subsection is to provide a brief discussion on the covering letter and the questions of the Islamic banking questionnaire. In addition to the covering letter, the questionnaire was designed and written in two sections.

The covering letter (Appendix one) introduced the reader to the aims of the research and the aim of the questionnaire. It included a confirmation that any information given would be kept strictly

confidential and that it would be used only for the purpose of academic research. A confirmation that no bank name would be mentioned was also given.

The questionnaire is divided into two parts : a) questions related to the banks and; b) questions related to long term finance programmes.

Before conducting discussion in detail of the questionnaire questions, it must be stated that questions in section two, are directed towards getting evidence on practical aspects of long term finance in banking, especially in Islamic banking where literature in this area is lacking. The questions, therefore, seek to cover a gap in the banking literature.

#### **4.2.4.1. DEMOGRAPHIC DATA ON BANKS :**

These questions seek to obtain information on the bank. They are as follows :

- a. Date of answer : (discussed in chapter five, section two).
- b. Respondent position : ... (discussed in chapter four, section five).
- c. What country is the bank's headquarters in? (discussed in chapter four, section six).
- d. Is the bank owned by the government(s)? Yes/No. (analysed in chapter six, section six).
- e. What is the bank's age? 0-10( ) 11-20( ) 21-30( ) 31-up( ) (analysed in chapter six, section one).
- f. Was the bank established as an Islamic bank from the beginning? Yes/No (analysed in chapter six, section one).
- g. What is the bank's Capital (Equity) in million USA Dollars? Now (1991) 0-50( ) 51-750( ) 751-up( ) (analysed in chapter six, section four).
- h. If you compare your bank with other banks in the country, in terms of total assets, would you say that the bank is : small( ) medium( ) large( ) (analysed in chapter six, section two).
- i. Would you describe the average annual growth in total assets during the last 5 years as : less than 10%( ) 11-30%( ) 31-up%( ) (analysed in chapter six, section five).

**4.2.4.2. QUESTIONS RELATED TO LONG TERM FINANCE PROGRAMMES :**

- a. What is the ratio of your bank's annual long term investment to total assets? less than 10%, 11-30%, 31-up%, (analysed in chapter seven, section one).
- b. What is the ratio of long term finance of each Islamic finance policies to total long term finance, for example, long term finance musharaka programme to total long term finance programmes. (analysed in chapter seven, section one).

Table 4-1				
Ratio of long term finance using the 4M policies to total Finance in Islamic banks				
Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
00-30%	( )	( )	( )	( )
31-60%	( )	( )	( )	( )
61-100	( )	( )	( )	( )

- c. Would you specify the maximum percentage of a project's finance that the can offer using Islamic finance policies : musharaka, mudaraba, murabaha and muzaraha (4M). (analysed in chapter eight, section one).

Table 4-2				
Would you specify the maximum percentage of a project's finance that the bank can offer using 4M in IBs				
Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
00-30%	( )	( )	( )	( )
31-60%	( )	( )	( )	( )
61-100	( )	( )	( )	( )

- d. What is the after tax minimum rate of return required on long term finance programmes using 4M (musharaka, mudaraba, murabaha and muzaraha) in Islamic banking. (analysed in chapter nine, section one).

Table 4-3				
after tax minimum rate of return required on long term finance programmes using 4M in IBs				
Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
00-15%	( )	( )	( )	( )
16-30%	( )	( )	( )	( )
31-100	( )	( )	( )	( )

- e. What proportion of long term investments are successful, that is to say, have generated the desired results : less than 40%, 41-60%, 61-100%, (analysed in chapter ten).

#### **4.2.5. THE TRADITIONAL BANKING QUESTIONNAIRE :**

The two questionnaires are similar except in the following respects :

- a. The use of terminology :
  - a.i. As explained earlier (chapter two) Islamic banks apply Islamic finance policies, that is 4M, as their finance policies while traditional banks use lending (loans) as their finance policy. Consequently, questions about Islamic finance policies, that is the 4M, in the Islamic banking questionnaire were replaced by questions about loan policies in the traditional banking questionnaire.
  - a.ii Another basic difference between the two questionnaires is that Islamic finance policies are called investment policies and/or methods and/or instruments in the Islamic banking literature. In other words investment and finance are used interchangeably and policy, method and instrument are used interchangeably as well. As a result, ' investment ' is used in the Islamic banking questionnaire while ' loan (lending) ' is used in the traditional banking questionnaire.
- b. An additional question in the traditional banking questionnaires was devoted to getting information on whether the bank is a commercial, industrial, housing etc. that is the type of bank.

#### **4.3. SAMPLE SELECTION :**

The aim of this section is to discuss the population of the research study : why it included the countries and banks it did? It is extremely important in order to understand the shape of the selected sample to bear in mind that the basic hypothesis and/or objective of this research study is to examine the Islamic banks compared to the traditional banks in terms of age, size, growth, ownership and performance of long term finance programmes. This section is discussed as follows : 1) population size; 2) population geography; 3) the traditional banking system sample; 4) the Islamic banking system sample.

#### 4.3.1. POPULATION SIZE :

One of the main problems encountered in this research was to decide the population size so that it would be possible to decide a sample size. The problem emerged because of the nature of this research investigation, where the focus is on the finance policies used in banks. Therefore, the question arises as to why the survey included the banks it did? In addition to the reasons discussed earlier (chapter one, section two), this section aims at further discussing this question.

#### 4.3.2. POPULATION GEOGRAPHY :

##### 4.3.2.a. TRADITIONAL BANKING COUNTRIES (POPULATION) :

Before discussing why the survey included the banks it did, it would be appropriate to mention the location of these banks. Table 4-4 shows Arab states which were included in the traditional banking survey.

ARAB COUNTRIES WERE INCLUDED IN THE SURVEY		
1	Gulf states	Saudi Arabia, Qatar, UAE, Bahrain, Oman, Kuwait**
2	Other Arab	Jordan, Lebanon, Iraq**, Syria*
3	North Africa	Algeria, Morocco, Mouretania*
4	Other African	Sudan, Egypt, Libya*, Tunisia*
Total		17

(\*\*) : Iraq and Kuwait were excluded from the survey because of the second Gulf crisis which had started on the second of August 1990.

(\* ) : Banks in Libya, Syria, Tunisia and Mouretania declined to participate.

Table 4-4 shows that almost all Arab states were included in the survey from which the sample was drawn for the traditional banking system.

##### 4.3.2.b. ISLAMIC BANKING COUNTRIES (POPULATION) :

In addition to the Arab countries mentioned earlier (table 4-4). Table 4-5 shows the other countries which were included in the Islamic banking survey.

1	Africa	Senegal, South Africa, Niger, Guinea
2	Asia	India, Pakistan, Iran, Philippines, Malaysia Bangladesh,
3	Europe	UK, Luxembourg, Switzerland, Denmark
4	America	Bahamas
	Others	Turkey, Cyprus
	Total	17

In addition to the Arab countries, the survey included other countries where Islamic banks are found. Islamic banks in these countries were the population from which a sample was drawn.

#### 4.3.3. THE TRADITIONAL BANKING SYSTEM SAMPLE :

The traditional banking sample includes the Arab interest based banks in Arab countries. The aim of this section is to discuss this choice as follows; why Arab banks?, why not one Arab country? and why not non Arab countries?

##### 4.3.3.a. WHY ARAB BANKS? :

The reasons why Arab banks (interest based system), that is traditional banks, were chosen for this research study are that :

- a. There is a lack of studies in long term finance programmes in the traditional banking industry in Arab countries.
- b. It would be more reasonable to compare organisations with similar social and economic backgrounds. It would not be fair to compare the performance of one organisation with another one from different background. So, it was decided to choose Arab banks which were based on interest to compare with Islamic banks.
- c. The majority (59%, table 4.9) of the surveyed Islamic banks were Arab. Therefore, it was decided to compare the Islamic banking industry with the traditional banking industry.
- d. Three surveys of top Arab banks in the world in terms of capital adequacy and assets size had previously been conducted. Two of them were on the top fifty Arab banks (Journal of Arab Bankers 1988, pages 18-19[47] 1989, pages 16-17[46]). The third survey, was on the



largest one hundred Arab banks in the world and was conducted by the Banker's Association in England (Almajallah Journal 1990 pp.33-45[31]). These surveys were very simple in their presentation, that is to say, did not include any critical analysis. Therefore, it was decided to choose the top Arab interest based banks to compare with Islamic banks.

#### **4.3.3.b. WHY NOT ONE ARAB COUNTRY? :**

First, as explained earlier, the literature lacks empirical research on long term finance in the traditional banking industry. Therefore it was thought that the study should include the traditional banking industry.

Secondly, another reason is that Islamic banks are located over all Arab countries. So, to compare results of Islamic banks, and traditional banks the comparison needed to be made a sample with similar diversity. Taking one Arab country would not give much location diversity.

Thirdly, also, the nature of statistical techniques used for analysis requires more cases than can be found in any single country. Therefore it was decided to include banks from all Arab countries.

Fourthly, Arab countries are similar in terms of social and economic structure so it was decided to include them as one group.

#### **4.3.3.c. WHY NOT NON ARAB COUNTRIES? :**

As explained earlier, the traditional banking industry was chosen to be compared with Islamic banking. This was for many reasons. They are as follows :

First, considering time, finance and other resources, it seemed unreasonable for the researcher to include all banks all over the world or all over the Islamic banks countries. It is justifiable in social research to take in account the resource availability (Kulka, McGrath and Martin 1982, pages 41-69 [115] and Hakim 1987, page 120[81]).

Secondly, as some of the largest Arab banks are located in non Arab countries, that is London, they were included in this study.

Thirdly, the main finance policy used in traditional Arab banking is the same as in any other

banking system in any other country namely : loan with interest. This implies that :

- a. An Arab interest based bank shares the same philosophical basis as any other bank regardless of location.
- b. The main theme of the research is the analysis and comparison of long term finance programmes in the two banking systems. As the Arab interest based banking system apply the same finance policy, that is, loan with interest, as any other banking system, it was decided to choose the Arab banking system;
- c. Choosing Arab banks serves to limit the population of the study which is important because of the limited resources available for the research;
- d. Primary data collection on capital investment proved to be not easy in other researches, for example Pike (1981[139]).

Therefore, it was decided to include interest based banks which the researcher is more familiar with, that is the Arab banking system, rather than other banking systems. Also, the researcher started his contacts with Arab banks earlier than the formal start of this research (as explained in chapter one, section one). So, it was decided to include the Arab banks to make the collection of the primary data easier (though in practice it was not, for further discussion on the problems encountered in collecting the research primary data, see sections four and five of the current chapter).

#### **4.3.4. ISLAMIC BANKING SAMPLE :**

In addition to Islamic banks in Arab countries, the Islamic banking sample included Islamic banks wherever they are, that is to say, regardless of their location. This section aims at exploring the reasons for this choice, that is to say, why this survey investigation included non Arab Islamic banks.

#### **4.3.4.a. WHY NON ARAB ISLAMIC BANKS? :**

It was decided that Islamic banks regardless of the location should be included in this survey study. That is because of the following factors :

First, the main domain of the investigation is the banking function and finance decision.

Secondly, as, on the one hand, interest base banks share the same philosophy of lending with interest as a finance policy, Islamic banks on the other hand, are united in their philosophy of using Islamic finance policies, that is to say, there is no difference in principle between musharaka conducted in an Islamic bank located in Egypt or Pakistan.

Thirdly, it would be unreasonable for a major survey investigation, as this one, to be conducted on the Islamic banking industry without referring to the Iranian and Pakistani experience in Islamic banking where the whole economy including the banking sector is based on Islamic principles. For further discussion on the sample size, response rate and countries included in the survey, see the next section.

For these reasons and others discussed earlier (in chapter one, section two), it was decided to include all Islamic banks in this research study.

#### **4.4. ADDRESSES AND RESPONSE RATE :**

One of the main problems encountered in this research was to get the addresses of the banks. This problem emerged because there is no centralised information office able to provide a list of banks in the Arab world nor in the muslim world. This section aims at discussing the attempts that were made to construct a list of banks and banks' addresses as follows : 1) the Islamic banks' sample; 2) Iranian Banks; 3) the traditional banks' sample; 4) Jordanian Banks; 5) the traditional banks' addresses; 6) the Islamic banks' response rate and; 7) the traditional banks' response rate.

##### **4.4.1. THE ISLAMIC BANKS' SAMPLE :**

In the case of Islamic banks a number of contacts were made with four organisations concerned with research in Islamic economics. They are : The Islamic Foundation in the UK, The

International Association of Islamic Banks (IAIBs) in Cairo, The Research Centre for Islamic Economics, King Abdulaziz University in Jeddah and The Research Centre for Islamic Economics, The Islamic Development Bank in Jeddah. Lists of Islamic banks were provided by these organisations.

The most comprehensive list was the one obtained from International Association of Islamic Banks but a review of the others was made to detect whether there were any other banks left unmentioned in that list. However, the lists obtained were not trouble free. Two problems emerged at this stage. One major problem was that no Iranian bank was mentioned in these lists. The second problem was that some lists did not differentiate between whether the address was for a branch, representative office or a bank headquarters.

#### **4.4.2. IRANIAN BANKS :**

To demonstrate the scale of the problem, some of the procedures which were undertaken to get the addresses of the Iranian banks will be briefly discussed :

- a. A friend's father who is an Iranian and works at Iranian bank in London was contacted. He was requested to write to his bank headquarters in Iran to help in delivering the questionnaire and at the same time to provide the name of a person who works in the Iranian central bank who could be contacted.
- b. A contact was made with a supervisor's Iranian friend who is a Professor at an Iranian University but it was not of great help.
- c. A contact was made with an Iranian author who publishes on Islamic banks and works at the UN. He provided a name in the Iranian central bank to be contacted.
- d. A contact was established with the economic unit in the Iranian Embassy in London. They provided a list of three banks.
- e. A contact was established with a friend who works at an Islamic banks in the Gulf and was in a training programme in Islamic banking in Iran. He was able to distribute a couple of questionnaires.

- f. Contacts were made with people in the central bank of Iran. They helped in following some questionnaires in the Iranian banks. Four questionnaires were received from them.
- g. There were many other unsuccessful attempts.

#### **4.4.3. THE TRADITIONAL BANKS' SAMPLE :**

Three surveys of top Arab banks in the world in terms of capital adequacy and assets size had previously been conducted. Two of them were on the top fifty Arab banks (*Journal of Arab Bankers* 1988, pages 18-19[47] and 1989, pages 16-17[46]).

The third survey, which was the base of Arab banks' research sample of this research investigation, was on the largest one hundred Arab banks in the world and was conducted by the Banker's Association in England. The results were published in *Almajallah* (1990, pages 33-45[31]). Although the survey helped in identifying the names of banks it did not help in finding the corresponding addresses of these banks. Therefore, there was a need to find these addresses.

The survey however contained some Islamic banks. They were excluded from this sample because they are included in the Islamic banks' sample.

Also, Iraqi and Kuwaiti banks were excluded from this research survey because of the second Gulf crisis which started on the second of August 1990. It is not out of place to mention that some attempts were made to include their branches in London, Bahrain and Amman but they declined to participate.

Excluding these banks from the survey list of the top one hundred Arab banks in the list left sixty five banks.

#### **4.4.4. JORDANIAN BANKS :**

In addition to the 65 banks, it was thought that it would be appropriate to include all the other sixteen financial institutions operating in Jordan which were not included amongst these sixty five banks. The reason is that Amman constitutes a cornerstone in the Arab financial market. It has a very well established financial market and it is expected to have a greater role in the future.

(section five of this chapter sheds light on the sample from different angles). Also, the idea of extending the financial market to establishing an international financial market is under discussion (Musa 1984, pages 24-27[127] and 1984, pages 22-28[126]).

For the addresses, contacts were established with the Jordan Central Bank and the Jordanian Bankers' Association.

#### **4.4.5. THE TRADITIONAL BANKS' ADDRESSES :**

To get the addresses of Arab banks a number of contacts, and visits whenever it was possible, were made to :

- a. The Arab League offices in London,
- b. The Arab British Chamber of Commerce in London,
- c. Central Banks in different countries and
- d. Arab Banker associations in the Arab countries and in London.

In the end two lists of Arab banks were obtained. One from the Arab Bankers' Association in London. It provided good coverage of the banks' addresses in the Arab world. The second was from Arab British Chamber of Commerce. It provided good coverage of the banks' addresses in London.

#### **4.4.6. THE ISLAMIC BANKS' RESPONSE RATE :**

Two strategies were followed. The first was to contact every bank. The second was never to give up if there was a little light at the end of the tunnel.

Some forty nine Islamic banks were contacted. Seven of them were not able to fill in the questionnaire because they did not offer long term finance. One Islamic bank was excluded because it was located in Kuwait. The population size, therefore, including the Iranian banks, was restricted to forty one Islamic banks. Table 4-6 shows a response rate of 83%.

Table 4-6	
Population size	41
No answer	7
Answers	34
Response Rate	83%

#### 4.4.7. THE TRADITIONAL BANKS' RESPONSE RATE :

Table 4-7 shows a response rate of 92.6%.

Table 4-7	
Original list	65
Other Jordanian	16
Population size	81
No answer	6
Answers	75
Response Rate	92.6%

For more description of the sample see section six of this chapter.

#### 4.5. DATA COLLECTION PROCESSES :

Once the lists of the banks ready and the translated Arabic versions of the questionnaires were typed and printed a new phase of the research began in December 1990. For discussion on the dates of receiving the completed questionnaires back, see chapter five, section two. The aim of this section is to discuss the administration of data collection as follows : 1) administration; 2) follow up; 3) complaints and; 4) difficulties.

##### 4.5.1. ADMINISTRATION :

For banks in Arab countries English and Arabic copies of the questionnaires were sent to each bank. Otherwise, only the English copy was sent to each bank.

In most cases mail was used to send off the questionnaires to their destinations. In a few cases however a fax was used, especially in cases where a prior contact was established with the managers concerned and because of their request to send them the questionnaire in this way.

In the first round the questionnaires were sent to the credit managers ; but from various telephone calls it was established that they should be directed to the bank manager who would be able to authorise the completion of the questionnaire and channel it to the people concerned and this was done subsequently. Otherwise, if there was a prior contact the questionnaire was addressed to the

manager concerned who had promised to ensure its completion. Table 4-8 shows the respondents' positions.

It should be mentioned that in most cases no one person nor one department could fill in the whole questionnaire. Table 4-8 shows the position of the respondents who completed or took the responsibility for ensuring the completion and return of the questionnaire.

	Islamic (IBs)		Traditional (TBs)	
	Frq.	%	Frq.	%
Head office/Managing Director/ General Manager/G. M. Assistant	9	26.5	15	20
Manager/ Senior/ Assistant	6	17.6	17	22.7
Chief Accountant/Accounting Dept	2	5.9	3	4
The Bank	3	8.8	10	13.3
Fin. & Inv. Manager/Finance/Dept M. Assistant for lending	3	8.8	17	22.7
Marketing Manager/Customer Dept Bank Consultant/Financial Advisor	3	8.8	0	0
Head of Department/Monitoring Division/Branch Manager	2	5.9	10	13.3
Analyst/Economic expert/Head of Research/Planning/Project Department	6	17.6	3	4
Total	34	100	75	100

As explained earlier (in section four of this chapter) the Islamic banks' sample included the whole population. For Arab banks, questionnaires were sent to the bank headquarters in the country of origin as shown in the list which was provided by the Arab Bankers' Association in London.

For Arab banks in London, all addresses listed in the Arab British Chamber of Commerce were contacted. These addresses however were a mixture of branches, representative offices and banks. The questionnaire was sent to all of them because it was hoped that London' branches and representative offices would help in sending the questionnaire to their headquarters so it would be easier to follow up.



#### 4.5.2. FOLLOW UP :

In most cases, if not all, a composition of two or more of the following methods were used to follow up the questionnaire :

- a. **Reminders** : sending the questionnaire together with the original covering letter and a reminder time after time.
- b. **Phone calls** : where it was possible, telephone calls were made.
- c. **Visits** : where it was possible, the researcher visited the bank and met with the managers concerned. Sometimes the questionnaire was filled in during the meeting. It often took more than one visit to fill in a questionnaire. If a respondent filled in the questionnaire during the visit, it normally lasted a three to four hours. Otherwise, meetings were ended with promises to complete and mail the questionnaire. For research purposes, the researcher visited three places. They were : Cairo, London, and Saudi Arabia.

**Example** : the following example is an illustration of a, b and c (in other words, reminder, telephone calls and visits). A questionnaire was sent to the deputy managing director of a bank in London. The researcher had met him earlier at a conference in Islamic banking. Then three reminders were sent to him once a month. When no reply was received a telephone call was made. The outcome was that he had left and a new manager was taking care of the questionnaire. It happened that the researcher had met with the new manager twice beforehand for business purposes. About fifteen telephone calls, however, were made to him and two visits. In the end, the questionnaire was received half empty half complete. Never to give up was the strategy. A contact was established with another manager and a visit was made until at last the completed questionnaire was received.

- d. **Friends** : where possible, friends followed up the questionnaires. In most cases they had to make several visits to the bank before it was completed. The researcher was told that the difficulties were :
  - i The questionnaire had to be completed or authorised by the head office and not by the local

branch.

- ii Often it needed the cooperation of more than one person/ department in a bank to complete a questionnaire.
- e. Organisations : where it was possible, a research centre or a central bank was asked to follow up the questionnaire. The researcher was told they used faxes and telephone calls to follow up the questionnaires.

A seminar was conducted on the research topic in June 1992 at the Research Centre of Islamic Economics, King Abdulazis University in Jeddah. The members of the research centre were helpful in introducing the researcher to Islamic banks in order to obtain completed questionnaires.

#### **4.5.3. COMPLAINTS FROM THE RESPONDENTS :**

The aim of this subheading is to highlight some of the criticisms and difficulties experienced in the data collection.

Complaints were made to the researcher about the questionnaire. These complaints were :

1. **Confidentiality** : most banks, if not all, were concerned about confidentiality and that the questions dealt with matters that are top secret in the bank. Some of them asked for additional confirmation of confidentiality from the university. Others refused, from the start, to cooperate on confidentiality grounds.

In a meeting with a head of one of the biggest research centres in Islamic banking in Jeddah, he commented that the questionnaire asked about confidential banking policies, which is not easy to get revealed.

2. **Data readiness** : almost two thirds of the questionnaire depends on factual data. Therefore, the respondent had to consult the bank's records. That was not easy for them because the data were not ready in the form that the questionnaire required. Some calculations were needed especially for the ratios questions.

3. **Specialists** : in most cases, if not all, the questionnaire needed more than one person/department to complete it. They needed specialists and normally it involved top/middle management.
- 4 **Length** : a common complaint was that the questionnaire asked too many questions. Some of managers refused to cooperate on that ground.

#### **4.5.4. DIFFICULTIES :**

Two major difficulties were experienced namely ; the diversity of banks' locations and the timing of data collection.

**Diversity** : the first difficulty concerns the diversity of banks' geographical location. It is not easy to separate a bank from its surroundings such as country, culture, language, accent, religion, customs, traditions, current political affairs. All of these surroundings had to be thought of and considered every time a contact or a fellow up was made before a questionnaire could be filled in.

**Gulf crisis** : the second difficulty which was experienced in collecting the required data was unexpected. It was that the collection of data was associated with the second Gulf crisis which started on second of August, 1990. Put it in a simple way " people who were asked to complete questionnaires were worried sick about their lives " !

These difficulties and other related obstacles in collecting data are reflected in the lengthy period required to collect the 109 usable questionnaires. The period was almost two years from December 1990 to August 1992.

#### **4.6. SAMPLE CHARACTERISTICS :**

The aim of this section is to shed a light on the characteristics of the data samples on which the analysis will be conducted. Different aspects of the samples are considered as follows : 1) bank headquarters' regions; 2) type of banks and; 3) data.

**4.6.1. BANK HEADQUARTERS' REGIONS :**

Frequency table 4-9 shows where the banks' headquarters were located

	IBs		TBs		ALL BANKS	
	Frq.	%	Frq.	%	Frq.	%
Jordan	1	2.9	19	25.3	20	18.3
The Gulf states	10	29.4	33	44	43	39.4
Rest of Arabic states	4	11.8	23	30.7	27	24.8
Sudan	5	14.7	0	0	5	4.6
Iran	5	14.7	0	0	5	4.6
Pakistan	6	17.6	0	0	6	5.5
The rest of IB	3	8.8	0	0	3	2.8
<b>Total</b>	<b>34</b>	<b>100</b>	<b>75</b>	<b>100</b>	<b>109</b>	<b>100</b>

Three countries (Sudan, Iran and Pakistan) are especially important in the Islamic banking sample and represented in the table. These countries are undertaking Islamisation processes in their economies. For more detail see chapter one, section one and chapter three, section two.

**4.6.2. BANKS' TYPE :**

Frequency table 4-10 shows banks by their type, in other words, whether a bank is a commercial, industrial, housing or other :

Bank	V016	
	Frq.	%
Commercial	53	48.6
Industrial	4	3.7
Housing	5	4.6
Investment	6	5.5
Development	2	1.8
Agriculture	2	1.8
Comm. & Invest.	3	2.8
Islamic	34	31.2
<b>Total</b>	<b>109</b>	<b>100</b>

It is evident from the table that the majority (71%) of traditional banks are commercial and constitute almost half (48.6%) of the total sample while Islamic banks constitute almost third (31.2%) of the total sample.

4.6.3. DATA :

Frequency table 4-11 shows the type of banks involved in the study :

Table 4-11						
Banks' type						
	IBs		TBs		ALL BANKS	
	Frq.	%	Frq.	%	Frq.	%
Normal Bank	33	97.1	68	90.7	101	92.7
Islamic branches	1	2.9	0	0	1	.9
Foreign branches	0	0	4	5.3	4	3.7
Arabic branches	0	0	3	4	3	2.8
Total	34	100	75	100	109	100

Table 4-11 shows that respondents were not always normal banks; 2.9%, in other words, one case of Islamic banks, was an Islamic branch of a traditional bank. Also, 9.3%, in other words, seven cases, of traditional banks were branches of other banks. But the vast majority, in other words, 97.1% of Islamic banks, and 90.7% of traditional banks are normal banks.

## CHAPTER FIVE

### STATISTICAL METHODOLOGY

The aim of this chapter is to discuss the statistical methodology. This chapter comprises two sections : 1) introduction and; 2) tests of data quality.

#### 5.1. GENERAL INTRODUCTION :

The aim of this section is to shed light on the suitability of the data for statistical analysis and to discuss the statistical techniques which are used in analysing the data. The techniques' aims, the requirements for applications and how to explain the results will be briefly discussed. It is discussed as follows : 1) data suitability; 2) purposes of statistics; 3) statistical techniques; 4) statistical analysis approach and; 5) SPSS.

##### 5.1.1. DATA SUITABILITY :

One question raised whenever statistics is used to analyse a set of data is :

Is the data suitable to conduct statistical analysis on it?

One could argue that the data collected for this research project is suitable for many reasons :

- a. It is quantitative
- b. It is measured on ordinal, categorical and ratio scales.
- c. There is a reasonable number of cases to perform any test or to apply any statistical techniques.
- d. The survey was directed to the whole population. Assuming that the response is random the sample is therefore representative.

##### 5.1.2. PURPOSES OF STATISTICS USED :

Statistical techniques were used in this project to fulfil two purposes. The first is to verify the sample from a statistical standpoint. In other words to test for :

- a. The non bias of the data collected.

- b. The validity of the data collected

The second purpose is to get a better understanding of the subject by statistically analysing the data collected.

### **5.1.3. STATISTICAL TECHNIQUES :**

To fulfil the above two purposes, two statistical techniques were used. They are as follows :

- a. T - test, used to test the non bias of the data (discussed in the next section).
- b. The independence loglinear models, used to analyse the data in chapters six to eleven. For a discussion of the loglinear model technique, see appendix two.

### **5.1.4. STATISTICAL ANALYSIS APPROACH :**

#### **5.1.4.1. BASIC ANALYSES :**

The independence loglinear models are used in the body of the analysis. The analysis using loglinear models is conducted as follows :

- a. All banks together, in this case, the aim is to test the independence model that type of bank (Islamic banks/traditional banks) does (not) influence its age, size, growth, ownership and long term finance performance.
- b. Islamic banks alone, in this case, the aim is to test the independence model that location of an Islamic bank (Islamic banks-1/Islamic banks-2) does (not) influence its age, size, growth, ownership and long term finance performance.
- c. Traditional banks alone, in this case, the aim is to test the independence model that type of a traditional bank (traditional banks-1/traditional banks-2) does (not) influence its age, size, growth, ownership and long term finance performance.

#### **5.1.4.2. ADDITIONAL ANALYSIS :**

Further analysis, was conducted to test other models. This was achieved by modelling age and size with factors related to banks'/Islamic banks'/traditional banks' long term finance

performance, for example, contribution to individual long term finance programmes and success of long term finance programmes. The aim is to examine whether age and size do (not) influence long term finance performance.

#### **5.1.4.3. MODEL TABLE :**

The loglinear model tables are presented only if there were statistically significant associations between the model variables at the 5% level. Otherwise, a brief discussion of the findings will be presented. For a discussion of the loglinear model technique, see appendix two.

#### **5.1.5. SPSS :**

Throughout the analysis of the research investigation data, SPSS was used. Both mainframe and PC (SPSS-X) versions were used. In addition to the software facilities of SPSS, various related references were also utilised (Norusis 1983[130], 1985[131], 1987[132], 1988[133] and SPSS 1988[172] and 1986[171]).

Three SPSSX data files were constructed : one for all banks; the second for Islamic banks and; the last for traditional banks.

Another four files were constructed for the purpose of the non bias test. The first two were for Islamic banks contained 17 cases each. The second two were for traditional banks and contained 20 cases each (see next section for more detail of the non bias test).

### **5.2. TESTS OF DATA QUALITY :**

The aim of this section is to provide logical and statistical evidence on the quality of the data collected on which all later statistical analysis will be done as follows : 1) validity tests and; 2) non bias test.

#### **5.2.1. THE VALIDITY TESTS :**

The aim of these tests is to ensure that nothing but the required data have been obtained in the answered questionnaires, in other words, that there were no wrong answers. This test is carried out using two different approaches. They are as follows; first arrival check and internal designed



check.

#### **5.2.1.a THE FIRST ARRIVAL CHECK :**

It was considered at the design stage of the questionnaire that by reading through the answers, one should easily be able to draw a clear picture on the bank and its long term finance programmes. So, it would be easy to check whether the respondent was sincere in completing the questionnaire. As a first step check procedure, on receiving a completed questionnaire, the researcher read through it to check for the completeness and logic of the answers. Five questionnaires were excluded from the analysis as a result of this check. Three of them were Islamic banking questionnaires because they did not answer any of the Islamic finance policies questions. The other two were not completed in full because the two banks did not have long term finance.

Also, whenever it was possible, answers were checked against published data.

Another check, was that it happened that in four banks two different people answered the questionnaire : in three banks, supposedly, the respondents did not know about each other. In the case of the fourth, the questionnaire was intentionally given to three people in the same bank to ensure that at least one of them answered it. Two of them however did. In all four cases the two answers were compared against each other to check the correctness of the answers. To the researcher, the answers appeared competent, in other words, they agreed with each other.

#### **5.2.1.b. THE INTERNAL CONSISTENCY CHECKS :**

The Islamic banking questionnaire includes four Islamic finance policies namely; musharaka, mudaraba, murabaha and muzaraha, that is 4M. Not answering one of the 4M in the first question which asks about the ratio of long term finance of each one of them to total long term finance means that a bank does not employ the policy in its long term finance programmes.

The questionnaires were checked. It was found that Islamic banks were consistent, in other words, if a bank did not answer the question which specifies the ratio of long term finance meant that it did not employ the policy for long term finance programmes, it should not answer the rest of questions concerns the policy.

### MUDARABA IN THE ISLAMIC BANKING QUESTIONNAIRE :

The Islamic banking questionnaire asks about the maximum percentage that a bank could contribute to the finance of a project using the mudaraba finance policy.

This question was especially designed to detect whether a respondent was paying attention in answering the questions. As explained earlier (in chapter two, section three), this finance policy, in other words, mudaraba in its simple form has 100% finance in the project. The answers were expected to have a 100% finance contribution for all banks.

Surprisingly, the answers were not as expected. As many as 60% of the answers were rejected according to the criterion set up. The choice was either to scrap the rejected answers, to accept them as they were but with a big question mark, or to investigate the reasons behind the answers. That led to personal enquiry about this finance policy with Islamic bank managers. It was discovered that they have different forms of mudaraba and recent applications allow banks to partially finance mudaraba projects. Thus, all answers were accepted and no questionnaire was rejected according to this criterion. For more details on mudaraba Islamic finance policies, see chapter two, section three.

No questionnaire was rejected as a result of any of these consistency checks.

**5.2.2. NON BIAS TEST :**

Frequency table 5-1 shows the dates of receipt of the completed questionnaires.

Table 5-1						
Answers dates						
Month	IBs		TBs		ALL BANKS	
	Frq.	%	Frq.	%	Frq.	%
January 91	1	2.9	0	0	1	.9
February	1	2.9	13	17.3	14	12.8
March	2	5.9	5	6.7	7	6.4
April	2	5.9	5	6.7	7	6.4
May	2	5.9	4	5.3	6	5.5
June	2	5.9	0	0	2	1.8
July	0	0.0	5	6.7	5	4.6
August	10	29.4	15	20	25	22.9
September	0	0.0	4	5.3	4	3.7
October	1	2.9	4	5.3	5	4.6
November	2	5.9	8	10.7	10	9.2
December	5	14.7	3	4	8	7.3
Jan-Apr 92	1	2.9	0	0	1	.9
May-Jul 92	5	14.7	9	12	14	12.8
	Total	34	100	75	100	109

From this table, it is evidence that it took almost two years to collect the required primary data. For further discussion on why it took this long, see chapter four, section four and five. This span of time gives rise to a rather serious question, from a statistical methodology point of view, which is :

is there any bias in the answers? in other words are the answers received at the beginning different to the answers received at the end? that is to say, do we accept the null hypothesis or reject it?

To make sure that the answers were homogeneous a T test was conducted on two groups of each questionnaire, that is Islamic banks and traditional banks. They were as follows :

**5.2.2.a. ISLAMIC BANKS :**

The first test was conducted on the Islamic banking questionnaire. The aim of this test was to make sure that there was no statistically significant difference between the Islamic banks' answers received at the beginning of the data collection phase (Islamic banks-a) and Islamic banks'

answers received at the end of the data collection phase (Islamic banks-b). The null hypothesis therefore is that there is no significant statistical difference between Islamic banks-a and Islamic banks-b in each answer.

The total number of the Islamic banks' questionnaires = 34. Because it was not high, it was decided to include 50%, that is 17 Islamic banks, of the questionnaires in each group.

The results of the T test suggested that all Islamic banks' research data are free of bias at the 1% significance level, that is the null hypothesis is accepted at the 1% level that there are no statistically differences between answers received early and answers received at the end of data collection except in two variables namely : ownership and whether an Islamic bank was originally established or converted to operate on an Islamic basis.

The first group, that is Islamic banks-a have more private, and Islamic banks which originally established as Islamic banks than the second group, that is Islamic banks-b. That is perhaps because the first group did not include many Islamic banks from Pakistan, Iran and Sudan, in other words, Islamic banks-2. As discussed in chapter six, section five that Islamic banks-2 have a higher proportion of public owned Islamic banks. Also, most banks which converted to operate on an Islamic basis are located in Islamic banks-2 as discussed in chapter six, section one. However, for the purposes of this research investigation, these findings are not important.

#### **5.2.2.b. TRADITIONAL BANKS :**

The aim of this test is to make sure that there was no statistically significance difference between the traditional banks' answers received at the beginning of the data collection phase (traditional banks-a) and traditional banks' answers received at the end of the data collection phase (traditional banks-b). The null hypothesis therefore, is that there is no significant statistical difference between traditional banks-a and traditional banks-b in each answer.

The first group included the first twenty cases (traditional banks-a). The second group included the last twenty cases (traditional banks-b).

The results of the T test suggested that all traditional banks' research data are free of bias at the

1% significance level, in other words, the null hypothesis is accepted, that there is no statistically differences between answers received early and answers received at the end of data collection except in one variable namely capital.

It seems that the second group, in other words, traditional banks-b of traditional banks have a larger size of capital. That perhaps because most of the second group's traditional banks are from the Gulf. Their participation was delayed as a result of the Gulf war, so it was received at the end of collection the data while the first group did not include many banks from the Gulf. However, for the purposes of this research investigation, this finding is not important.

## CHAPTER SIX

### DESCRIPTION OF BANKS

The aim of this chapter is to introduce the Islamic banking and traditional banking systems by describing them in terms of age, size, growth and ownership. Size is measured in two ways : a) total assets and; b) capital in 1991.

This serves also as an introduction to the analysis of long term finance programmes in the two banking systems which will follow this chapter.

Answers to the following questions will be provided :

- a. Which banks/Islamic banks/traditional banks are older?
- b. Which banks/Islamic banks/traditional banks had the larger size of assets in 1991?
- c. Which banks/Islamic banks/traditional banks had the larger size of capital in 1991?
- d. Which banks/Islamic banks/traditional banks achieved greater growth in total assets over the five years from 1986 to 1991?
- e. Who own the surveyed banks/Islamic banks/traditional banks (private/public)?

#### **HYPOTHESES :**

H1 Age : Islamic banks are much younger than traditional banks.

H2a Islamic banks are much smaller in terms of the size of total assets than traditional banks.

H2b Islamic banks are much smaller in terms of size of capital than traditional banks.

H2c Islamic banks grew at a faster rate in the period between 1986-1991 than traditional banks.

H3 Islamic banks-1 are expected to be larger in terms of size than Islamic banks-2.

H4 It is expected that traditional banks-1 are larger in terms of size than traditional banks-2.

These are general and broad hypotheses. However, at every step of the analysis, the relevant hypothesis is presented and discussed to determine the right statistical hypotheses which suit the question being analysed.

The chapter comprises six sections : 1) the banks' age; 2) the banks' assets; 3) banks' capital in 1991; 4) total asset annual growth; 5) the ownership and; 6) discussion of the findings.

### **6.1. BANKS' AGE :**

The aim of this section is to examine the banks'/Islamic banks'/traditional banks' age. The aim is to see whether there is any difference in the age of groups and subgroups of banks/Islamic banks/traditional banks. The examination is performed on the basis of the following hypotheses :

- a. Islamic banks are younger than traditional banks.
- b. There is no difference between the Islamic banks-1s' age and Islamic banks-2s'.
- c. Some Islamic banks which were converted are established before 1970's and they are Islamic banks-2.
- d. Traditional banks-1 are older than traditional banks-2.

Examination of these hypotheses is important especially at the start of the analysis stage because the age variable will be used in the analysis of variables related to long term finance programmes.

#### **6.1.1. BANKS' AGE :**

The aim of this section is to examine the banks' age in relation to their type (Islamic banks/traditional banks).

It is expected that a bank's age (whether young or old) is influenced by its type. The hypothesis is therefore that Islamic banks are younger than traditional banks (as explained in chapter three, section two).

Table number 6-1 represents a two variable loglinear model : a) the type of bank with two categories (Islamic banks/traditional banks) and; b) the banks' age with four categories. The table also shows the banks (Islamic bank/traditional bank) classified by their observed number and expected number in each age category. 97 cases were used in the analysis. The other 12 cases were missing data.

Table 6-1			
Banks Classified by Their Type and Ages			
Age	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
<b>IBs</b>			
00-10 yrs	14.00 (14.43)	8.06 ( 8.31)	2.9711
11-20 yrs	14.00 (14.43)	12.97 (13.37)	.4516
21-30 yrs	1.00 ( 1.03)	4.56 ( 4.70)	-2.2217
31- up yrs	5.00 ( 5.15)	8.41 ( 8.67)	-1.6828
<b>TBs</b>			
00-10 yrs	9.00 ( 9.28)	14.94 (15.40)	-2.9711
11-20 yrs	23.00 (23.71)	24.03 (24.77)	-.4516
21-30 yrs	12.00 (12.37)	8.44 ( 8.70)	2.2217
31- up yrs	19.00 (19.59)	15.59 (16.07)	1.6828
Goodness-of-fit test statistics			
Likelihood Ratio Chi Square = 14.18133 DF = 3 P = .003			

There is statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very low = 0.003 hence the independence model that age is not influenced by type (Islamic banks/traditional banks) of a bank is rejected. In other words, the analysis of this model suggests that a bank's type significantly influences its age and that a bank's age very much depends on whether it is an Islamic bank or traditional bank. Hence, the research hypothesis is accepted.

Also, the foregoing analysis is supported in the analysis of the discrepancies of the model table 6-1 where the observed number of Islamic banks in the first category (catg) is much higher than expected. This category also has a high positive adj resid = 2.9711 suggesting that there is an important discrepancy between the expected number and actual number in the category. That is contrary to the first category of traditional banks where the observed number is much less than expected with a low negative adj resid = -2.9711 suggesting that there is an important discrepancy between the expected number and actual number in the category. The analysis of the first category of both type of banks shows that higher numbers than expected of Islamic banks are of the age less than 11 years whereas the contrary is true for traditional banks. In other words, the 1980's witnessed the establishment of Islamic banks at a rate greater than that of the traditional banks'.

In the last two categories, the observed numbers of Islamic banks are less than expected while the



observed numbers of traditional banks are higher than expected suggesting that fewer than expected of the Islamic banks are older than 20 years whereas the contrary is true for traditional banks. In particular, the third category of Islamic banks has a very low negative adj resid = -2.2217 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In other words, there is a severe lack of Islamic banks aged between 21-30 years. Contrary to that is the third category of traditional banks which has high positive adj resid = 2.2217 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In other words, there is higher than expected number of traditional banks aged between 21-30 years.

This analysis leads to the conclusion that Islamic banks are generally younger than traditional banks. These results were expected because the Islamic banking industry started in the 1970's.

#### **6.1.2. ISLAMIC BANKS' AGE :**

The aim of this section is to *examine the Islamic banks' age in relation to their location* (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its age.

It is expected that an Islamic bank's age is not influenced by its location. The hypothesis therefore is that Islamic banks-1 and Islamic banks-2 do not differ in terms of age (as explained in chapter three, section two).

Table 6-2 represents a two variable loglinear model : a) location of banks with two categories (Islamic banks-1/Islamic banks-2) and; b) the age variable with four categories. This table also shows Islamic banks (Islamic banks-1/Islamic banks-2) classified by their observed number and expected number in each age category. 34 cases were used in the analysis.

Table 6-2			
IBs Classified by Their Locations and Ages			
Age	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
<b>IBs-1</b>			
00-10 yrs	8.00 (23.53)	7.41 (21.80)	.4107
11-20 yrs	10.00 (29.41)	7.41 (21.80)	1.8070
21-30 yrs	.00 ( .00)	.53 ( 1.56)	-1.0766
31- up yrs	.00 ( .00)	2.65 ( 7.79)	-2.5680
<b>IBs-2</b>			
00-10 yrs	6.00 (17.65)	6.59 (19.38)	-.4107
11-20 yrs	4.00 (11.76)	6.59 (19.38)	-1.8070
21-30 yrs	1.00 ( 2.94)	.47 ( 1.38)	1.0766
31- up yrs	5.00 (14.71)	2.35 ( 6.92)	2.5680
Goodness-of-fit test statistics			
Likelihood Ratio Chi Square = 11.14332 DF = 3 P= .011			

There is statistical evidence at the 5% level to reject the hypothesis since the observed significance level = .011 associated with Ch Sq is low hence the independence model that age is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is rejected. In other words, the analysis of this model suggests that the location of Islamic banks significantly influences their age and that an Islamic bank's age depends very much on where it is located. Hence, the research hypothesis is rejected.

Also, the foregoing analysis is supported by the analysis of the discrepancies of the model table 6-2 where the observed numbers of the last category of Islamic banks-1 are far less than expected with a low negative adj resid = -2.5680 suggesting that there is an important discrepancy between the observed and expected numbers in the category. In other words, there is a sever lack of Islamic banks-1 aged more than 30 years. Contrary to this is the high positive adj resid= 2.5680 of Islamic banks-2 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In other words, there is higher than expected number of Islamic banks-2 aged more than 30 years.

In fact the last two categories suggest that there are no observed Islamic banks-1 aged older than 21 years. While more than expected of the Islamic banks-2 were established before 1972.

This analysis leads to the conclusion that Islamic banks-1 are generally younger than Islamic banks-2.

The analysis of Islamic banks' age raises an important question as to why some Islamic banks are aged more than 20 years contrary to what is known in the literature of Islamic banking (as discussed in chapter one, section one). This question is answered in the following section of the current chapter.

### **6.1.3. ISLAMIC BANKSI-2's AGE :**

#### **6.1.3.a. INTRODUCTION :**

The aim of this section is to examine why some Islamic banks are aged more than 20 years while it is well known in the Islamic banking's literature that the Islamic banking industry started in 1970's (as discussed and explained in chapter one, section one).

NB Islamic banks-1 may include banks originally established as traditional banks and if there was any conversion of any of them, it was voluntary and not a compulsory one. That is contrary to Islamic banks-2 where banks had to change their business to operate on an Islamic basis.

#### **6.1.3.b. ANALYSIS :**

The aim of this section is to examine Islamic banks' age in relation to their location (Islamic banks-1/Islamic banks-2) and whether a bank was originally established as an Islamic bank.

It is expected that an Islamic bank's age is not independent of its location and from whether it was originally established as an Islamic bank or traditional bank. The hypothesis is therefore that Islamic banks-1 are younger than Islamic banks-2 because Islamic banks-1 do not have as many converted banks as Islamic banks-2 (as explained in chapter three, section two).

Table number 6-3 represents a three variable loglinear model. They are as follows :

Factor Level Label

V016D 2 location of Islamic banks (Islamic banks-1/Islamic banks-2)

V008I 2 Islamic originally/converted

V007 4 age in years (yrs)

This table shows the Islamic banks location (Islamic banks-1/Islamic banks-2) and whether they were converted or originally established as Islamic banks classifies by their observed number and expected number in each age category. 34 cases were used in the analysis.

Code	age	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
V016D	IBs-1			
V008I	converted			
V007	00-10 yrs	1.00 ( 2.94)	2.40 ( 7.05)	-1.1478
V007	11-20 yrs	.00 ( .00)	2.40 ( 7.05)	-1.9689
V007	21-30 yrs	.00 ( .00)	.17 ( .50)	-.4588
V007	31-up yrs	.00 ( .00)	.86 ( 2.52)	-1.0660
V008I	original			
V007	00-10 yrs	7.00 (20.59)	5.01 (14.75)	1.3368
V007	11-20 yrs	10.00 (29.41)	5.01 (14.75)	3.3560
V007	21-30 yrs	.00 ( .00)	.36 ( 1.05)	-.7555
V007	31-up yrs	.00 ( .00)	1.79 ( 5.27)	-1.7726
V016D	IBs-2			
V008I	converted			
V007	00-10 yrs	3.00 ( 8.82)	2.13 ( 6.27)	.7401
V007	11-20 yrs	1.00 ( 2.94)	2.13 ( 6.27)	-.9641
V007	21-30 yrs	1.00 ( 2.94)	.15 ( .45)	2.3800
V007	31-up yrs	5.00 (14.71)	.76 ( 2.24)	5.5159
V008I	original			
V007	00-10 yrs	3.00 ( 8.82)	4.46 (13.11)	-1.0049
V007	11-20 yrs	3.00 ( 8.82)	4.46 (13.11)	-1.0049
V007	21-30 yrs	.00 ( .00)	.32 ( .94)	-.6910
V007	31-up yrs	.00 ( .00)	1.59 ( 4.68)	-1.6199
Goodness-of-fit test statistics				
Likelihood Ratio Chi sq = 35.10463 DF = 10 P = .000				

There is enough statistical evidence at the 5% level to support the hypothesis since the observed significance levels below 0.001 associated with Ch Sq is very small hence the independence model that age is not influenced by whether an Islamic bank was originally established as an Islamic bank and location (Islamic banks-1/Islamic banks-2) of a bank is rejected. In other words, the analysis of this model suggests that the location of Islamic banks significantly influences their age and whether they were originally established as Islamic banks and that a bank's age and whether it was originally established as an Islamic bank very much depend on where it is located. Hence, the research hypothesis is accepted.

This analysis leads to the conclusion that Islamic banks which were converted to operate on an

Islamic basis were established before the existence of the Islamic banking industry in 1970's.

Also, the foregoing analysis of Islamic banks' age is supported in the analysis of the discrepancies of the model table 6-3 as follows :

**6.1.3.b.i. ISLAMIC BANKS-1 :**

Table 6-3 reveals that Islamic banks-1 which were originally established as Islamic banks aged between 10-21 years are more numerous than expected with a high positive adj resid = 3.3560 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In fact, double what was expected of Islamic banks were established as Islamic banks aged between 10 and 20 years, in other words, were established in the 1970's.

**6.1.3.b.ii. ISLAMIC BANKS :**

Table 6-3 reveals that the observed numbers aged more than 20 years of Islamic banks-2, that is the third and fourth categories, which were converted to operate on an Islamic basis are much more than expected with a high positive adj resid in both categories = 3.3800 and 5.5159 suggesting that there are important discrepancies between the observed and expected numbers in the category. In other words, there is higher than expected number of Islamic banks-2 which are more than 20 years old. That is perhaps because by law Islamic banks-2 had to convert their business to operate on an Islamic basis.

**6.1.3.b.iii. GENERAL OBSERVATIONS :**

Table 6-3 shows that in Islamic banks-1 there was only one bank converted to operate on an Islamic basis and it is aged less than 11 years.

The table also shows that there is no Islamic banks-2 aged more than 21 years which was originally established as an Islamic bank.

The analysis of Islamic banks' age suggests that a distinction should be made between the age of a bank and date of starting operations on an Islamic basis if the establishment of Islamic banks was examined.

Also, it suggests that the conversion of banks to operate on an Islamic basis mainly took place in Islamic banks-2.

#### 6.1.4. TRADITIONAL BANKS' AGE :

The aim of this section is to examine traditional banks' age in relation to their type (traditional banks-1/traditional banks-2).

It is expected that a traditional bank's type influences its age. Therefore, the hypothesis is that traditional banks-1 are older than traditional banks-2 (as explained in chapter three, section two).

Table 6-4 represents a two variable loglinear model : a) bank type with two categories and; b) age with four categories. This table also shows traditional banks (traditional banks-1/traditional banks-2) classified by their observed number and expected number in each age category. 63 cases were used in the analysis. The other 22 cases were missing data.

Code	age	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
V016E	TBs-1			
V007	00-10 yrs	3.00 ( 4.76)	6.29 ( 9.98)	-2.5776
V007	11-20 yrs	17.00 (26.98)	16.06 (25.50)	.5340
V007	21-30 yrs	7.00 (11.11)	8.38 (13.30)	-.9654
V007	31-up yrs	17.00 (26.98)	13.27 (21.06)	2.2312
V016E	TBs-2			
V007	00-10 yrs	6.00 ( 9.52)	2.71 ( 4.31)	2.5776
V007	11-20 yrs	6.00 ( 9.52)	6.94 (11.01)	-.5340
V007	21-30 yrs	5.00 ( 7.94)	3.62 ( 5.74)	.9654
V007	31-up yrs	2.00 ( 3.17)	5.73 ( 9.10)	-2.2312
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square = 10.19051 DF = 3 P = .017				

There is statistical evidence at the 5% level to support the hypothesis since the observed significance level around 0.02 associated with Ch Sq is low hence the independence model that age is not influenced by the type (traditional banks-1/traditional banks-2) of a bank is rejected. In other words, the analysis of this model suggests that traditional banks' type significantly influences their age and that a bank's age very much depends on whether it is a traditional banks-1 or traditional banks-2. Hence, the research hypothesis is accepted.

Also, the foregoing analysis is supported in the analysis of the discrepancies of the model table 6-4 where the observed number of traditional banks-1 in the first category is less than expected with a low negative adj resid = -2.5776 suggesting that there is an important discrepancy between the observed and expected numbers in the category. This analysis suggests that less than expected of traditional banks-1 were established in the last ten years. That is contrary to the first category of traditional banks-2 where the observed number is much higher than expected. The category has a high positive adj resid = 2.5776 suggesting that there is an important discrepancy between the observed and expected numbers of the category. The analysis of this category suggests that much more than expected of traditional banks-2 were established during the last ten years.

The observed number of traditional banks-1 in the 4th category is higher than expected with a high positive adj resid = 2.2312 suggesting that there is an important discrepancy between the observed and expected numbers of the category contrary to the fourth category of traditional banks-2 where the observed number is less than expected with a low negative adj resid = -2.2312 suggesting that there is an important discrepancy between the observed and expected numbers of the category. The analysis of the 4th categories of both types of bank suggests that traditional banks-1 were well established before the traditional banks-2 come in to existence.

**6.1.5. SUMMARY OF THE RESULTS :**

Several hypotheses were tested in this section. The results are presented in table no 6-5.

Table 6-5		
Summary of results of section 6-1		
Model	Hypothesis	Results
Banks' type and age	Banks' type influences their age	Accepted
IBs' location and age	Loctn does not influence IBs' age	Rejected
IBs' location original age	Location, original influence age	Accepted
TBs' type and age	TBs' type influences age	Accepted

#### **6.1.6. REMARK :**

The analysis of banks'/Islamic banks'/traditional banks' age suggests generally that :

- a. The Islamic banks were established in the 1970's despite the age of some Islamic banks-2 which exceeds 30 years : this was explained by the fact that these banks were converted to operate on an Islamic basis as a result of the political will in their countries. The factors which lead to their establishment were discussed earlier (chapter one, section one).
- b. A high proportion of traditional banks-1 are older than 31 years.
- c. While the last two decades has witnessed the establishment of the Islamic banking industry it also witnessed the development of traditional banks-2. This could be due to two main reasons: a) many countries developed the political will to establish the economic development base, therefore they established more of traditional banks-2 and; some of the oil money channelled into banking industry.

Interestingly, 38.14% of all surveyed banks are aged between 11-20 years (table 6-1), in other words, they were established in the 1970's.

#### **6.2. SIZE OF TOTAL ASSETS IN THE BANKING INDUSTRY :**

The aim of this section is to examine the banks' total asset size classified as small, medium or large. This classification is based on a bank's total assets compared with the other banks in the bank's country. So this variable is about banks' perceptions of their importance in their local country rather than in any absolute international sense.

The analysis is performed on the basis of the following hypotheses :

- a. Islamic banks tend to have a smaller size of assets relative to other banks in their country.
- b. Islamic banks-1 tend to have a larger size of assets relative to other banks in their country.
- c. traditional banks-1 tend to have a larger size of assets relative to other banks in their country.



**6.2.1. BANKS' TOTAL ASSETS :**

The aim of this section is to present the results of examining the banks' total assets in relation to their type (Islamic banks/traditional banks).

It is expected that a bank's total assets are influenced by its type. The hypothesis is, therefore, that Islamic banks are smaller than traditional banks in terms of total assets (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .15264    DF = 2    P = .927

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level = 0.927 associated with Ch Sq is very high hence the independence model that banks' total assets size is not influenced by the type (Islamic banks/traditional banks) of a bank is accepted. In other words the analysis of this model suggests that a bank's type (Islamic banks/traditional banks) does not appear to influence its total asset size. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that Islamic banks and traditional banks are similar in terms of total asset size.

**6.2.2. ISLAMIC BANKS' TOTAL ASSETS :**

The aim of this section is to present the results of examining the relationship between the Islamic banks' size of total assets and their location (Islamic banks-1/Islamic banks-2).

It is expected that Islamic banks-1 will tend to have a larger size of total assets. The hypothesis therefore is that the Islamic banks-1s' size of total assets is larger than Islamic banks-2s' (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .48349    DF = 2    P = .785

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is high = 0.785 hence the independence model that size of total assets is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location of

an Islamic bank does not appear to influence the size of its total assets. Therefore, that Islamic banks-1 are larger in terms of total assets size. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of total asset size.

### 6.2.3. TRADITIONAL BANKS' TOTAL ASSETS :

The aim of this section is to present the results of examining the relationship between the traditional banks' size of total assets and their type (traditional banks-1/traditional banks-2).

It is expected that a traditional bank's total assets is influenced by its type. The hypothesis is therefore that the traditional banks-1s' total assets are larger than the traditional banks-2s' (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.21376    DF = 2    P = .076

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is fairly small = 0.076 but not below 0.05 hence the independence model that the total assets size is not influenced by the type (traditional banks-1/traditional banks-2) of a bank is accepted. In other words, the analysis of this model suggests that the type of a traditional bank does not appear to influence its size of total assets. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of total asset size.

### 6.2.4. SUMMARY OF THE RESULTS :

Several hypotheses were tested in this section. The results are presented in table no 6-6.

Table 6-6		
Summary of results of section 6-2		
Model	Hypotheses	Results
Banks' type and total assets	Type influences total asset	Rejected
IBs' location and total assets	Location influences total assets	Rejected
TBs' type and total assets	TBs' type influences total asset	Rejected

### **6.2.5. REMARK :**

The analysis of the banks'/Islamic banks'/traditional banks' size of total assets suggests that there is no fundamental difference between groups and subgroups of banks in terms of size of each bank's/Islamic bank's/traditional bank's total assets relative to other banks in the country. It was thought that Islamic banks would have a smaller size of assets but unexpectedly that was not the case.

This conclusion leads us to discuss why these results occurred? In other words, how could Islamic banks have the same size of assets as the much older and well established traditional banks? The reason for this could be explained by a comment made by an Islamic bank manager, he said :

"The Islamic banking establishment was associated with a flood of inflow funds" Alhelo, (1986, page 10[24]).

Also, the results of examining the annual growth of total assets (presented in section four of the current chapter), lead to the conclusion that the total assets of Islamic banks grew at a faster rate than traditional banks between 1986 and 1991.

### **6.3. SIZE OF CAPITAL IN 1991 IN THE BANKING INDUSTRY :**

This section will focus on the analysis of the banks' capital in 1991. Capital here is viewed as how much a bank owes its owners. In other words, the shareholders' equity. It is measured in millions (m) of US Dollars (\$). Answers to the following questions will be provided :

Which type of banks had the larger capital in 1991?

Which type of traditional banks had the larger capital in 1991?

Which Islamic banks (Islamic banks-1/Islamic banks-2) had the larger capital in 1991?

The analysis is performed on the basis of the following hypotheses :

- a. Islamic banks had a smaller size of capital in 1991.
- b. Islamic banks-1 had a larger size of capital in 1991.

c. Traditional banks-1 had a larger size of capital in 1991.

### 6.3.1. BANKS' CAPITAL IN 1991 :

The aim of this section is to present the results of examining the relationship between the banks' capital in 1991 and their type (Islamic banks/traditional banks).

It is expected that a bank's capital in 1991 is influenced by its type. The hypothesis is therefore that Islamic banks capital in 1991 was smaller than traditional banks' (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .46554    DF = 2    P = .792

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very high around 0.79 hence the independence model that capital in 1991 is not influenced by their type is accepted. In other words, the analysis of this model strongly suggests that banks' type did not influence the size of banks' capital and that a bank's capital in 1991 was independent of its type. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that Islamic banks and traditional banks are similar in terms of capital in 1991.

### 6.3.2. ISLAMIC BANKS' CAPITAL IN 1991 :

The aim of this section is to present the results of examining the relationship between Islamic banks' capital in 1991 and their location (Islamic banks-1/Islamic banks-2).

It is expected that an Islamic bank's capital in 1991 was influenced by its location. The hypothesis is therefore that Islamic banks-1's capital in 1991 is larger than Islamic banks-2's as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .09140    DF=2    P = .955

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very large = 0.995 hence the independence

model that Islamic banks' capital in 1991 is not influenced by their location is accepted. In other words, the analysis of this model strongly suggests that Islamic banks' location did not influence their size of capital and that an Islamic bank's capital in 1991 was independent of its location. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of capital in 1991.

### 6.3.3. TRADITIONAL BANKS' CAPITAL in 1991 :

The aim of this section is to present the results of examining the relationship between traditional banks' capital in 1991 and their type (traditional banks-1/traditional banks-2).

It is expected that a traditional bank's capital in 1991 was very much influenced by its type. The hypothesis is therefore that traditional banks-2's capital in 1991 was smaller than traditional banks-1's (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.27105    DF = 2    P = .118

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is fairly large around 0.12 hence the independence model that the traditional banks' capital in 1991 is not influenced by their type is accepted. In other words, the analysis of this model suggests that traditional banks' type appears not to influence the size of their capital in 1991. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of capital in 1991.



### 6.3.4. SUMMARY OF THE RESULTS :

Several hypotheses were tested in this section. The results are presented in table no 6-7.

Table 6-7		
Summary of results of section 6-3		
Model	Hypotheses	Results
Banks' type and capital	Banks' type influences their capital	Rejected
IBs' location and capital	Location influences their capital	Rejected
TBs' type and capital	TBs' type influences their capital	Rejected

### 6.3.5. REMARK :

The results of analysing 1991's capital suggest that neither the type (Islamic banks/traditional banks or traditional banks-1/traditional banks-2) nor the location (Islamic banks-1/Islamic banks-2) appeared to influence the relative size and the banks' capital in 1991.

It was thought that younger banks and banks located in poorer areas would have a smaller size of capital but that was not the case. It is, perhaps, the fact that funds are transferred from richer countries to poorer countries which made that possible.

The analysis of banks' capital in 1991 suggests that particular types of banks cannot be characterised as having a small, medium or large size of capital.

### 6.4. ANNUAL GROWTH OF TOTAL ASSET IN THE BANKING INDUSTRY :

This variable is the rate of annual growth of total assets over the five years 1986-1991 in the banking industry. Therefore, the aim of this section is to examine the banks' annual growth.

The analysis is performed on the basis of the following hypotheses :

- a. Islamic banks grew at a faster rate than traditional banks.
- b. Islamic banks-1 grew at a faster rate than Islamic banks-2.
- c. Traditional banks-1 grew at a slower rate than traditional banks-2.

#### 6.4.1. BANKS' ANNUAL GROWTH IN TOTAL ASSETS :

The aim of this section is to examine the relationship between the banks' annual growth and their type (Islamic banks/traditional banks).

It is expected that a bank's annual growth is very much influenced by its type. The hypothesis is therefore that Islamic banks' annual annual growth is much higher than traditional banks' (as explained in chapter three, section two).

Table 6-8 represents a two variable loglinear model : a) banks type with two categories and; b) banks' annual growth with three categories. This table, also shows the banks classified by their observed number and expected number in each annual growth in total asset category. 93 cases were used in the analysis. The other 16 cases were missing data.

Code	Growth	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
<b>IBs</b>				
V013	00-10%	5.00 ( 5.38)	10.97 (11.79)	-2.7488
V013	10-30%	12.00 (12.90)	10.32 (11.10)	.7832
V013	30-up%	13.00 (13.98)	8.71 ( 9.37)	2.0967
<b>TBs</b>				
V013	00-10%	29.00 (31.18)	23.03 (24.77)	2.7488
V013	10-30%	20.00 (21.51)	21.68 (23.31)	-.7832
V013	30-up%	14.00 (15.05)	18.29 (19.67)	-2.0967
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square = 8.82876 DF = 2 P = .012				

The observed significance level associated with Ch Sq is less than 0.02 hence the independence model that the annual growth in total assets is not influenced by the type (Islamic banks or traditional banks) of a bank is rejected. In other words, the analysis of this model suggests that the annual growth of total assets very much depends on whether it is an Islamic bank or traditional bank. Therefore, there is statistical evidence at the 5% level to support the hypothesis stated earlier that Islamic banks grew at a faster rate. Hence, the research hypothesis is accepted.

The foregoing analysis is supported by the analysis of the model table 6-5 where the observed number of the Islamic banks in the first category is far less than expected with low negative adj resid = -2.7488 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. That is contrary to the first category of traditional banks where the observed number is higher than expected with high positive adj resid = 2.7488 suggesting that there is an important discrepancy between the observed and expected numbers of the category.

The analysis of the first category implies that a lesser proportion of Islamic banks achieved annual growth less than 11% in total assets than traditional banks.

The observed numbers in the last category in Islamic banks are higher than expected with high positive adj resid = 2.0967 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. That is contrary to the last category of traditional banks where the observed numbers were less than expected with low negative adj resid = -2.0967 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. This analysis leads to the conclusion that the proportion of Islamic banks which achieved annual growth more than 30% in their total assets is much higher than that of traditional banks.

#### 6.4.2. ISLAMIC BANKS' ANNUAL GROWTH IN TOTAL ASSETS :

The aim of this section is to present the results of examining the relationship between Islamic banks' annual growth and their location.

It is expected that an Islamic bank's annual growth rate is influenced by its location. The hypothesis is therefore that Islamic banks-1's annual growth rate is higher than Islamic banks-2's (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.42600    DF = 2    P = .297

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is large around 0.3 hence the independence model that Islamic banks' annual growth in total assets is not influenced by their location is accepted. In other words, the rate at which an Islamic bank grew is independent of its location. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the annual growth of their assets.



### 6.4.3. TRADITIONAL BANKS' ANNUAL GROWTH IN TOTAL ASSETS :

The aim of this section is to present the results of examining the relationship between the traditional banks' annual growth and their type (traditional banks-1/traditional banks-2).

It is expected that a traditional bank's annual growth rate is influenced by its type. The hypothesis is therefore that traditional banks-1's annual growth rate is less than traditional banks-2's (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.04329    DF = 2    P = .594

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is large = 0.594 hence the independence model that traditional banks' annual growth is not influenced by their type is accepted. In other words, the analysis of this model suggests that the rate at which a traditional bank grew is independent of its type. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of the annual growth rate of their assets.

### 6.4.4. SUMMARY OF RESULTS :

Several hypotheses were tested in this section. The results are presented in table no 6-9.

Model	Hypotheses	Results
Banks' type and growth	Banks' type influences their grow	Accepted
IBs' location and growth	Location influences their growth	Rejected
TBs' type and growth	TBs' type influences their growth	Rejected

### 6.4.5. REMARK :

The analysis of the banks' total assets partly explains the results of the analysis of the size of banks (sections two and three of the current chapter). It provides an explanation of why there is no difference between Islamic banks' size and traditional banks' although Islamic banks are younger. One main reason could be that it is because they grew at a faster rate.

Although there is a significant difference in the rate of growth between Islamic banks and traditional banks it is surprising not to find the same difference between traditional banks-1 and traditional banks-2 as it is known traditional banks-2 are younger and therefore it might be expected that they should have grown at a higher rate than traditional banks-1 but that is not the case. This leads to the conclusion that Islamic banks grew at a higher rate than traditional banks-2 although the banks of both types are generally young.

## 6.5. OWNERSHIP OF BANKS :

The aim of this section is to focus on the analysis of the banks' ownership (private/government). This is to see whether there is any difference in the ownership of groups and subgroups of banks. The examination is performed on the basis of the following hypotheses :

- a. There is no difference between the ownership of Islamic banks and traditional banks.
- b. A higher proportion of Islamic banks-1 tend to be private while a higher proportion of Islamic banks-2 tend to be owned by governments.
- c. A higher proportion of traditional banks-1 tend to be private while a higher proportion of traditional banks-2 tend to be owned by governments.

### 6.5.1. BANKS' OWNERSHIP :

The aim of this section is to present the results of examining the banks' ownership in relation to their type (Islamic banks/traditional banks).

It is expected that banks' ownership (whether private or government) is not influenced by their type. The hypothesis is therefore that Islamic banks and traditional banks do not differ from each other in terms of ownership (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .29962      DF = 1      P = .584

There is insufficient statistical evidence at the 5% level to reject the hypothesis since the observed significance level associated with  $\chi^2$  is = 0.584 hence the independence model that the ownership is not influenced by the type (Islamic banks/traditional banks) of a bank is accepted.

In other words, the analysis of this model suggests that a bank's type (whether Islamic banks or traditional banks) does not appear to influence its ownership and that the bank's ownership is fully independent from its type. Hence, the research hypothesis is accepted.

This analysis leads to the conclusion that Islamic banks and traditional banks are similar in terms of the ownership.

**6.5.2. ISLAMIC BANKS' OWNERSHIP :**

The aim of this section is to examine the Islamic banks' ownership in relation to their location (Islamic banks-1/Islamic banks-2).

It is expected that Islamic banks' ownership (whether private or government) is influenced by their location. The hypothesis is therefore that a higher proportion of Islamic banks-1 tend to be owned by the private sector while a higher proportion of Islamic banks-2 tend to be owned by the public sectors (as explained in chapter three, section two).

Table number 6-10 represents a two variable loglinear model : a) location of Islamic banks with two categories (Islamic banks-1/Islamic banks-2) and; b) banks' ownership with two categories. This table, also shows the Islamic banks (Islamic banks-1/Islamic banks-2) classified by their observed number and expected number in each ownership category. 34 cases were used in the analysis.

Table 6-10				
IBs Classified by Their Type and ownership				
Code	ownership	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
V016D	IBs-1			
VOO6	Government	1.00 ( 2.94)	4.24 (12.46)	-2.6206
VOO6	Private	17.00 (50.00)	13.76 (40.48)	2.6206
V016D	IBs-2			
VOO6	Government	7.00 (20.59)	3.76 (11.07)	2.6206
VOO6	Private	9.00 (26.47)	12.24 (35.99)	-2.6206
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square = 7.44625 DF = 1 P = .006				

There is statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very small = 0.006 hence the independence model that ownership is not influenced by the location (Islamic banks-1 or Islamic banks-2) of a bank is

rejected. In other words, the analysis of this model suggests that the ownership of Islamic banks is very much dependent on their location, in other words, whether it is an Islamic banks-1 or an Islamic banks-2. Hence, the research hypothesis is accepted.

The foregoing analysis is supported by the analysis of the model table 6-6 where the observed number of Islamic banks-1 in the first category is less than expected with low negative adj resid = -2.6206 suggesting that there is an important discrepancy between the observed and expected numbers of the category. Contrary to the first category of traditional banks where the observed number is higher than expected with high positive adj resid = 2.6206 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. The analysis of the first category implies that more than expected of Islamic banks-2 are owned by governments.

The observed numbers in the last category in Islamic banks-1 are higher than expected with high positive adj resid = 2.6206 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. contrary to the last category of Islamic banks-2 where the observed numbers were less than expected with high negative adj resid = -2.6206 suggesting that there is an important discrepancy between the observed and the expected numbers of the category. The analysis of the last category leads to the conclusion that a higher proportion of Islamic banks-1 are private owned banks.

### 6.5.3. TRADITIONAL BANKS' OWNERSHIP :

The aim of this section is to present the results of examining the traditional banks' ownership in relation to their type (traditional banks-1/traditional banks-2).

It is expected that traditional banks' ownership (whether private or government) is influenced by their type. The hypothesis is therefore that a higher proportion of traditional banks-1 tend to be privately owned while a higher proportion of traditional banks-2 tend to be owned by governments (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.07238    DF = 1    P = .300

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with  $\chi^2$  is high = 0.3 hence the independence model that the ownership is not influenced by the type (traditional banks-1 or traditional banks-2) of a bank is accepted. In other words, the analysis of this model suggests that a traditional bank's type did not influence its ownership and that the traditional bank's ownership is independent of its type. Hence, the research hypothesis is rejected.

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of ownership.

**6.5.4. SUMMARY OF THE RESULTS :**

Several hypotheses were tested in this section. The results are presented in table no 6-11.

Model	Hypotheses	Results
Banks' type and ownership	Banks' type influences their owners	Rejected
IBs' location and ownership	Location influences their ownership	Accepted
TBs' type and ownership	TBs' type influences their ownershi	Rejected

**6.5.5. REMARK :**

The assumption made that a higher proportion of traditional banks-2 tend to be owned by the public sector is based on the fact that governments took the initiative to establish them in order to underpin the development process. However, since they include banks aimed at making profits such as investment banks, it seems traditional banks-2 cannot be characterised by public ownership.

The reason that there are some traditional banks-1 owned by governments is that some of traditional banks-1 are located in countries that follow (or used to follow) socialist systems and where the banks are owned by the public sector (for example, Algeria).

## **6.6. DISCUSSION OF THE FINDINGS ON THE BANKS' DESCRIPTION :**

This section focuses on the discussion of the findings of chapter six. It is discussed under six sections; introduction, age and ownership, size, growth and summary.

### **6.6.1. INTRODUCTION :**

The aim of this chapter was to describe the surveyed banks/Islamic banks/traditional banks so the reader would have a clear picture of them before starting the analysis of their long term finance programmes performance as in chapters seven, eight, nine, ten and 11.

The chapter focussed on the analysis of four factors related to the description of banks : a) the banks' age; b) the banks' size; c) the banks' growth and; d) the banks' ownership. Fifteen hypotheses related to these factors were tested and discussed. Table 6-12 shows a summary of all results. five results of the analysis were supportive to what was hypothesized before the analysis of the data. The other ten were not.

### **6.6.2. AGE AND OWNERSHIP :**

The results of analysing banks' age were confirmative of the predetermined ideas that Islamic banks generally are younger and traditional banks-1 are older. But, surprisingly, Islamic banks' ages were not as was anticipated. It was expected that there would be no significant difference between Islamic banks-1's and Islamic banks-2's age. It was found that Islamic banks-2 are older than Islamic banks-1 contrary to the knowledge that the Islamic banking industry started in 1970's. These results raised important questions as to why some Islamic banks are aged more than 21 years? Does it have any relation with the enforcement of Islamisation in Islamic banks-2? Does the Islamic banks' age convey accurate information on whether the bank started to operate on an Islamic basis from the beginning? It was found that Islamic banks-2's age is older than Islamic banks-1's because all, except for one, the converted banks are from Islamic banks-2. These converted Islamic banks-2 were established before the 1970's. It was found that there should be a distinction made between the established date and the date in which a bank started to operate on an Islamic basis. All converted Islamic banks started to operate on an Islamic basis in

the 1970's despite their earlier establishment.

These results are in line with the results of the hypotheses related to ownership. It was found that higher proportion of Islamic banks-2 are owned by the public sector. In other words, it seems that factors discussed in chapter three, section two and in chapter one section one, related to the support of Islamic governments to the Islamic banking industry came in two forms. The first is the Islamisation of banking business and the second is to own more of the Islamic banks.

### **6.6.3. SIZE OF ASSETS AND CAPITAL :**

The banks' size was analysed in two dimensions namely : size of total assets relative to other banks in their county, and size of capital in 1991. The two dimensions pointed to the same results. They all confirmed that there is no fundamental dissimilarity in the size of banks' assets and capital. Most noticeably, there was no crucial variation between the size of, on the one hand, Islamic banks and traditional banks, and on the other hand, Islamic banks-1 and Islamic banks-2.

#### **6.6.3.a. ISLAMIC BANKS' AND TRADITIONAL BANKS' SIZE :**

It was expected that the Islamic banks' size would be smaller because they are younger but there was no significant difference in the size of Islamic banks and traditional banks. Two factors could be the main causes of this result : a) Islamic banks grew at a higher rate than traditional banks as discussed in section four of the current chapter and; b) The transfer of funds between Arab and muslim countries. These two factors seem to make it possible that Islamic banks and traditional banks are similar in terms of size of capital and asset.

#### **6.6.3.b. ISLAMIC BANKS-1's AND ISLAMIC BANKS-2's SIZE :**

It was found that there was no significant difference between Islamic banks-1 and Islamic banks-2 in terms of size. These results could be due to the transfer of funds between Arab and muslim countries which made it possible that Islamic banks-1 and Islamic banks-2 are similar in terms of size. For further discussion, see chapter eleven, section three.

#### **6.6.4. ANNUAL GROWTH OF TOTAL ASSET IN THE BANKING INDUSTRY :**

Banks' growth, however, is of a particular interest because the assumption was that younger banks, in other words, Islamic banks and traditional banks-2 would achieve a higher rate of growth because they have not yet reached their mature stage.

It seems the reason that Islamic banks grew at a faster rate than the traditional banks' is not because of their age, otherwise traditional banks-2 should have grown at a faster rate than traditional banks-1. It could be that Islamic banks grew at a faster rate than traditional banks because they satisfy a need for an unutilised segment of the market in their countries. Several writers (Shehada 1991, pages 36-36 [163] and Alnajjar 1984, pp.3-13[39]) have pointed out that Islamic banks fill a vacuum in the market rather than compete with other banking systems.

#### **6.6.5. SUMMARY :**

In conclusion, it was found that :

First, findings related to all banks together, on the one hand, Islamic banks differ from traditional banks in the following:

- a. Age, Islamic banks tend to be younger (in line with the hypothesis).
- b. Growth, Islamic banks tend to have higher rate of annual growth in their total assets (in line with the hypothesis).

On the other hand, Islamic banks are similar to traditional banks in the following :

- a. Size of total assets (not in line with the hypothesis).
- b. Size of capital in 1991 (not in line with the hypothesis).
- c. Ownership (in line with the hypothesis).

Secondly, findings related to the Islamic banking industry (Islamic banks-1/Islamic banks-2). On the one hand, Islamic banks-1 differ from Islamic banks-2 in the following :

- a. Age, a higher proportion of Islamic banks-1 tend to be younger (not in line with the hypothesis).



Converted Islamic banks are older than banks which were originally established as Islamic banks.

- b. Ownership where a higher proportion of Islamic banks-1 tend to be in the private sector ownership (in line with the hypothesis).

On the other hand, they (Islamic banks-1/Islamic banks-2) are similar in the following :

- a. Size of total assets (not in line with the hypothesis).
- b. Size of capital in 1991 (not in line with the hypothesis).
- c. The annual growth of their assets (not in line with the hypothesis).

Thirdly, findings related to the traditional banking industry (traditional banks-1/traditional banks-2). On the one hand, traditional banks-1 differ from traditional banks-2 in the following :

- a. Traditional banks-1 tend to be older (in line with the hypothesis).

On the other hand, they (traditional banks-1/traditional banks-2) are similar in the following :

- a. Size of assets (not in line with the hypothesis).
- b. Size of capital in 1991 (not in line with the hypothesis).
- c. The annual growth of their assets (not in line with the hypothesis).
- d. Ownership (not in line with the hypothesis).

## CHAPTER SEVEN

### ANNUAL LONG TERM FINANCE RATIO IN THE BANKING INDUSTRY

The aim of chapters seven to eleven is to focus on the analysis of long term finance programmes performance in the Islamic and traditional banking industries as follows : a) long term finance ratio; b) contribution to individual long term finance programmes; c) rate of return on long term finance programmes; d) the application of 4M (musharaka, mudaraba, murabaha and muzaraha) in the Islamic banking industry and; e) success of long term finance programmes in the banking industry.

The aim of current chapter, that is chapter seven, is to focus on the analysis of one aspect of long term finance performance in the Islamic and traditional banking industries. This aspect is the annual ratio of long term finance.

The chapter comprises three sections : 1) annual long term finance ratio in the banking industry; 2) annual long term finance ratio in the Islamic banking industry and; 3) discussion of the findings.

#### 7.1. ANNUAL LONG TERM FINANCE RATIO IN THE BANKING INDUSTRY :

The aim of this section is to examine the annual long term finance ratio in the Islamic and traditional banking industries. The annual long term finance ratio is the ratio of average annual long term finance to total assets, in other words, the annual proportion of total assets allocated to long term finance programmes.

The analysis is performed on the basis of the following hypotheses :

- a. Islamic banks allocate a lesser proportion of their resources to long term finance programmes than traditional banks.
- b. Islamic banks-1 allocate a lesser proportion of their resources to long term finance programmes than Islamic banks-2.
- c. Traditional banks-1 allocate a lesser proportion of their resources to long term finance programmes than traditional banks-2.

- d. Younger banks/Islamic banks /traditional banks allocate a lesser proportion of their resources to long term finance programmes than older banks/Islamic banks /traditional banks.
- e. Smaller banks/Islamic banks/traditional banks allocate a lesser proportion of their resources to long term finance programmes than larger banks/Islamic banks/traditional banks.

#### **7.1.1. BANKS' ANNUAL LONG TERM FINANCE RATIO :**

The aim of this section is to present the results of examining the banks' annual long term finance to total assets ratio in relation to their type (Islamic banks/traditional banks).

It is expected that a bank's decision in allocating resources to long term finance programmes is influenced by its type. The hypothesis is therefore that Islamic banks allocate a lesser proportion of their resources to long term finance programmes than traditional banks (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.60371    DF = 2    P = .100

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is = 0.100 hence the independence model that the annual long term finance ratio is not influenced by the type (Islamic banks/traditional banks) of a bank is accepted. In other words, the analysis of this model suggests that a bank's type does not appear to influence its decision in allocating resources to long term finance programmes.

This analysis leads to the conclusion that Islamic banks and traditional banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### **7.1.1.a. BANKS' ANNUAL LONG TERM FINANCE RATIO AND AGE :**

The aim of this section is to present the results of examining the banks' annual long term finance ratio in relation to their age.

It is assumed that the long term finance ratio will depend on the bank's age. The hypothesis

therefore is that younger banks will have a lesser proportion of their resources allocated to long term finance programmes than older banks (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 9.62127 DF = 6 P = .142

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is = 0.142 hence the independence model that the annual long term finance ratio is not influenced by a bank's age is accepted. In other words, the analysis of this model suggests that the proportion of resources allocated to long term finance programmes does not appear to depend on the bank's age.

This analysis leads to the conclusion that younger and older banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### **7.1.1.b. BANKS' ANNUAL LONG TERM FINANCE RATIO AND SIZE :**

The aim of this section is to present the results of examining the banks' annual long term finance ratio in relation to their size of capital (in \$m).

It is assumed that the annual long term finance ratio will depend on the bank's size. The hypothesis therefore is that smaller banks will have a lesser proportion of their resources allocated to long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 6.09269 DF = 4 P = .192

*There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is = 0.192 hence the independence model that the annual long term finance ratio is not influenced by the size of banks is accepted. In other words, the analysis of this model suggests that the proportion of a bank's resources allocated to long term finance programmes does not appear to depend on it size.*

This analysis leads to the conclusion that smaller and larger banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

### 7.1.2. ISLAMIC BANKS' ANNUAL LONG TERM FINANCE RATIO :

The aim of this section is to present the results of examining the Islamic banks' annual long term finance ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its annual long term finance ratio.

It is expected that the Islamic banks' annual long term finance ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 allocate a lesser proportion of their resources to long term finance programmes than Islamic banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.05005      DF = 2      P = .592

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is high = 0.592 hence the independence model that the Islamic bank's annual long term finance ratio is not influenced by its location (Islamic banks-1/Islamic banks-2) is accepted. In other words, the analysis of this model suggests that the location does not appear to influence the Islamic bank's decision to allocate resources to long term finance programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### 7.1.2.a. ISLAMIC BANKS' ANNUAL LONG TERM FINANCE RATIO AND AGE :

The aim of this section is to present the results of examining the Islamic banks' annual long term finance ratio in relation to their age.

It is assumed that the annual long term finance ratio will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks will have a lesser proportion of their resources allocated to long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square= 3.43597      DF = 6      P = .752

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is = 0.752 hence the independence model that the annual long term finance ratio is not influenced by an Islamic bank's age is accepted. In other words, the analysis of this model suggests that an Islamic bank's age appears to have no impact on its decision of allocating resources to long term finance programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### **7.1.2.b. ISLAMIC BANKS' ANNUAL LONG TERM FINANCE RATIO AND SIZE:**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance ratio in relation to their size of capital (in \$m).

It is assumed that the annual long term finance ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have a lesser proportion of their resources allocated to long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.33907    DF = 4    P = .674

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is high = 0.674 hence the independence model that the annual long term finance ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the decision to allocate resources to long term finance programmes in the Islamic banking industry does not appear to depend on the size of bank's capital.

This analysis leads to the conclusion that smaller Islamic banks and older Islamic banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

**7.1.3. TRADITIONAL BANKS' ANNUAL LONG TERM FINANCE RATIO :**

The aim of this section is to examine the traditional banks' annual long term finance ratio in relation to their type (traditional banks-1 and traditional banks-2).

It is expected that a traditional bank's type influences its decision in allocating resources to long term finance programmes. Therefore, the hypothesis is that traditional banks-1 allocate a lesser proportion of their resources to long term finance programmes than traditional banks-2 (as explained in chapter three, section two).

Table 7-1 represents a two variable loglinear model : a) traditional banks' type with two categories and; b) the annual long term finance ratio with three categories. This table also shows the traditional banks classified by their observed number and expected number in each annual long term finance ratio category. 69 cases were used in the analysis. The other sixteen cases were missing data.

Table 7-1				
TBs Classified by Their Type & Annual LTF Ratio				
Code	LTF ratio	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
TBs-1				
V017T	0-10	27.00 (39.13)	22.26 (32.26)	2.4864
V017T	10-30	14.00 (20.29)	14.61 (21.17)	-.3461
V017T	30-100	7.00 (10.14)	11.13 (16.13)	-2.5606
TBs-2				
V017T	0-10	5.00 (7.25)	9.74 (14.11)	-2.4864
V017T	10-30	7.00 (10.14)	6.39 (9.26)	.3461
V017T	30-100	9.00 (13.04)	4.87 (7.06)	2.5606
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square=8.40028 DF=2 P=.015				

The observed significance level associated with Ch Sq is = 0.015 hence the independence model that the traditional banks' annual long term finance ratio is not influenced by their type (traditional banks-1/traditional banks-2) is rejected. In other words, the analysis of this model suggests that traditional banks' type influences their decision in allocating resources to long term finance programmes.

The foregoing analysis is supported by the high adj resid between the observed and expected numbers of some categories in the model table 7-1 where the observed number of traditional

banks-1 in the first category is higher than expected contrary to the first category of traditional banks-2 where the observed number is less than expected. The adj resid exceeds -2,2 suggesting that there is an important discrepancy between the observed and expected numbers of the first category of both groups of traditional banks. The analysis of this category for both groups reflects the fact that higher number of traditional banks-1 than expected prefer not to allocate more than 10% of their resources to long term finance programmes whereas the contrary is true for traditional banks-2.

The observed number of traditional banks-1 in the last category is less than expected with a high discrepancy between the observed and expected numbers expressed by a low negative adj resid = -2.5606. While the observed number of traditional banks-2 is higher than expected with high discrepancy between the observed and expected numbers resulted in a high positive adj resid = 2.5606. This category reflects the fact that more than expected of traditional banks-2 prefer to allocate more than 30% of their resources to long term finance programmes whereas the contrary is true for traditional banks-1.

This analysis leads to the conclusion that traditional banks-2 invest a higher proportion of resources in long term finance programmes than traditional banks-1. Therefore, the research hypothesis is accepted at the 5% significance level.

#### **7.1.3.a. TRADITIONAL BANKS' ANNUAL LONG TERM FINANCE RATIO AND AGE :**

The aim of this section is to present the results of examining the traditional banks' annual long term finance ratio in relation to their age.

It is assumed that the long term finance ratio will depend on the traditional bank's age. The hypothesis therefore is that younger traditional banks will have a lesser proportion of their resources committed to long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi sq =10.76517 DF = 0 P =.096

There is insufficient statistical evidence at the 5% level to support the hypothesis since the



observed significance level associated with Ch Sq is = 0.096 hence the independence model that the traditional banks' annual long term finance ratio is not influenced by their age is accepted. In other words, the analysis of this model suggests that a traditional bank's age does not appear to influence its decision to allocate resources to long term finance programmes.

This analysis leads to the conclusion that younger traditional banks and older traditional banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### **7.1.3.b. TRADITIONAL BANKS' LONG TERM FINANCE RATIO AND SIZE :**

The aim of this section is to present the results of examining the traditional banks' annual long term finance ratio in relation to their size of capital (in \$m).

It is assumed that the annual long term finance ratio will depend on the traditional bank's size. The hypothesis therefore is that smaller traditional banks will have a lesser proportion of their resources committed to long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi sq =4.08379 DF =4 P =.395

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is high = 0.395 hence the independence model that the annual long term finance ratio is not influenced by the size of a traditional bank is accepted. In other words, the analysis of this model suggests that the traditional banks' decisions to allocate resources to long term finance programmes does not appear to depend on their assets.

This analysis leads to the conclusion that smaller traditional banks and larger traditional banks are similar in terms of the long term finance ratio, in other words, the proportion of resources invested in long term finance programmes. Therefore, the research hypothesis is rejected.

#### **7.1.4. SUMMARY OF RESULTS :**

This section focussed on the analysis of the annual long term finance ratio in both Islamic banking and traditional banking industries. Several hypotheses were tested. A summary of the

results are presented in table no 7-2.

Model	Hypotheses	Results
LTF and banks' type	Banks' type influences LTF ratio	Rejected
LTF and IBs' locatn	IBs' location influences LTF ratio	Rejected
LTF and TBs' type	TBs' type influences LTF ratio	Accepted
LTF and bank's age	Banks' age influences LTF ratio	Rejected
LTF and IBs' age	IBs' age influences LTF ratio	Rejected
LTF and TBs' age	TBs' age influences LTF ratio	Rejected
LTF and banks' size	Banks' size influences LTF ratio	Rejected
LTF and IBs' size	IBs' size influences LTF ratio	Rejected
LTF and TBs' size	TBs' size influences LTF ratio	Rejected

**7.1.5. REMARK :**

Nine research hypotheses were examined and analysed. These hypotheses are related to the long term finance ratio in both Islamic banking and traditional banking industries. It appears that only one hypothesis is accepted which is that traditional banks-2 allocate a higher proportion of their resources to long term finance programmes than traditional banks-1. Otherwise, all research hypotheses were rejected. In other words, type of banks (Islamic banks/traditional banks), location of Islamic banks (Islamic banks-1/Islamic banks-2), age and size of banks/Islamic banks/traditional banks appear not to influence their decisions to allocate resources to long term finance programmes.

**7.2. LONG TERM FINANCE MUSHARAKA, MUDARABA, MURABAHA AND MUZARAHA RATIO :**

The ratio of long term finance to total assets was discussed (section one of the current chapter). Unlike traditional banks, Islamic banks use more than one policy, that is the 4M (musharaka, mudaraba, murabaha, muzaraha), to finance long term finance programmes. In other words, the proportion of resources allocated to conduct long term finance programmes in the Islamic banking industry is shared by more than one policy, that is the 4M. The aim of this section is to examine the ratio of each one of these 4M policies to total long term finance, for example, long term finance musharaka to total long term finance. So, this section focuses on the analysis of long term finance ratio using musharaka, mudaraba, murabaha and muzaraha, that is the 4M (as discussed in

chapter two, sections two, three, four and five).

The analysis is performed on the basis of the following hypotheses :

- a. Islamic banks-1 allocate a lesser proportion of their long term finance resources to long term finance musharaka mudaraba and muzaraha programmes than Islamic banks-2.
- b. Islamic banks-1 allocate a higher proportion of their long term finance resources to long term finance murabaha programmes than Islamic banks-2.
- c. Younger Islamic banks allocate a lesser proportion of their long term finance resources to long term finance mushsharaka mudaraba and muzaraha programmes than older Islamic banks.
- d. Younger Islamic banks allocate a higher proportion of their long term finance resources to long term finance murabaha programmes than older Islamic banks.
- e. Smaller Islamic banks allocate a lesser proportion of their long term finance resources to long term finance musharaka mudaraba and muzaraha programmes than larger Islamic banks.
- f. Smaller Islamic banks allocate a higher proportion of their long term finance resources to long term finance murabaha programmes than larger Islamic banks.

#### **7.2.1. LONG TERM FINANCE MUSHARAKA RATIO :**

This ratio is the ratio of the annual long term finance musharaka to total annual long term finance, in other words, the total annual long term finance musharaka programmes to the total annual long term finance programmes, in the Islamic banking industry.

The aim of this section is to present the results of examining the Islamic banks' long term finance musharaka ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision in allocating long term finance resources to long term finance musharaka programmes.

It is expected that the Islamic banks' long term finance musharaka ratio is influenced by their

location. The hypothesis therefore is that Islamic banks-1 allocate a lesser proportion of their long term finance resources to long term finance musharaka programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi sq = .56127    DF=2    P=.755

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.754 hence the independence model that the long term finance musharaka ratio is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location of an Islamic bank does not appear to influence its decision in allocating long term finance resources to long term finance musharaka programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the proportion of long term finance resources allocated to long term finance musharaka programmes. Therefore, the research hypothesis is rejected.

#### **7.2.1.a. LONG TERM FINANCE MUSHARAKA IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance musharaka ratio in relation to their age.

It is assumed that the long term finance musharaka ratio will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks will have a lesser proportion of their long term finance resources allocated to long term finance musharaka programmes. (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.24503    DF = 6    P = .896

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very high = 0.896 hence the independence model that the long term finance musharaka ratio is not influenced by an Islamic bank's age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision to allocate resources to long term finance musharaka programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance musharaka programmes. Therefore, the research hypothesis is rejected.

#### **7.2.1.b. LONG TERM FINANCE MUSHARAKA IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance musharaka ratio in relation to their size of capital (in \$m).

It is assumed that the long term finance ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have a lesser proportion of their long term finance resources committed to long term finance musharaka programmes. (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 3.12968    DF = 4    P = .546

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.545 hence the independence model that long term finance musharaka ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic banks' size does not appear to influence their decision to allocate long term finance resources to long term finance musharaka programmes.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance musharaka programmes. Therefore, the research hypothesis is rejected.

#### **7.2.2. LONG TERM FINANCE MUDARABA RATIO :**

This ratio is the ratio of the annual long term finance mudaraba programmes to total long term finance programmes in the Islamic banking industry.

The aim of this section is to present the results of examining the Islamic banks' long term finance mudaraba ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its ratio of long term finance mudarabaha

programmes to total long term finance programmes.

It is expected that the Islamic banks' long term finance mudaraba ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 allocate a lesser proportion of their long term finance resources to long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .23830    DF = 2    P = .888

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.88 hence the independence model that the long term finance mudaraba ratio is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not seem to influence the Islamic banks' decisions to allocate their long term finance resources to long term finance mudaraba programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the proportion of long term finance resources allocated to long term finance mudaraba programmes. Therefore, research the hypothesis is rejected.

#### **7.2.2.a. LONG TERM FINANCE MUDARABA IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance mudaraba in relation to their age.

It is assumed that the long term finance mudarabaha ratio will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks will have a lesser proportion of their long term finance resources allocated to long term finance mudaraba programmes. (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.48229    DF = 6    P = .612

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.611 hence the independence model that the long term finance mudaraba ratio is not influenced by age of Islamic banks is

accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision to allocate long term finance resources to long term finance mudaraba programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance mudaraba programmes. Therefore, the hypothesis is rejected.

#### **7.2.2.b. LONG TERM FINANCE MUDARABA IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance mudaraba ratio in relation to their size of capital (in \$m).

It is assumed that the long term finance mudaraba ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have fewer long term finance mudaraba programmes than larger Islamic banks (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.13719    DF = 4    P = .888

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.887 hence the independence model that the long term finance mudaraba ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic bank's size does not appear to influence its decision to allocate long term finance resources to long term finance mudaraba programmes.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance mudaraba programmes. Therefore, the hypothesis is rejected.

#### **7.2.3. LONG TERM FINANCE MURABAHA RATIO :**

This ratio is the ratio of the annual long term finance murabaha to total long term finance in Islamic banking industry. In other words, the annual long term finance murabaha programmes to total long term finance programmes.

The aim of this section is to present the results of examining the Islamic banks' long term finance murabaha ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision to allocate long term finance resources to long term finance murabaha programmes.

It is expected that the Islamic banks' long term finance murabaha ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 invest a higher proportion of their long term finance resources in long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.92606      DF = 2      P = .232

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.231 hence the independence model that the ratio of long term finance murabaha is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not appear to influence the Islamic banks' decisions to allocated long term finance resources to long term finance murabaha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the proportion of long term finance resources allocated to long term finance murabaha programmes. Therefore, the hypothesis is rejected.

#### **7.2.3.a. LONG TERM FINANCE MURABAHA IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance murabaha ratio in relation to their age.

It is assumed that the long term finance murabaha ratio will depend on the Islamic bank's age and that younger Islamic banks have less experience in applying other finance policies, for example, musharaka. The hypothesis therefore is that younger Islamic banks will have a higher proportion of their long term finance resources allocated to long term finance murabaha programmes (as explained in chapter three, section two).



Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.02504 DF = 6 P = .673

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.672 hence the independence model that long term finance murabaha ratio is not influenced by an Islamic bank's age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision to allocate long term finance resources to long term finance murabaha programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance murabaha programmes. Therefore, the hypothesis is rejected.

#### **7.2.3.b. LONG TERM FINANCE MURABAHA IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance murabaha ratio in relation to their size of capital (in \$m).

It is assumed that long term finance murabaha ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have a higher proportion of their long term finance resources committed to long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.81929 DF = 4 P = .213

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.212 hence the independence model that the long term finance murabaha ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic bank's size does not appear to influence its decision to allocate long term finance resources to long term finance murabaha programmes.

This analysis leads to the conclusion that smaller Islamic banks and older Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance

murabaha programmes. Therefore, the research hypothesis is rejected.

#### **7.2.4. LONG TERM FINANCE MUZARAHHA RATIO :**

This ratio is the ratio of the annual long term finance muzaraha programmes to total long term finance programmes in the Islamic banking industry.

The aim of this section is to present the results of examining the Islamic banks' annual long term finance muzaraha programmes ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision to allocate long term finance resources to long term finance muzaraha programmes.

It is expected that the Islamic banks' long term finance muzaraha ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 invest a lower proportion of their long term finance resources in long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.72609    DF = 2    P = .422

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.421 hence the independence model that the ratio of long term finance muzaraha is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not seem to influence the Islamic banks' decisions to allocate long term finance resources to long term finance muzaraha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the proportion of long term finance resources allocated to long term finance muzaraha programmes. Therefore, the hypothesis is rejected.

#### **7.2.4.a. LONG TERM FINANCE MUZARAHHA IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance muzaraha ratio in relation to their age.

It is assumed that the long term finance ratio will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks will have a lesser proportion of their long term finance resources allocated to long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 8.06688    DF = 6    P = .233

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.232 hence the independence model that long term finance muzaraha ratio is not influenced by an Islamic bank's age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence their decision to allocate long term finance resources to long term finance muzaraha programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance muzaraha programmes. Therefore, the hypothesis is rejected.

#### **7.2.4.b. LONG TERM FINANCE MUZARAHHA IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' annual long term finance muzaraha ratio in relation to their size of capital (in \$m).

It is assumed that the long term finance muzaraha ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have lower proportion of long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.60796    DF = 4    P = .807

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.806 hence the independence model that the long term finance muzaraha ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic bank's size does not seem to influence its decision to allocate long term finance resources to long term finance

muzaraha programmes.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the proportion of long term finance resources allocated to long term finance muzaraha programmes. Therefore, the hypothesis is rejected.

#### 7.2.5. SUMMARY OF RESULTS :

This section focussed on the analysis of the annual long term finance ratio in the Islamic banking industry. Several hypotheses were tested. The results are presented in table no 7-3.

Model	Hypotheses	Results
LTF musharaka and location	Loctn influences LTF mush	Rejected
LTF musharaka and age	Age influences LTF mush	Rejected
LTF musharaka and size	Size influences LTF mush	Rejected
LTF mudaraba and location	Loctn influences LTF mud	Rejected
LTF mudaraba and age	Age influences LTF mud	Rejected
LTF mudaraba and size	Size influences LTF mud	Rejected
LTF murabaha and location	Loctn influences LTF mur	Rejected
LTF murabaha and age	Age influences LTF mur	Rejected
LTF murabaha and size	Size influences LTF mur	Rejected
LTF muzraha and location	Loctn influences LTF muz	Rejected
LTF muzraha and age	Age influences LTF muz	Rejected
LTF muzraha and size	Size influences LTF muz	Rejected

#### 7.2.6. REMARK :

Twelve research hypotheses were examined and analysed. These hypotheses are related to long term finance musharaka, mudaraba, murabaha and muzaraha, that is 4M, programmes in the Islamic banking industry. All the research hypotheses are rejected. In other words, location, age and size of Islamic banks appear not to influence their decisions to employ any policy of the 4M in their long term finance programmes.

#### 7.3. DISCUSSION OF THE FINDINGS ON LONG TERM FINANCE RATIO :

This section focuses on the discussion of the findings of the seventh chapter as follows : 1) discussion of the first section findings and; 2) discussion of the second section findings.

### 7.3.1. DISCUSSION OF THE FIRST SECTION FINDINGS :

The first section of this chapter focussed on the analysis of the long term finance ratio in the surveyed banks/Islamic banks/traditional banks. It examined the ratio in relation to type of bank (Islamic banks/traditional banks), location of Islamic banks (Islamic banks-1/Islamic banks-2) and type of traditional banks (traditional banks-1/traditional banks-2).

It was found that a bank's decision as to the proportion of its resources invested in long term finance programmes does not seem to depend on whether the bank is an Islamic bank/traditional bank or whether it is an Islamic banks-1 or Islamic banks-2 but it seems that it depends on whether it is a traditional banks-1 or a traditional banks-2.

It was expected (in chapter three, section two). that traditional banks would invest a greater proportion of their resources in long term finance programmes than Islamic banks because traditional banks are older and therefore more experienced but that was not the case. In comparison with traditional banks, it seems that Islamic banks do not lack long term finance programmes.

It was expected (chapter three, section two). that Islamic banks-2 would invest a higher proportion of their resources in long term finance programmes as they (supposedly) enjoy more support from their Islamic governments and that should give them more confidence in having a larger proportion of their resources allocated to long term finance programmes but that was not the case. In comparison to Islamic banks-2, it seems that Islamic banks-1 do not lack long term finance programmes.

It was discussed in chapter three, that traditional banks-2 would allocate a larger proportion of their resources to long term finance programmes than traditional banks-1 since they were established to help development and long term programmes in the Arab countries. There was support for this hypothesis : traditional banks-2 do indeed appear to invest higher proportion of their resources in long term finance programmes than traditional banks-1.

The long term finance ratio was examined in relation to banks'/Islamic banks'/traditional banks' characteristics namely : age and size. There was no case in which age or size seemed to influence

the banks' decisions as to the proportion of resources to be invested in long term finance programmes. In other words, banks/Islamic banks/traditional banks seem to decide the proportion of resources to be invested in long term finance programmes regardless their age or size of capital.

### **7.3.2. DISCUSSION OF THE SECOND SECTION FINDINGS :**

The second section of this chapter focussed solely on the analysis of the Islamic finance policies. The main objective was to see whether the application of these policies in the long run differ from Islamic banks-1 to Islamic banks-2, on the basis that Islamic banks-2 enjoy the facilities of Islamic economies and that they would have more applications of long term finance in musharaka, mudaraba, and muzaraha programmes.

These policies, ie the 4M have been regulated by law in Pakistan and Iran, as discussed in chapter two. For the other reasons discussed in chapter three, section two, it was expected that banks in these countries, ie Islamic banks-2, would invest a higher proportion of their long term finance resources in the 4M. But that was not the case. In comparison to Islamic banks-2, it seems that Islamic banks-1 do not lack long term finance musharaka, mudaraba, and muzaraha programmes.

Islamic banks-1 were expected to invest higher proportion of their long term finance resources in long term finance murabaha programmes because murabaha is the least risky of the 4M (chapter two) but that was not the case, it seems that Islamic banks-1 and Islamic banks-2 do not differ in terms of investing in long term finance murabaha programmes.

These policies were also tested to see whether the age and size of Islamic banks influence their applications.

It was expected that smaller and younger Islamic banks would invest a lesser proportion of their long term finance resources in long term finance musharaka, mudaraba and muzaraha, because small banks would not have the facilities necessary to conduct these policies and because younger Islamic banks do not have the expertise to handle these programmes. But that was not the case. It seems that smaller and younger Islamic banks match with larger and older Islamic banks in

terms of the proportion of long term finance resources invested in long term finance musharaka, mudaraba and muzaraha programmes.

It was expected smaller and younger banks would invest a higher proportion of their long term finance resources in long term finance murabaha programmes as they easier to conduct compared to the other policies but that was not the case. It seems younger and smaller Islamic banks are similar in terms of the proportions of long term finance resources invested in long term finance murabaha programmes to older, larger Islamic banks.

## CHAPTER EIGHT

### CONTRIBUTION TO INDIVIDUAL LONG TERM FINANCE PROGRAMMES IN THE BANKING INDUSTRY

The aim of this chapter is to focus on the analysis of one aspect of long term finance performance in the Islamic and traditional banking industries. This aspect is the contribution ratio to individual long term finance programmes. In other words, the percentage in which a bank contributes to individual long term finance programmes, that is a bank finance to total programme finance. This ratio also examines the degree in which banks get involved in individual long term finance programmes. Therefore, contribution and involvement will be used interchangeably.

The chapter comprises three sections : 1) contribution ratio in the Islamic banking industry; 2) contribution ratio in the traditional banking industry and; 3) discussion of the findings.

#### 8.1. ISLAMIC BANKS' CONTRIBUTION :

The aim of this section is to focus on the analysis of the degree of involvement of Islamic banks in individual long term finance musharaka, mudaraba, murabaha and muzaraha programmes. The involvement is measured by the percentage of finance that an Islamic bank contributes to individual long term finance programmes. So, this ratio is the maximum amount (percentage) of finance (either musharaka, mudaraba, murabaha or muzaraha) that an Islamic bank is willing to contribute to total programme finance.

The analysis is performed on the basis of the following hypotheses :

1. Islamic banks-1 contribute a lesser proportion to individual long term finance 4M programmes than Islamic banks-2, in other words, they are less involved in long term finance 4M programmes.
2. Younger Islamic banks contribute a lesser proportion to individual long term finance 4M programmes, in other words, they are less involved in long term finance 4M programmes.
3. Smaller Islamic banks contribute a lesser proportion individual long term finance 4M programmes, in other words, are less involved in long term finance 4M programmes.



### **8.1.1. LONG TERM FINANCE MUSHARAKA CONTRIBUTION RATIO :**

This ratio is the maximum percentage of a finance that an Islamic bank can contribute to individual long term finance musharaka programmes.

The aim of this section is to present the results of examining the Islamic banks' contribution ratio to individual long term finance musharaka programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision to contribute to individual long term finance musharaka programmes.

It is expected that the Islamic banks' long term finance musharaka contribution ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 contribute a lesser proportion of finance to individual long term finance musharaka programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .76770    DF = 2    P = .681

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is very large = 0.681 hence the independence model that the Islamic banks' long term finance musharaka contribution ratio is not influenced by their location (Islamic banks-1/Islamic banks-2) is accepted. In other words, the analysis of this model suggests that the location does not appear to influence (limit) the Islamic bank's decision to contribute to the finance of individual long term finance musharaka programmes to any maximum proportion of funds.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance musharaka programmes. Therefore, the research hypothesis is rejected.

#### **8.1.1.a. LONG TERM FINANCE MUSHARAKA CONTRIBUTION AND AGE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance musharaka contribution ratio in relation to their age.

It is assumed that the contribution ratio will depend on an Islamic bank's age. The hypothesis therefore is that younger Islamic banks will contribute a lesser proportion to the finance of individual long term finance musharaka programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 6.05630 DF = 6 P = .417

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.416 hence the independence model that contribution ratio is not influenced by its age is accepted. In other words, the analysis of this model suggests that an Islamic bank's age does not appear to influence its decision as to the degree of involvement in individual long term finance musharaka programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the degree in which they involve themselves in individual long term finance musharaka programmes. The research hypothesis therefore is rejected.

#### **8.1.1.b. LONG TERM FINANCE MUSHARAKA CONTRIBUTION AND SIZE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance musharaka contribution ratio in relation to their size of capital (in \$m).

It is assumed that the contribution ratio will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will have less involvement in individual long term finance musharaka programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.87128 DF = 4 P = .301

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.300 hence the independence model that the long term finance musharaka contribution ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that an Islamic bank's size does not seem to influence its decision as to the degree of involvement in individual long term finance musharaka programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in

terms of the degree in which they involve themselves in individual long term finance musharaka programmes. The research hypothesis therefore is rejected.

### **8.1.2. LONG TERM FINANCE MUDARABA CONTRIBUTION RATIO :**

This ratio is the ratio of the maximum percentage of a finance that an Islamic bank can contribute to individual long term finance mudaraba programmes.

The aim of this section is to present the results of examining the Islamic banks' long term finance mudaraba contribution ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision to contribute to individual long term finance mudaraba programmes.

It is expected that the Islamic banks' long term finance mudaraba contribution ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 are less involved in individual long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.12880      DF = 2      P = .345

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.344 hence the independence model that the ratio of contribution to individual long term finance mudaraba programme is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that an Islamic bank's location does not seem to influence its decision as to the degree of involvement in individual long term finance mudaraba programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance muudaraba programmes. Therefore, the research hypothesis is rejected.

### **8.1.2.a. LONG TERM FINANCE MUDARABA CONTRIBUTION AND AGE :**

The aim of this section is to present the results of examining the Islamic banks' involvement in individual long term finance mudaraba programmes in relation to their age.

It is assumed that the Islamic banks' involvement in individual long term finance mudaraba programmes will depend on their age. The hypothesis therefore is that younger Islamic banks will be less involved in individual long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.29429    DF = 6    P = .507

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.506 hence the independence model that the long term finance mudaraba contribution ratio is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision as to the degree of involvement in individual long term finance mudaraba programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance mudaraba programmes. The research hypothesis therefore is rejected.

#### **8.1.2.b. LONG TERM FINANCE MUDARABA CONTRIBUTION AND SIZE :**

The aim of this section is to present the results of examining the Islamic banks' involvement in individual long term finance mudaraba programmes in relation to their size of capital (in \$m).

It is assumed that the Islamic bank's involvement in individual long term finance mudaraba programmes will depend on its size. The hypothesis therefore is that smaller Islamic banks will be less involved in individual long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 7.02039    DF = 4    P = .135

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.134 hence the independence model that the long term finance mudaraba contribution ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic

bank's size does not seem to influence its decision as to the degree of involvement in individual long term finance mudaraba programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance muudaraba programmes. The research hypothesis therefore is rejected.

### 8.1.3. LONG TERM FINANCE MURABAHA CONTRIBUTION RATIO :

This ratio is the maximum percentage of a finance that an Islamic bank can contribute to individual long term finance murabaha programme.

The aim of this section is to present the results of examining Islamic banks' involvement in individual long term finance murabaha programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its decision to contribute to individual long term finance murabaha programmes.

It is expected that the Islamic banks' long term finance murabaha contribution ratio is influenced by their location. The hypothesis therefore is that Islamic banks-1 are less involved in individual long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .39991    DF = 2    P = .819

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.818 hence the independence model that the long term finance murabaha contribution ratio is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not appear to influence the Islamic bank's decision as to determine the degree of involvement in individual long term finance murabaha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance murabaha programmes. Therefore, the research hypothesis is rejected.

### 8.1.3.a. LONG TERM FINANCE MURABAHA CONTRIBUTION AND AGE :

The aim of this section is to present the results of examining the Islamic banks' long term finance murabaha contribution ratio in relation to their age.

It is assumed that the long term finance murabaha contribution ratio will depend on the Islamic banks' age. The hypothesis therefore is that younger Islamic banks have less experience and therefore will be less involved in individual long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.69989    DF = 6    P = .458

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.457 hence the independence model that the long term finance murabaha contribution ratio is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision as to the degree of involvement in individual long term finance murabaha programme .

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance murabaha programmes. The research hypothesis therefore is rejected.

### 8.1.3.b. LONG TERM FINANCE MURABAHA CONTRIBUTION AND SIZE :

The aim of this section is to present the results of examining the Islamic banks' involvement (as measured in the contribution ratio) in individual long term finance murabaha programmes in relation to their size of capital (in \$m).

It is assumed that an Islamic bank's involvement, (as measured by finance contribution ratio) in individual long term finance murabaha programmes will depend on its size. The hypothesis therefore is that smaller Islamic banks will be less involved in individual long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 8.98950    DF = 4    P = .061

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.06 hence the independence model that the long term finance murabaha contribution ratio is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the Islamic bank's size does not appear to influence its decision as to the degree of involvement in individual long term finance murabaha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance murabaha programmes. The research hypothesis therefore is rejected.

#### **8.1.4. LONG TERM FINANCE MUZARAHA CONTRIBUTION RATIO :**

This ratio is the maximum percentage of a finance that an Islamic bank can contribute to individual long term finance muzaraha programmes.

The aim of this section is to present the results of examining the Islamic banks' long term finance muzaraha contribution ratio in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its involvement in individual long term finance muzaraha programmes.

It is expected that the Islamic banks' involvement in individual long term finance muzaraha programmes is influenced by their location. The hypothesis therefore is that Islamic banks-1 are less involved in individual long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.23725    DF = 2    P = .539

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.538 hence the independence model that contribution to long term finance muzaraha programme is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not appear to influence its decision as to the

degree of involvement in individual long term finance muzaraha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance muzaraha programmes. Therefore, the research hypothesis is rejected.

#### **8.1.4.a. LONG TERM FINANCE MUZARAHA CONTRIBUTION AND AGE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance muzaraha contribution ratio in relation to their age.

It is assumed that the long term finance muzaraha contribution ratio will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks are less experienced and therefore will be less involved in individual long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 8.93343    DF = 6    P = .177

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is high = 0.177 hence the independence model that the Islamic bank's involvement in individual long term finance muzaraha programmes is not influenced by its age is accepted. In other words, the analysis of this model suggests that the Islamic bank's age does not appear to influence its decision as to the degree of involvement in individual long term finance muzaraha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance muzaraha programmes. The research hypothesis therefore is rejected.

#### **8.1.4.b. LONG TERM FINANCE MUZARAHA CONTRIBUTION AND SIZE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance muzaraha contribution ratio in relation to their size of capital (in \$m).

It is assumed that the Islamic bank's involvement in individual long term finance muzaraha



programmes will depend on its size. The hypothesis therefore is that smaller Islamic banks will be less involved in individual long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.77364 DF = 4 P = .217

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.216 hence the independence model that the Islamic banks' involvement in individual long term finance muzaraha programmes is not influenced by their size is accepted. In other words, the analysis of this model suggests that the Islamic bank's size does not appear to influence its decision as to the degree of involvement in individual long term finance muzaraha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance muzaraha programmes. The research hypothesis therefore is rejected.

#### 8.1.5. SUMMARY OF RESULTS :

This section focussed on the analysis of the Islamic banks' involvement (as measured by the contribution ratio) in individual long term finance programmes. Several hypotheses were tested.

The results are presented in table no 8-1.

Model	Hypotheses	Results
Loctn and LTF mush involveme	Loctn influences LTF mush invlv	Rejected
Age and LTF mush involvement	Age influences LTF mush invlv	Rejected
Size and LTF mush involvemen	Size influences LTF mush invlv	Rejected
Loctn and LTF mud involvemen	Loctn influences LTF mud invlv	Rejected
Age and LTF mud involvement	Age influences LTF mud invlv	Rejected
Size and LTF mud involvement	Size influences LTF mud invlv	Rejected
Loctn and LTF mur involvemen	Loctn influences LTF mur invlv	Rejected
Age and LTF mur involvement	Age influences LTF mur invlv	Rejected
Size and LTF mur involvement	Size influences LTF mur invlv	Rejected
Loctn and LTF muz involvemen	Loctn influences LTF muz invlv	Rejected
Age and LTF muz involvement	Age influences LTF muz invlv	Rejected
Size and LTF muz involvement	Size influences LTF muz invlv	Rejected

#### **8.1.6. REMARK :**

Twelve research hypotheses were tested and all of them were rejected. They were theoretically justified in chapter three, section two but it seems, empirically they are not. It seems that Islamic banks are similar in terms of the degree of involvement in long term finance programmes. In other words, location, age and size of Islamic banks appear not to have an impact on their decisions as to the degree in which they are involved in financing a long term programme. In addition, it seems safe to reject the research hypothesis that Islamic banks are more involved in long term finance murabaha than long term finance musharaka, mudaraba and muzaraha programmes.

#### **8.2. TRADITIONAL BANKS' CONTRIBUTION :**

The aim of this section is to focus on the analysis of the contribution ratio to individual long term finance programmes in the traditional banking industry.

This ratio is the maximum percentage that a traditional bank is willing to contribute to individual long term finance programmes by means of long term loans. This ratio shows the degree in which the traditional banks get involved in individual long term finance programmes.

The analysis is performed on the basis of the following hypotheses :

1. traditional banks-1 contribute a lesser proportion to individual long term finance programmes than traditional banks-2.
2. Younger traditional banks contribute a lesser proportion to individual long term finance programmes.
3. Smaller traditional banks contribute a lesser proportion to individual long term finance programmes.

#### **8.2.1. TRADITIONAL BANKS' LONG TERM FINANCE CONTRIBUTION :**

The aim of this section is to examine traditional banks' involvement in individual long term finance programmes in relation to their type (traditional banks-1 and traditional banks-2).

It is expected that a traditional bank's type influences its decision as to the degree of involvement in individual long term finance programmes. Therefore, the hypothesis is that traditional banks-1 are less involved in individual long term finance programmes than traditional banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.85210    DF = 2    P = .240

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is large = 0.240 hence the independence model that the contribution ratio is not influenced by the type (traditional banks-1/traditional banks-2) of a traditional bank is accepted. In other words, the analysis of this model suggests that the type of traditional banks does not appear to influence its decision as to the degree of involvement in individual long term loans programme .

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of the degree in which they involve themselves in individual long term finance programmes. Therefore, the research hypothesis is rejected.

#### **8.2.1.a. TRADITIONAL BANKS' CONTRIBUTION AND AGE :**

The aim of this section is to present the results of examining the traditional banks' contribution ratio by long term loans in relation to their age.

It is assumed that the traditional bank's contribution ratio by long term loans will depend on their age. The hypothesis therefore is that younger traditional banks will be less involved in long term loans (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 9.37173    DF = 6    P = .154

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.153 hence the independence model that the traditional banks' contribution ratio is not influenced by a bank's age is accepted. In other words, the analysis of this model suggests that the traditional bank's age does not appear to influence its decision as to the degree of involvement in a long term finance loans programme .

This analysis leads to the conclusion that younger traditional banks and older traditional banks are similar in terms of the degree in which they involve themselves in individual long term finance programmes. Therefore, the research hypothesis is rejected.

#### 8.2.1.b. TRADITIONAL BANKS' AND SIZE :

The aim of this section is to present the results of examining the traditional banks' involvement in individual long term finance programmes in relation to their size of capital (in \$m).

It is assumed that involvement in individual long term finance programmes will depend on the traditional bank's size of capital. The hypothesis therefore is that smaller traditional banks will be less involved in long term finance programme (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.25367    DF = 4    P = .373

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.372 hence the independence model that the traditional bank involvement in long term loans programme is not influenced by the size of a bank is accepted. In other words,

the analysis of this model suggests that the bank's size does not appear to influence its decision as to the degree of involvement in individual long term finance programmes.

This analysis leads to the conclusion that smaller traditional banks and larger traditional banks are similar in the terms of degree in which they involve themselves in individual long term finance programmes. Therefore, the research hypothesis is rejected.

### 8.2.2. SUMMARY OF RESULTS :

This section focussed on the analysis of the traditional banks' involvement in long term finance programmes. Several hypotheses were tested. Summary of the results are presented in table no 8-2.

Model	Hypotheses	Results
Type and involvement	TBs' type influences LTFP involv	Rejected
Age and involvement	TBs' age influences LTFP involv	Rejected
Size and involvement	TBs' size influences LTFP involv	Rejected

### 8.2.3. REMARK :

Three research hypotheses were tested and all of them were rejected. These hypotheses are related to the ratio contribution of traditional banks to individual long term finance programmes. It appears that type, age and size of traditional banks do not influence the contribution ratio.

### 8.3. DISCUSSION OF THE FINDINGS ON CONTRIBUTION RATIO :

The aim of this section is to focus on the discussion of chapter eight findings. It is discussed under five subsections; 1) comparison; 2) discussion of the first section findings and; 3) discussion of the second section findings.

#### 8.3.1. COMPARISON : ISLAMIC AND TRADITIONAL BANKS INVOLVEMENT :

The aim of this section is to examine the bank's involvement in long term finance programmes in relation to their type (Islamic and traditional banks).

It was expected that type of a bank, that is to say Islamic and traditional banks, will influence the bank's decision at the degree of involvement in long term finance programmes. The hypothesis therefore is that traditional banks are more involved in individual long term finance programmes than Islamic banks (as discussed in chapter three, section two).

Table 8-3 represents a two variable loglinear model : a) bank' type with two categories and; b) the contribution ratio with three categories. This table also shows the banks classified by their observed number and expected number in each contribution ratio category. 79 weighted cases will be used in the analysis.

Table 8-3				
Banks Classified by Their Involvement in long term finance programmes (LTFP)				
Code	cont. ratio	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
IBs				
RATIO	0-30%	2.00 ( 2.53)	7.22 ( 9.13)	-2.8288
RATIO	31-60%	6.00 ( 7.59)	5.29 ( 6.70)	.4163
RATIO	61-100%	11.00 (13.92)	6.49 ( 8.22)	2.5011
TB	2			
RATIO	0-30%	28.00 (35.44)	22.78 (28.84)	2.8288
RATIO	31-60%	16.00 (20.25)	16.71 (21.15)	-.4163
RATIO	61-100%	16.00 (20.25)	20.51 (25.96)	-2.5011
=				
Goodness-of-fit test statistics				
Likelihood Ratio Chi Sq=10.18636 DF=2 P =.006				

The observed significance level associated with Ch Sq is = 0.006 hence the independence model that the contribution ratio is not influenced by a bank's type (traditional banks-1/traditional banks-2) is rejected. In other words, the analysis of this model suggests that a bank's type influences their decision in contributing finance to long term finance programmes.

The foregoing analysis is supported by the high adj resid between the observed and expected numbers of some categories in the model table 8-4 where the observed number of Islamic banks in the first category is less than expected contrary to the first category of traditional banks where the observed number is higher than expected. The absolute value of the adj resid exceeds 2 suggesting that there is an important discrepancy between the observed and expected numbers of the first category of both groups of banks. The analysis of this category for both groups reflects

the fact that higher number of traditional banks than expected prefer to contribute less than 31% to a long term finance programmes whereas the contrary is true for Islamic banks.

The observed number of Islamic banks in the last category is higher than expected with a high discrepancy between the observed and expected numbers expressed by a high positive adj resid = 2.5011. While the observed number of traditional banks is less than expected with low discrepancy between the observed and expected numbers resulted in a low negative adj resid = -2.5011. This category reflects the fact that more than expected of Islamic banks prefer to contribute more than 60% to long term finance programmes whereas the contrary is true for traditional banks.

This analysis leads to the conclusion that Islamic banks are more involved in long term finance programmes by contributing a higher proportion in individual long term finance programmes than traditional banks. Therefore, the research hypothesis is rejected.

### **8.3.2. DISCUSSION OF THE FIRST SECTION'S FINDINGS :**

This chapter focused the analysis on the banks' degree of involvement in individual long term finance programmes in terms of funds invested in individual long term programme. It analysed the long term finance 4M contribution in addition to long term loans to individual long term finance programmes.

The analysis first examined the extent to which a location of an Islamic bank influences its decision as to the degree of involvement in long term finance musharaka, mudaraba, murabaha and muzaraha programmes. There was no statistical evidence to suggest that the location of an Islamic bank influences its decision as to the degree of involvement in long term finance 4M programmes. It was thought that the location of an Islamic banks-2 would give it stronger confidence to be involved to a greater degree in long term finance programmes, as discussed in chapter three, section two but that was not the case. In comparison to Islamic banks-2, it seems that Islamic banks-1 are involved in 4M long term finance programmes at the similar degree.

It was thought that younger Islamic banks are less experienced and therefore they would be less

involved in long term finance 4M programmes but that was not the case. It seems that age does not influence the degree in which an Islamic bank get involved in long term finance 4M programmes. This could be due to the fact that although Islamic banks-2 tend to be older (chapter six, section one) but in terms of applying Islamic finance policies they are similar to Islamic banks-1. In other words, both groups of Islamic banks have similar age in terms of the application of 4M.

It was thought that larger Islamic banks would be involved to a greater degree in long term finance 4M programmes but that was not the case. There were insignificant differences between small and larger Islamic banks in terms of the degree in which Islamic banks involved in long term finance programmes.

### **8.3.3. DISCUSSIONS OF THE SECOND SECTION FINDINGS :**

It was thought that traditional banks-2 would have higher degree of involvement in individual long term finance programmes because traditional banks-2 were originally established to help long term programmes as discussed in chapter three, section two. Surprisingly, there was no difference between the degree of involvement between traditional banks-1 and traditional banks-2 although traditional banks-2 invest higher proportion of their resources in long term finance programmes (as discussed in the first section of chapter seven).

It was thought that younger traditional banks are less experienced and therefore they would be less involved in long term finance programmes but that was not the case. It seems that age does not influence the degree in which a traditional bank get involved in long term finance programmes. There was no evidence to support such a hypothesis.

It was thought that larger traditional banks would be involved to a greater degree in long term finance programmes but that was not the case. There were insignificant differences between small and larger traditional banks in terms of the degree in which banks involved in long term finance programmes.



**CHAPTER NINE**  
**RATE OF RETURN ON LONG TERM FINANCE PROGRAMMES**  
**IN THE BANKING INDUSTRY**

This chapter focuses on the analysis of one aspect of long term finance performance in the Islamic and traditional banking industries. This aspect is the after tax minimum rate of return required in long term finance programmes.

The chapter comprises three sections : 1) required rate of return in the Islamic banking industry; 2) required rate of return in the traditional banking industry and; 3) discussion of the findings.

**9.1. ISLAMIC BANKS' RATE OF RETURN :**

The aim of this section is to focus on the analysis of the minimum after tax rate of return required on long term finance programmes in the Islamic banking industry as specified for long term finance musharaka, mudaraba, murabaha and muzraha, that is 4M programmes.

The analysis is performed on the basis of the following hypotheses :

1. Islamic banks-1 require a higher rate of return on long term finance programmes than Islamic banks-2.
2. There is no difference between younger and older Islamic banks in the required rate of return on long term finance 4M programmes.
3. There is no difference between smaller and larger Islamic banks in the required rate of return on long term finance 4M programmes.

**9.1.1. MUSHARAKA PROGRAMMES' RATE OF RETURN :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance musharaka programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its required rate of return on long term finance musharaka programmes.

It is expected that the Islamic banks' required rate of return on long term finance musharaka

programmes is influenced by their location. The hypothesis therefore is that Islamic banks-1 require a higher rate of return on long term finance musharaka programmes than Islamic banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.39787      DF = 2      P = .302

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.301 hence the independence model that the required rate of return on long term finance musharaka programmes is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not seem to influence the required rate of return on long term finance musharaka programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the required rate of return on long term finance musharaka programmes. Therefore, the research hypothesis is rejected.

#### **9.1.1.a. MUSHARAKA RATE OF RETURN IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance musharaka programmes in relation to their age.

It is assumed that the required rate of return on long term finance musharaka programmes will not depend on the Islamic banks' age. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on long term finance musharaka programmes. (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.90426      DF = 6      P = .434

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.433 hence the independence model that the required rate of return on long term finance musharaka programmes is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests that an Islamic bank's age does not appear to influence its decision to determine the required rate

of return on long term finance musharaka programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on long term finance musharaka programmes. Therefore, the hypothesis is accepted.

#### **9.1.1.b. MUSHARAKA RATE OF RETURN IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance musharaka programmes in relation to their size of capital.

It is assumed that the required rate of return on long term finance musharaka programmes will not depend on the Islamic banks' size. The hypothesis therefore is that smaller Islamic banks and larger Islamic banks require similar rate of return on long term finance musharaka programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 6.26058    DF = 4    P = .181

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.180 hence the independence model that the required rate of return on long term finance musharaka programmes is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that the size of capital of an Islamic bank does not appear to influence its decision to require certain rate of return on long term finance musharaka programmes.

This analysis leads to the conclusion that smaller and larger Islamic banks are similar in terms of the required rate of return on long term finance musharaka programmes. Hence the hypothesis is accepted.

#### **9.1.2. RATE OF RETURN ON LONG TERM FINANCE MUDARABA :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance mudaraba programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its required rate of return on long term finance mudaraba programmes.

It is expected that the Islamic banks' required rate of return on long term finance mudaraba programmes is influenced by their location. The hypothesis therefore is that Islamic banks-1 require a higher rate of return on long term finance mudaraba programmes than Islamic banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.55564    DF = 2    P = .459

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is large = 0.459 hence the independence model that the required rate of return on long term finance mudaraba programmes is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not appear to influence the required rate of return on long term finance mudaraba programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the required rate of return on long term finance mudaraba programmes. Therefore, the research hypothesis is rejected.

#### **2.a. MUDARABA RATE OF RETURN IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance mudaraba programmes in relation to their age.

It is assumed that the required rate of return on long term finance mudaraba programmes will not depend on the Islamic banks' age. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 8.45240    DF = 4    P = .076

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.075 hence the independence model that the required rate of return on long term finance mudaraba programmes is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests

that an Islamic bank's age does not appear to influence its decision to require certain rate of return on long term finance mudaraba programmes.

This analysis leads to the conclusion that younger older Islamic banks are similar in terms of the required rate of return on long term finance mudaraba programmes. Therefore, the research hypothesis is accepted.

#### **9.1.2.b. MUDARABA RATE OF RETURN IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance mudaraba programmes in relation to their size of capital.

It is assumed that the required rate of return on long term finance mudaraba programmes will not depend on the Islamic banks' size. The hypothesis therefore is that smaller Islamic banks and larger Islamic banks are similar in terms of the required rate of return on long term finance mudaraba programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.62538    DF = 4    P = .229

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.228 hence the independence model that the required rate of return on long term finance mudaraba programmes is not influenced by the size of an Islamic bank is accepted. In other words, the analysis of this model suggests that an Islamic bank's size of capital does not appear to influence its decision to require certain rate of return on long term finance mudaraba programmes.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the required rate of return on long term finance mudaraba programmes. Therefore, the research hypothesis is accepted.

#### **9.1.3. RATE OF RETURN LONG TERM FINANCE MURABAHA :**

The aim of this section is to examine the Islamic banks' required rate of return on long term finance murabaha programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its required rate of return on

long term finance murabaha programmes.

It is expected that the Islamic banks' required rate of return on long term finance murabaha programmes is influenced by their location. The hypothesis therefore is that Islamic banks-1 require a higher rate of return on long term finance murabaha programmes than Islamic banks-2 (as explained in chapter three, section two).

Table 9-1 represents a two variable loglinear model. First, location of Islamic banks with two categories (Islamic banks-1/Islamic banks-2). Secondly, the required rate of return on long term finance murabaha programmes ratio variable with three categories. This table shows also Islamic banks classified by their observed number and expected number in each murabaha category. 26 cases were used in the analysis. The other 8 cases were missing data.

Code	return rate	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
IBs-1				
V019MUR	0-15%	10.00 (38.46)	7.19 (27.66)	2.3427
V019MUR	16-30%	6.00 (23.08)	8.50 (32.69)	-2.0612
V019MUR	30-100%	1.00 ( 3.85)	1.31 ( 5.03)	.4760
IBs-2				
V019MUR	0-15%	1.00 ( 3.85)	3.81 (14.64)	-2.3427
V019MUR	16-30%	7.00 (26.92)	4.50 (17.31)	2.0612
V019MUR	30-100%	1.00 ( 3.85)	.69 ( 2.66)	.4760
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square=6.12231 DF=2 P= .047				

The observed significance level associated with Ch Sq is = 0.047 hence the independence model that the required rate of return on long term finance murabaha programmes is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is rejected. In other words, the analysis of this model suggests that the location of an Islamic bank appears to influence its decision as to determine the required rate of return on long term finance murabaha programmes.

Also, the foregoing analysis is supported in the analysis of the discrepancies of the model table 9-1 where the observed numbers of the first category of Islamic banks-1 are higher than expected with high positive adj resid = 2.3427 suggesting that there is an important discrepancy between the observed and expected numbers in the category. In other words, a higher proportion of

Islamic banks-1 than expected require less than 16% as a rate of return on long term finance murabaha programmes. Contrary to this, is the low negative adj resid= -2.3427 of Islamic banks-2 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In other words, a lower proportion than expected of Islamic banks-2 require less than 16% as a rate of return on long term finance murabaha.

The observed numbers of the second category of Islamic banks-1 are lower than expected with low negative adj resid = -2.0612 suggesting that there is an important discrepancy between the observed and expected numbers in the category. In other words, a lower proportion of Islamic banks-1 than expected require 15-30% as a rate of return on long term finance murabaha programmes. Contrary to this, is the high positive adj resid= 2.0612 of Islamic banks-2 suggesting that there is an important discrepancy between the observed and expected numbers of the category. In other words, a higher than expected number of Islamic banks-2 require 15-30% as a rate of return on long term finance murabaha.

This analysis leads to the conclusion that Islamic banks-2 require a higher rate of return on long term finance murabaha programmes than Islamic banks-1 contrary to the hypothesis. Therefore, the research hypothesis is rejected at the 5% significance level.

#### **9.1.3.a. MURABAHA RATE OF RETURN IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance murabaha programmes in relation to their age.

It is assumed that the required rate of return on long term finance murabaha programmes will not depend on the Islamic banks' age. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on the long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 9.47212    DF = 6    P = .149

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.148 hence the independence

model that the required rate of return on long term finance murabaha programmes is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests that an Islamic bank's age does not appear to influence its decision to require certain rate of return on long term finance murabaha programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on long term finance murabaha programmes. Therefore, the research hypothesis is accepted.

#### **9.1.3.b. MURABAHA RATE OF RETURN IN RELATION TO SIZE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance murabaha programmes in relation to their size of capital.

It is assumed that the required rate of return on long term finance murabaha programmes will not depend on the Islamic banks' size. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on the long term finance murabaha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.67785    DF = 4    P = .225

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.224 hence the independence model that the required rate of return on long term finance murabaha programmes is not influenced by the size of an Islamic bank is accepted. In other words, an Islamic bank's size does not appear to influence its decision to require certain rate of return on long term finance murabaha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the required rate of return on long term finance murabaha programmes. Therefore, the research hypothesis is accepted.



#### **9.1.4. RATE OF RETURN ON LONG TERM FINANCE MUZARAHA :**

The aim of this section is to examine the Islamic banks' required rate of return on long term finance muzaraha programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its required rate of return on long term finance muzaraha programmes.

It is expected that the Islamic banks' required rate of return on long term finance muzaraha programmes is influenced by their location. The hypothesis therefore is that Islamic banks-1 require a higher rate of return on long term finance muzaraha programmes than Islamic banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = .48315    DF = 2    P = .785

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.784 hence the independence model that the required rate of return on long term finance muzaraha programmes is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, the analysis of this model suggests that the location does not appear to influence the required rate of return on long term finance muzaraha programmes.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the required rate of return on long term finance muzaraha programmes. Therefore, the research hypothesis is rejected.

#### **9.1.4.a. MUZARAHA RATE OF RETURN IN RELATION TO AGE :**

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance muzaraha programmes in relation to their age.

It is assumed that the required rate of return on long term finance muzaraha programmes will not depend on the Islamic banks' age. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on the long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.17343    DF = 6    P = .903

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.902 hence the independence model that the required rate of return on long term finance muzaraha programmes is not influenced by Islamic banks' age is accepted. In other words, the analysis of this model suggests that the an Islamic bank's age does not appear to influence its decision to require certain rate of return on long term finance muzaraha programmes.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on long term finance muzaraha programmes. Therefore, the research hypothesis is accepted.

#### 9.1.4.b. MUZARAH A RATE OF RETURN IN RELATION TO SIZE :

The aim of this section is to present the results of examining the Islamic banks' required rate of return on long term finance muzaraha in relation to their size of capital.

It is assumed that the required rate of return on long term finance muzaraha programmes will not depend on the Islamic banks' size. The hypothesis therefore is that younger Islamic banks and older Islamic banks are similar in terms of the required rate of return on the long term finance muzaraha programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.94684    DF = 4    P = .567

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.566 hence the independence model that the required rate of return on long term finance muzaraha programmes is not influenced by an Islamic bank's size of capital is accepted. In other words, the analysis of this model suggests that the Islamic banks' size of capital does not appear to influence its decision to require certain rate of return on long term finance muzaraha programmes.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the required rate of return on long term finance muzaraha programmes.

Therefore, the research hypothesis is accepted.

**9.1.5. SUMMARY OF RESULTS :**

This section focussed on the analysis of the rate of return on long term finance 4M programmes in the Islamic banking industry. Several hypotheses were tested. The results are presented in table no 9-2.

Table 9-2		
Summary of results of section 9-1 Location, Age and Size in Relation to The Required Rate of Return on LTF 4M		
Model	Hypotheses	Results
Loctn and LTF mush return	Loctn influences LTF mush return rate	Rejected
Age and LTF mush return	Age does not influence LTF mush return	Accepted
Size and LTF mush return	Size does not influence LTF mush retur	Accepted
Loctn and LTF mud return	Loctn influences LTF mud return rate	Rejected
Age and LTF mud return ra	Age does not influence LTF mud return	Accepted
Size and LTF mud return	Size does not influence LTF mud return	Accepted
Loctn and LTF mur return	Loctn influences LTF mur return rate	opposite
Age and LTF mur return r	Age does not influences LTF mur return	Accepted
Size and LTF mur return	Size does not influence LTF mur return	Accepted
Loctn and LTF muz return	Loctn influences LTF muz return rate	Rejected
Age and LTF muz return r	Age does not influence LTF muz return	Accepted
Size and LTF muz return	Size does not influence LTF muz return	Accepted

**9.1.6. REMARK :**

Twelve research hypotheses were tested and anlyed. These hypotheses are related to the required rate of return on long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes in the Islamic banking industry. It appears that four hypotheses were rejected. These hypotheses related to the location of Islamic banks. It appears that location only influenced the required after tax minimum rate of return on long term finance murabaha programmes in an opposite direction to the hypothesis. It was expected that Islamic banks-1 would require a higher after tax minimum rate of return on long term finance murabaha programmes. It was found that Islamic banks-2 require a higher rate of return on long term finance murabaha programmes quite contrary to the hypothesis.

The other 8 hypotheses were accepted. theses hypotheses are related to the age and size of Islamic banks. It appears that age and size of Islamic banks had no impact on the Islamic banks'

decisions as to determine the required rate of return on long term finance 4M programmes.

## 9.2. TRADITIONAL BANKS RATE OF RETURN :

The aim of this section is to focus the analysis on the required rate of return on long term finance programmes in the traditional banking industry.

This is the required after tax minimum rate of return on long term finance programmes in the traditional banking industry.

The analysis is performed on the basis of the following hypotheses :

1. traditional banks-1 require a higher rate of return on long term finance programmes than traditional banks-2.
2. There is no difference between younger and older traditional banks in the required rate of return on long term finance programmes.
3. There is no difference between smaller and larger traditional banks in the required rate of return on long term finance programmes.

### 9.2.1. RATE OF RETURN ON LONG TERM FINANCE PROGRAMMES :

The aim of this section is to present the results of examining the traditional banks' required rate of return on long term finance programmes in relation to their type (traditional banks-1/traditional banks-2).

It is expected that the required rate of return on long term finance programmes is influenced by the traditional banks' type. Therefore, the hypothesis is that traditional banks-1 require a higher rate of return on long term finance programmes than traditional banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.32401    DF = 2    P = .115

There is insufficient statistical evidence at the 5% level to accept the hypothesis since the observed significance level associated with Ch Sq is larger than 0.114 hence the independence model that the required rate of return on long term finance programmes is not influenced by the

traditional banks' type (traditional banks-1/traditional banks-2) is accepted. In other words, the analysis of this model suggests that the a traditional bank's type does not appear to influence its rate of return on long term finance programmes.

This analysis leads to the conclusion that traditional bank-1 and traditional banks-2 are similar in terms of the required rate of return on long term finance programmes. Therefore, the research hypothesis is rejected.

#### **9.2.1.a. RATE OF RETURN IN RELATION TO AGE :**

The aim of this section is to present the results of examining the traditional banks' required rate of return on long term finance programmes in relation to their age.

It is assumed that the required rate of return on long term finance programmes will not depend on the traditional banks' age. The hypothesis therefore is that younger traditional banks and older traditional banks are similar in terms of the required rate of return on long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.02308    DF = 6    P = .541

There is insufficient statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is higher than 0.540 hence the independence model that the required rate of return on long term finance programmes is not influenced by traditional banks' age is accepted. In other words, the analysis of this model suggests that the traditional bank age does not appear to influence its decision to require certain rate of return on long term finance programmes.

This analysis leads to the conclusion that younger traditional bank and older traditional banks are similar in terms of the required rate of return on long term finance programmes. Therefore, the research hypothesis is accepted.

#### **9.2.1.b. TRADITIONAL BANKS RATE OF RETURN AND SIZE :**

The aim of this section is to present the results of examining the traditional banks' required rate of return on long term finance programmes in relation to their size of capital.

It is assumed that the required rate of return on long term finance programmes will not depend on the traditional banks' size. The hypothesis therefore is that smaller and larger traditional banks are similar in terms of the required rate of return on long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
 Likelihood Ratio Chi Square = 7.78132    DF = 4    P = .100

There is statistical evidence at the 5% level to reject the null hypothesis since the observed significance level associated with Ch Sq is high = 0.1 hence the independence model that the required rate of return on long term finance programmes is not influenced by the size of a traditional bank is accepted. In other words, the analysis of this model suggests that a traditional bank's size does not appear to influence its decision to require certain rate of return on long term finance programmes.

This analysis leads to the conclusion that smaller traditional banks and larger traditional banks are similar in terms of the required rate of return on long term finance programmes. Therefore, the research hypothesis is accepted.

**9.2.2. SUMMARY OF RESULTS :**

This section focussed on the analysis of the rate of return on long term finance programmes in the traditional banking industry. Several hypotheses were tested. The results are presented in table no 9-3.

Table 9-3		
Summary of results of section 9-2 Type, Age and Size of traditional banks (TBs) in relation to the Required rate of return on long term finance programmes (LTFP)		
Model	Hypotheses	Results
TBs' type and LTFP return	Type influences LTFP return	Rejected
Age and LTFP return rate	Age does not influence return	Accepted
Size and LTFP return rate	Size does not influence return	Accepted

**9.2.3. REMARK :**

Three research hypotheses were tested and discussed. These hypotheses are related to the required rate of return on long term finance programmes in relation to type, age and size of

Islamic banks. One hypothesis was rejected and the other two were accepted. It appears that type, age and size of traditional banks had no impact on their decisions as to determine certain rate of return on long term finance programmes.

### **9.3. DISCUSSION OF THE FINDINGS ON RATE OF RETURN :**

The aim of this section is mainly to discuss the findings of this chapter. These findings are discussed as follows : 1) discussion of the first section findings and; 2) discussion of the second section findings. In addition, this section presents first the result of examining the minimum after tax required rate of return in the banks.

#### **9.3.1. COMPARISON : ISLAMIC AND TRADITIONAL BANKS' RATE OF RETURN :**

The aim of this section is to present the results of examining the banks' required rate of return on long term finance programmes in relation to their type (Islamic banks/traditional banks).

It is expected that type of banks, that is Islamic banks/traditional banks, will influence the required rate of return. The hypothesis therefore is that Islamic banks require a higher rate of return on long term finance programmes than traditional banks (as explained in chapter three, section two).

Table 9-4 represents a two variable loglinear model. First, bank' type with two categories . Secondly, the required after tax minimum rate of return on long term finance programmes with three categories . *This table also shows the banks classified by their observed number and expected number in each required after tax minimum rate of return on long term finance programmes* 76 weighted cases will be used in the analysis.

Code	Return ratio	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
<b>IBs</b>				
RATIO	0-15%	8.00 (10.53)	13.00 (17.11)	-2.8495
RATIO	16-30%	9.00 (11.84)	5.25 ( 6.91)	2.2215
RATIO	31-100%	2.00 ( 2.63)	.75 ( .99)	1.7006
<b>TBs</b>				
RATIO	0-15%	44.00 (57.89)	39.00 (51.32)	2.8495
RATIO	16-30%	12.00 (15.79)	15.75 (20.72)	-2.2215
RATIO	31-100%	1.00 ( 1.32)	2.25 ( 2.96)	-1.7006
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square = 8.32412 DF = 2 P = .016				

The observed significance level associated with Ch Sq is = 0.016 hence the independence model that the required after tax minimum rate of return on long term finance programmes is not influenced by a bank's type (traditional banks-1/traditional banks-2) is rejected. In other words, the analysis of this model suggests that a bank's type influences its decisions as to the required after tax minimum rate of return on long term finance programmes.

The foregoing analysis is supported by the high adj resid between the observed and expected numbers of some categories in the model table 9-4 where the observed number of Islamic banks in the first category is less than expected contrary to the first category of traditional banks where the observed number is higher than expected. The numerical value of the adj resid exceeds 2 suggesting that there is an important discrepancy between the observed and expected numbers of the first category of both types of banks. The analysis of this category for both types of banks reflects the fact that higher number of traditional banks than expected require less than 16% as rate of return on long term finance programmes whereas the contrary is true for Islamic banks.

The observed number of Islamic banks in the second category is higher than expected with a high discrepancy between the observed and expected numbers expressed by a high positive adj resid = 2.2215 While the observed number of traditional banks is less than expected with low discrepancy between the observed and expected numbers resulted in a low negative adj resid = -2.2215. This category reflects the fact that more than expected of Islamic banks require 15-30% as rate of return on long term finance programmes whereas the contrary is true for traditional



banks.

This analysis leads to the conclusion that Islamic banks require a higher rate of return on long term finance programmes than traditional banks. Therefore, the research hypothesis is accepted.

### **9.3.2. DISCUSSION OF THE FIRST SECTION FINDINGS :**

The first section of this chapter focused on the analysis of the required rate of return on long term finance 4M programmes in the Islamic banking industry.

It was thought that location would influence an Islamic bank's decision in determining the required rate of return of long term finance 4M programmes and that Islamic banks-1 would require a higher rate of return on long term finance 4M programmes. There was enough evidence to reject these hypotheses except in one case, namely : the required rate of return on long term finance murabaha programmes. Contrary to the hypothesis which was that Islamic banks-1 require a higher rate of return on long term finance murabaha, it was found that a higher number of Islamic banks-2 than Islamic banks-1 require a higher rate of return on long term finance murabaha programmes.

It seems that Islamic banks' age and size do not influence their decisions to determine certain rate of return on long term finance 4M programmes .

### **9.3.3. DISCUSSION OF THE SECOND SECTION FINDINGS :**

The second section of this chapter focused on the analysis of the required rate of return on long term finance programmes in the traditional banking industry. It was thought that traditional banks' type (traditional banks-1/traditional banks-2) would influence their decision in determining the required rate of return on long term finance programmes. There was enough evidence to reject the hypothesis. It was found that type of a traditional bank does not appear to influence its decision to require a particular rate of return on long term finance programmes.

It seems that age and size of traditional banks do not appear to influence their decisions in determining the required rate of return on long term finance programmes.

## CHAPTER TEN

### ISLAMIC FINANCE POLICIES IN THE ISLAMIC BANKING INDUSTRY

The aim of this chapter is to examine the application of Islamic finance policies (IFP) : musharaka, mudaraba, murabaha and muzaraha, that is 4M, to long term finance programmes in the Islamic banking industry from different standpoints. **First**, the question of whether they are used at the same frequency. **Secondly**, the importance of 4M (musharaka, mudaraba, murabaha and muzaraha) to long term finance programmes, in other words, what proportion of long term finance resources is allocated to each one. **Thirdly**, in which programmes of 4M do Islamic banks involve themselves more? **Fourthly**, which programmes of 4M are most important to the bank from the return point of view?

These questions are of especial importance in the Islamic banking literature because they never been empirically examined while enormous theoretical explanations, speculations and arguments have been made about them. Perhaps, one of the most interesting arguments about the 4M is the many questions raised about murabaha. The argument on murabaha has two sides, one for and the other against. The questions normally are concentrated on : 1) whether murabaha, which has some similarities with lending (as discussed in chapter two, section four), is really what Islamic banks should use in their investments and : 2) whether Islamic banks heavily depend on murabaha in their investments.

The question whether murabaha is purely an Islamic finance policy is beyond the scope of this research (as discussed in chapter one, section three). However, there are many opinions which say that there is no doubt that murabaha is an Islamic finance policy and is not against Islam (International Islamic Bank for Investment and Development 1989, pages 118-121[69]).

Therefore, this chapter aims at examining the application and importance of 4M (musharaka, mudaraba, murabaha and muzaraha) policies in long term finance programmes. It is expected that long term finance murabaha will be found to be the backbone of long term finance programmes in the Islamic banking industry (hypothesis no 3.2.2.1). However, as discussed in chapter one, section one and chapter three, section two, the writer (Humod 1987[86], who describes murabaha

in that way, did not specify exactly what the term "backbone" meant neither did he empirically examine it. Moreover, the other writers (Shehattah 1987, p.13[166], Khalifa and Ibrahim 1983, p.108[106] and Alameen 1983, p.6[13]), who stated that murabaha is used heavily by Islamic banks did not specify any quantitative measures for their arguments.

Therefore, an attempt will be made, in this chapter, to examine the importance of the "backbone" of the long term finance programmes in the Islamic banking industry. The analysis will focus on murabaha compared to the other 4M in different aspects; use, resources committed, involvement and return. The analysis of these aspects will determine whether one policy is the most important, that is the backbone, of long term finance programmes in the Islamic banking industry.

The chapter comprises two sections : 1) the applications of the Islamic finance policies to long term finance programmes and; 2) discussion of the findings.

#### **10.1. THE APPLICATION OF 4M :**

The aim of this section is to focus on the analysis of musharaka, mudaraba, murabaha and muzaraha, that is 4M, as applied to long term finance programmes in the Islamic banking industry as follows : 1) 4M use in long term finance programmes; 2) 4M and long term finance ratio; 3) 4M and contribution ratio; 4) 4M and rate of return; 5) summary of results.

##### **10.1.1. THE USE OF 4M :**

The aim of this subsection is to examine the the use of Islamic finance policies in long term finance programmes in the Islamic banking industry.

The hypothesis is that murabaha is the most Islamic finance policies used in long term finance programmes and that musharaka, mudaraba and muzaraha are rarely used in long term finance programmes (as explained in chapter three, section two).

Table 10-1 represents a two variable loglinear model : a) Islamic finance policies, that is 4M, with four categories and; b) the use/non use of the policy with two categories. This table also shows the Islamic finance policies classified by their observed number and expected number in each use/non use category. 136 weighted cases will be used in the analysis.

Table 10-1			
Islamic finance policies (IFP) classified by their use in long term finance programmes (LTFP) in Islamic banks			
Policy	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
Musharaka			
Use	27.00 (19.85)	23.00 (16.91)	1.6932
No use	7.00 ( 5.15)	11.00 ( 8.09)	-1.6932
Mudaraba			
Use	23.00 (16.91)	23.00 (16.91)	.0000
No use	11.00 ( 8.09)	11.00 ( 8.09)	.0000
Murabaha			
Use	28.00 (20.59)	23.00 (16.91)	2.1165
No use	6.00 ( 4.41)	11.00 ( 8.09)	-2.1165
Muzaraha			
Use	14.00 (10.29)	23.00 (16.91)	-3.8097
No use	20.00 (14.71)	11.00 ( 8.09)	3.8097
Goodness-of-fit test statistics			
Likelihood Ratio Chi Square=16.08611 DF=3 P=.001			

The observed significance level associated with Ch Sq is = 0.001 hence the independence model that the finance policies do not influence their use in the long term finance programmes is rejected. In other words, the analysis of this model suggests that type of policy influences its degree of application to long term finance programmes.

The foregoing analysis is supported by the high adj resid between the observed and expected numbers of some categories in the model table 10-1 as follows :

#### 10.1.1.1. MURABAHA :

A higher number of Islamic banks use murabaha than expected resulting in high a positive adj resid = 2.1165 contrary to the no use category where less than expected of Islamic banks avoid using murabaha resulting in a low negative adj resid = - 2.1165. The numerical values of the adj resid exceeds 2 suggesting that there is an important discrepancy between the observed and expected numbers of the two categories. The analysis of murabaha categories (on the basis of the independence model) reflects the fact that a higher number of Islamic banks than expected prefer to employ murabaha in their long term finance programmes.

#### 10.1.1.2. MUZARAHA :

The observed number of Islamic banks that do not use muzaraha is higher than expected resulting in a high positive adj resid =3.8097 contrary to the use of the policy where a lower number of Islamic banks than expected use it resulting in a low negative adj resid = -3.8097. The numerical values of the adj resid exceeds 2 suggesting that there are important discrepancies between the observed and expected numbers of the two categories. The analysis of muzaraha categories (on the basis of the independence model) reflects the fact that a higher number of Islamic banks than expected do not employ muzaraha in their long term finance programmes.

#### 10.1.1.3. SUMMARY :

It seems that :

- a. Less than expected of the Islamic banks do not use murabaha in their long term finance programmes.
- b. More than expected of the Islamic banks prefer to use murabaha in their long term finance programmes.
- c. More than expected of the Islamic banks do not use muzaraha in their long term finance programmes.
- d. Less than expected of the Islamic banks use muzaraha in their long term finance programmes.
- e. Otherwise, there is no significant difference in the employment of the 4M to long term finance programmes in the Ibing industry.

This analysis leads to the conclusion that Islamic banks vary in the employment of 4M in their long term finance programmes. However, it does not seem to be the case that murabaha is the most used finance policy while the other policies are rarely used. Therefore, it seems reasonable to reject the research hypothesis that murabaha is mainly used.

**10.1.2. 4M AND LONG TERM FINANCE RATIO :**

The aim of this section is to examine the long term finance musharaka, mudaraba, murabaha and muzaraha (4M) policies in relation to the long term finance ratio in the Islamic banking industry.

The hypothesis is that Islamic banks invest a very high proportion of long term finance resources in long term finance murabaha programmes and that they invest a very low proportion of long term finance resources in long term finance musharaka, mudaraba and muzaraha programmes (as explained in chapter three, section two).

Table 10-2 represents a two variable loglinear model : a) Islamic finance policies, that is 4M, with four categories and; b) the ratio of long term finance with two categories. This table also shows the Islamic finance policies classified by their observed number and expected number in each ratio category. 92 weighted cases will be used in the analysis.

Table 10-2			
Islamic Finance Policies Classified by Their Annual LTF Ratio			
LTF ratio	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
Musharaka			
00-30%	16.00 (17.39)	12.62 (13.72)	1.5513
31-60%	10.90 (11.85)	9.36 (10.18)	.7399
61-100%	.10 ( .11)	5.02 ( 5.45)	-2.8949
Mudaraba			
00-30%	11.00 (11.96)	10.75 (11.68)	.1206
31-60%	8.00 ( 8.70)	7.97 ( 8.67)	.0126
61-100%	4.00 ( 4.35)	4.28 ( 4.65)	-.1702
Murabaha			
00-30%	6.00 ( 6.52)	13.09 (14.22)	-3.2184
31-60%	10.00 (10.87)	9.71 (10.55)	.1387
61-100%	12.00 (13.04)	5.20 ( 5.66)	3.9583
Muzaraha			
00-30%	10.00 (10.87)	6.54 ( 7.11)	2.0108
31-60%	3.00 ( 3.26)	4.85 ( 5.28)	-1.1309
61-100%	1.00 ( 1.09)	2.60 ( 2.83)	-1.1955
Goodness-of-fit test statistics			
Likelihood Ratio Chi Square=25.11658 DF=6 P=.000			

The observed significance level associated with Ch Sq is very low, about 0.001, hence the independence model that the finance policies do not influence the long term finance ratio is rejected. In other words, the analysis of this model suggests that type of policy influences its

degree of application in long term finance programmes.

The foregoing analysis is supported by the high adj resid between the observed and expected numbers of some categories in the model table 10-2 as follows :

**10.1.2.1. MUSHARAKA :**

The observed number in the third category is less than expected with a low discrepancy between the observed and expected numbers expressed by low negative adj resid = -2.8949. In fact, the analysis of the category suggests that no Islamic bank invest more than 60% of long term finance in musharaka programmes.

**10.1.2.2. MURABAHA :**

The observed number in the first category is less than expected by contrast with the 3rd category where the observed number is higher than expected. The numerical values of the adj resid exceed 2 suggesting that there are important discrepancies between the observed and expected numbers. The analysis of the first category suggests that a higher number than expected of Islamic banks prefer not to allocate less than 30% of their long term finance resources to long term finance murabaha programmes. Also, the analysis of the third category suggests that more than expected of the Islamic banks allocate more than 60% of their resources to long term finance murabaha programmes.

**10.1.2.3. MUZARAHHA :**

The observed number in the first category is higher than expected with a high positive adj resid = 2.0108 suggesting that more than expected of Islamic banks allocate less than 30% of their long term finance resources to long term finance muzaraha programmes.

**10.1.2.4. SUMMARY :**

It seems that :

- a. Islamic banks do not allocate more than 60% of long term finance resources to long term finance musharaka programmes.

- b. Islamic banks prefer not to allocate less than 30% of long term finance resources to long term finance murabaha programmes.
- c. Islamic banks prefer to allocate more than 60% of long term finance resources to long term finance murabaha programmes.
- d. Islamic banks prefer to allocate less than 30% of long term finance resources to long term finance muzaraha programmes.
- e. Otherwise, there is no significant difference in the proportions allocated to long term finance 4M programmes.

This analysis leads to the conclusion that the proportion of long term finance resources allocated to each long term finance 4M programmes vary from one policy to another. However, it does not appear that the proportion of long term finance resources allocated to long term finance murabaha programmes significantly differ from the the proportion allocated to long term finance musharaka and mudaraba programmes. Therefore, the research hypothesis is rejected.

#### **10.1.3. 4M AND INVOLVEMENT :**

The aim of this section is to examine the long term finance musharaka, mudaraba, murabaha and muzaraha policies in relation to the long term finance contribution ratio in the Islamic banking industry.

Murabaha is the easiest and safest form of finance in the Islamic banking industry. therefore, it is expected that Islamic banks would be most involved (measured by the contribution ratio) in individual long term finance murabaha programmes. In other words, the contribution ratio to individual long term finance murabaha programmes is expected to be extremely high compared to the contribution ratio to individual long term finance musharaka, mudaraba and muzaraha programmes.

The hypothesis, therefore, is that Islamic banks are heavily involved in individual long term finance murabaha programmes and that they are only slightly involved in individual long term finance musharaka, mudaraba and muzaraha programmes (as discussed in chapter three, section



two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 5.57693 DF = 6 P = .472

The observed significance level associated with Ch Sq is = 0.472 hence the independence model that the contribution ratio is not influenced by policy applied in long term finance programmes is accepted. In other words, the analysis of this model suggests that the finance policy does not appear to influence the Islamic bank's decision in contributing to long term finance programmes.

This analysis leads to the conclusion that Islamic banks involve themselves in similar degrees in all long term finance 4M programmes. The research hypothesis therefore is rejected.

#### 10.1.4. 4M AND RATE OF RETURN :

The aim of this section is to examine the long term finance 4M programmes in relation to the required rate of return.

It is expected that Islamic banks differ in the required rate of return from one policy to another. The hypothesis therefore is that Islamic banks require a lower rate of return on long term finance murabaha programmes than on the long term finance musharaka, mudaraba and muzaraha programmes (as discussed in hypothesis 3.2.3.5)

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 6.68973 DF = 6 P = .350

The observed significance level associated with Ch Sq is = 0.350 hence the independence model that the finance policies do not influence the required rate of return on the long term finance programmes is accepted. In other words, the analysis of this model suggests that type of policy (4M) appears not to influence the required rate of return on long term finance programmes.

This analysis leads to the conclusion that finance policy has no impact on the Islamic banks' decision as to what minimum after tax rate of return required on long term finance programmes. Therefore, the research hypothesis is rejected.

**10.1.5. SUMMARY OF RESULTS :**

The application	Findings
The use of 4M in LTFP	similar with exceptions
4M and LTF ratio	similar with exceptions
4M and contribution ratio	similar
4M and the required rate of return	similar

**10.2. DISCUSSION OF THE FINDINGS :**

The aim of this section is to focus on the discussion of the findings related to the Islamic finance policies compared to each other as follows : 1) summary of findings of the 1st section; 2) discussion of the findings and; 3) further discussions on the findings.

**10.2.1. SUMMARY OF THE FIRST SECTION FINDINGS :**

**10.2.1.1. THE USE OF 4M :**

It seems that :

- a. Less than the expected proportion of Islamic banks avoid not using murabaha in their long term finance programmes.
- b. More than expected of Islamic banks prefer to use murabaha in their long term finance programmes.
- c. More than expected of Islamic banks do not use muzaraha in their long term finance programmes.
- d. Less than expected of Islamic banks use muzaraha in their long term finance programmes.
- e. Otherwise, there is no significant difference in the employment of 4M in the long term finance programmes in the Islamic banking industry.

#### **10.2.1.2. 4M AND LONG TERM FINANCE RATIO :**

It seems that :

- a. Islamic banks do not allocate more than 60% of long term finance resources to long term finance musharaka programme.
- b. Islamic banks prefer not to allocate less than 30% of long term finance resources to long term finance murabaha programme.
- c. Islamic banks prefer to allocate more than 60% of long term finance resources to long term finance murabaha programme.
- d. Islamic banks prefer to allocate less than 30% of long term finance resources to long term finance muzaraha programme.
- e. Otherwise, there is no significant difference in the the proportion of long term finance resources allocated to each one of long term finance 4M programmes in the Islamic banking industry.

#### **10.2.1.3. 4M AND INVOLVEMENT :**

It seems that there is no significant difference in the degree of involvement (measured by the contribution ratio) in which Islamic banks involve themselves in long term finance 4M programmes.

#### **10.2.1.4. 4M AND RATE OF RETURN :**

It seems that there is no significant difference in the required rate of return of return on long term finance 4M programmes.

#### **10.2.2. DISCUSSION OF THE FINDINGS :**

The main hypothesis addressed in this chapter is that whether there is a finance policy, that is murabaha, stands on its own as the backbone of long term finance programmes in the Islamic banking industry. The term "backbone" was first used (as discussed earlier in this chapter) with no quantitative definition. So, the interpretation of "backbone" is that it is the most important in

terms of use, resources, involvement and rate of return. However, it is perhaps more reasonable before drawing any conclusion to discuss the findings. The discussion will be in the context of the nature, principles and society of applications of Islamic finance policies as discussed earlier (chapter two, section six).

It seems that the employment, resources committed, involvement and the required rate of return on the long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes in the Islamic banking industry is similar except in the following :

#### **10.2.2.1. MUSHARAKA :**

It was found that Islamic banks do not allocate more than 60% of long term finance resources to long term finance musharaka programmes. This could be due to the nature of musharaka programme where an Islamic bank is a partner (as discussed in chapter two) and where it pays only a small share of the project finance. In other words, an Islamic bank might be involved in many individual long term finance musharaka projects but still these do not in total exceed 60% of its long term finance resources.

#### **10.2.2.2. MURABAHA :**

It appears that Islamic banks avoid not using murabaha in their long term finance programmes and they also avoid allocating less than 30% of their long term finance resources to long term finance murabaha programmes. In other words, it appears that murabaha is more common in the application to long term finance programmes and that Islamic banks prefer allocate more than 60% of their long term finance resources to long term finance murabaha programmes. This could be due to the fact that murabaha is easier to conduct and safer for the bank than the other finance policies, in terms of getting the finance back. Perhaps one important factor also leading to these results is the fact that unlike the other finance policies, murabaha is suitable for domestic use (as discussed in chapter two, sections four and six), murabaha can be used to buy domestic products for ordinary people. That make it more popular in use than the other finance policies.

### 10.2.2.3. MUZARAHHA :

It appears that muzaraha is the least applied in long term finance programmes in the Islamic banking industry and that the proportion of long term finance resources allocated to it is also the least amongst the 4M programmes. The main reason could be that muzaraha is only suitable to the agricultural projects and that most of Islamic banks are located in the urban societies. Also, the nature of the policy requires the bank either to provide the land or to provide the finance and labour which seems difficult to achieve. This reason also may help to explain why some Islamic banks use musharaka rather than muzaraha for agricultural projects (as discussed in chapter two).

### 10.2.3. FURTHER DISCUSSION :

The main hypothesis in this chapter is that murabaha is the backbone, in other words, the most important method for financing long term programmes in the Islamic banking industry. As discussed earlier, there is no empirical evidence to determine what "backbone" means. Therefore, this research investigated murabaha from different standpoints in an attempt to determine the importance of each one of the 4M in the long term finance programmes. The 4M were examined in 4 measures namely; 4M use and long term finance ratio, 4M and contribution ratio and 4M and rate of return.

It seems that the applications of musharaka, mudaraba and murabaha to long term finance programmes in the Islamic banking industry and the proportion of long term finance resources allocated to each one of them are similar. The involvement (measured by the contribution ratio) and the required rate on long term finance 4M programmes are also similar.

These findings were supported by an Islamic bank manager : he said that Islamic banks to increase the applications of musharaka and mudaraba in their finance programmes.

These findings by no means confirm that one of 4M policies is more important than the others. Consequently, it seems safe to reject the research hypothesis that murabaha is the backbone of long term finance programmes in the Islamic banking industry.

For further discussion on the Islamic finance policies, see chapter twelve, sections three and four.

## CHAPTER ELEVEN

### LONG TERM FINANCE PROGRAMMES SUCCESS IN THE BANKING INDUSTRY

This chapter focuses on the analysis of one aspect of long term finance performance in the two banking industries. This aspect is the success rate of long term finance programmes.

The chapter comprises two sections : 1) long term finance programmes success rate and; 2) discussion of the findings.

#### 11.1. BANKS' SUCCESS RATE :

The banks were asked (chapter four, section two) to answer a question related to the success rate of their long term finance programmes. For Islamic banks the question did not specify the 4M. So this ratio is the ratio of successful long term finance programmes to total long term finance programmes, in other words, long term finance programmes which have generated the desired results.

The analysis is conducted on the basis of the following hypotheses :

- a. Islamic banks will achieve poorer results from their long term finance programmes than traditional banks.
- b. Islamic banks-1 will achieve poorer results from their long term finance programmes than Islamic banks-2.
- c. Traditional banks-2 will achieve better results from their long term finance programmes than traditional banks-1.
- d. Younger banks/Islamic banks/traditional banks will achieve poorer results from their long term finance programmes than older banks/Islamic banks/traditional banks.
- e. Smaller banks/Islamic banks/traditional banks will achieve poorer results from their long term finance programmes than larger banks/Islamic banks/traditional banks.

### 11.1.1. BANKS' SUCCESS RATE :

The aim of this section is to present the results of examining the banks' long term finance programmes success rate in relation to their type, that is Islamic banks/traditional banks.

It is expected that a bank's long term finance programmes success rate is influenced by its type. The hypothesis is therefore that Islamic banks will achieve poorer results from their long term finance programmes than traditional banks (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 2.11546    DF = 2    P = .347

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.346 hence the independence model that the long term finance programmes success rate is not influenced by the size of a bank is accepted. In other words, the analysis of this model suggests that the success rate of long term finance programmes does not appear to depend on banks' type.

This analysis leads to the conclusion that Islamic banks and traditional banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

#### 11.1.1.a. BANKS' SUCCESS RATE AND AGE :

The aim of this section is to present the results of examining the banks' long term finance programmes success rate in relation to their age. It is assumed that the success rate will depend on the banks' age. The hypothesis therefore is that younger banks will be less successful in their long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 6.06732    DF = 6    P = .416

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.415 hence the independence model that the success rate is not influenced by banks' age is accepted. In other words, the analysis of this model suggests that age does not appear to influence the success of long term finance programmes in the banking industry.

This analysis leads to the conclusion that younger and older banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

### 11.1.1.b. BANKS' SUCCESS RATE AND SIZE :

The aim of this section is to examine the banks' success rate in relation to their size of capital. It is assumed that success rate will depend on the bank's size. The hypothesis therefore is that smaller banks will be less successful in their long term finance programmes (as explained in chapter three, section two).

Table number 11-1 represents a two variable loglinear model. First, size of banks' capital with three categories. Secondly, banks long term finance success rate with three categories. This table also shows the banks classified by their observed number and expected number in each rate of success in long term finance programmes category. 82 cases were used in the analysis. The other 25 cases were missing data.

Code	succe rate	OBS. count & PCT.	EXP. count & PCT.	Adj. Resid.
9ACAPN	\$0 - 50m			
V025SUCC	\$0-40%m	9.00 (10.98)	6.40 ( 7.81)	1.5001
V025SUCC	\$41-80%m	10.00 (12.20)	12.38 (15.10)	-1.1105
V025SUCC	\$81-100%m	16.00 (19.51)	16.22 (19.78)	-.0983
V9ACAPN	\$50-750m			
V025SUCC	\$0-40%m	6.00 ( 7.32)	5.67 ( 6.92)	.1940
V025SUCC	\$41-80%m	9.00 (10.98)	10.96 (13.37)	-.9353
V025SUCC	\$81-100%m	16.00 (19.51)	14.37 (17.52)	.7463
V9ACAPN	\$750m-up			
V025SUCC	\$0-40%m	.00 ( .00)	2.93 ( 3.57)	-2.1096
V025SUCC	\$41-80%m	10.00 (12.20)	5.66 ( 6.90)	2.5304
V025SUCC	\$81-100%m	6.00 ( 7.32)	7.41 ( 9.04)	-.7905
Goodness-of-fit test statistics				
Likelihood Ratio Chi Square=10.84773 DF=4 P=.028				

The observed significance level associated with Ch Sq is = 0.028 hence the independence model that the success rate is not influenced by the size of a bank is rejected. In other words, the analysis of this model suggests that size of a bank appears to influence the success rate of long term finance programmes in the banking industry.



Also, the foregoing analysis is supported in the analysis of the discrepancies of largest banks, that is \$750m- up category in the model table 10-1 where the observed number of banks with capital higher than \$750m is less than expected with low negative adj resid = -2.1096 suggesting that there is an important discrepancy between the expected number and actual number in the category. In other words, less than expected number of banks with capital more than \$750m achieved less than 40% as a success rate of their long term finance programmes. That is contrary to the 41-80% category where the observed number is higher than the expected number with high positive adj resid = 2.1096 suggesting that there is an important discrepancy between the actual number and expected number in the category. The analysis of this category suggests that higher number than expected with capital more than \$750m achieve 41-80% as their success rate in long term finance programmes.

This analysis leads to the general conclusion that larger banks are more successful in their long term finance programmes than smaller banks. The research hypothesis therefore, is accepted at the 5% significance level.

#### 11.1.2. ISLAMIC BANKS' SUCCESS RATE :

The aim of this section is to present the results of examining Islamic banks' success rate in long term finance programmes in relation to their location (Islamic banks-1/Islamic banks-2). In other words, to see whether an Islamic bank's location influences its success rate in long term finance programmes.

It is expected that Islamic banks' success rate is influenced by their location. The hypothesis therefore is that Islamic banks-1 will achieve poorer results from their long term finance programmes than Islamic banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 1.42589    DF = 2    P = .490

The observed significance level associated with Ch Sq is larger than 0.489 hence the independence model that success rate is not influenced by the location (Islamic banks-1/Islamic banks-2) of an Islamic bank is accepted. In other words, location does not appear to influence the

success rate of long term finance programmes in the Islamic banking industry.

This analysis leads to the conclusion that Islamic banks-1 and Islamic banks-2 are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

#### **11.1.2.a. ISLAMIC BANKS' SUCCESS RATE AND AGE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance programmes success rate in relation to their age.

It is assumed that the long term finance programmes success rate will depend on the Islamic bank's age. The hypothesis therefore is that younger Islamic banks will be less successful in their long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 3.64541    DF = 6    P = .725

There is insufficient statistical evidence at level equal or below 0.05 to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.724 hence the independence model that the long term finance programmes success rate is not influenced by Islamic banks' age is accepted. In other words, age does not appear to influence the success rate of long term finance programmes in the Islamic banking industry.

This analysis leads to the conclusion that younger Islamic banks and older Islamic banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

#### **11.1.2.b. ISLAMIC BANKS' SUCCESS RATE AND SIZE :**

The aim of this section is to present the results of examining the Islamic banks' long term finance programmes success rate in relation to their size of capital.

It is assumed that long term finance programmes success rate will depend on the Islamic bank's size. The hypothesis therefore is that smaller Islamic banks will achieve poorer results from their long term finance programmes than larger Islamic banks (as explained in chapter three, section

two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 3.31062 DF = 4 P = .507

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.5 hence the independence model that the long term finance programmes success rate is not influenced by the size of an Islamic bank is accepted. In other words, size does not appear to influence the success rate of long term finance programmes in the traditional banking industry.

This analysis leads to the conclusion that smaller Islamic banks and larger Islamic banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

### 11.1.3. TRADITIONAL BANKS' SUCCESS RATE :

The aim of this section is to examine traditional banks' long term finance programmes success rate in relation to their type (traditional banks-1/traditional banks-2).

It is expected that a traditional bank's type influences its success rate. Therefore, the hypothesis is that traditional banks-1 achieve poorer results from their long term finance programmes than traditional banks-2 (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 4.41841 DF = 2 P = .110

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.10 hence the independence model that the success rate is not influenced by the type (traditional banks-1 and or traditional banks-2) of a traditional bank is accepted. In other words, the analysis of this model suggests that traditional banks' type does not influence their success rate in long term finance programmes. traditional banks-1 are less successful in their long term finance programmes

This analysis leads to the conclusion that traditional banks-1 and traditional banks-2 are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

### 11.1.3.a. TRADITIONAL BANKS' SUCCESS RATE AND AGE :

The aim of this section is to present the results of examining the traditional banks' success rate in long term finance programmes in relation to their age.

It is assumed that long term finance programmes success ratio will depend on the traditional bank's age. The hypothesis therefore is that younger traditional banks will be less successful in their long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 9.33046 DF = 6 P = .156

There is insufficient statistical evidence at the 5% level to support the hypothesis since the observed significance level associated with Ch Sq is larger than 0.155 hence the independence model that the long term finance programmes success ratio is not influenced by traditional banks' age is accepted. In other words, age does not appear to influence the success of long term finance programmes in the traditional banking industry.

This analysis leads to the conclusion that younger traditional banks and older traditional banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

### 11.1.3.b. TRADITIONAL BANKS' SUCCESS RATE AND SIZE :

The aim of this section is to present the results of examining the traditional banks' success rate in long term finance programmes in relation to their size of capital.

It is assumed that success rate will depend on the traditional bank's size. The hypothesis therefore is that smaller traditional banks will be less success in their long term finance programmes (as explained in chapter three, section two).

Goodness-of-fit test statistics  
Likelihood Ratio Chi Square = 7.36170 DF = 4 P = .118

There is insufficient statistical evidence at level equal or below 0.05 to support the hypothesis since the observed significance level associated with Ch Sq is higher than 0.117 hence the independence model that the long term finance programmes success ratio is not influenced by the size of a traditional bank is accepted. In other words, size does not appear to influence the

success rate of long term finance programmes in the traditional banking industry.

This analysis leads to the conclusion that smaller traditional banks and larger traditional banks are similar in terms of the success rate of long term finance programmes. Therefore, the research hypothesis is rejected.

#### 11.1.4. SUMMARY OF RESULTS :

This chapter focussed on the analysis of the success rate of long term finance programmes in the banking industry. Several hypotheses were tested. The results are presented in table no 11-2.

Table 11-2		
Summary of results of section 11-1		
Model	Hypotheses	Results
Success and banks' type	Banks' type influences success	Rejected
Success and IBs' location	IBs' location influences success	Rejected
Success and TBs' type	TBs' type influences success	Rejected
Success and bank' age	Banks' age influences success	Rejected
Success and IBs' age	IBs' age influences success	Rejected
Success and TBs' age	TBs' age influences success	Rejected
Success and banks' size	Banks' size influences success	Rejected
Success and IBs' size	IBs' size influences success	Accepted
Success and TBs' size	TBs' size influences success	Rejected

#### 11.1.5. REMARK :

Nine research hypotheses were tested and analysed in this chapter. These hypotheses are related to the success rate of long term finance programmes in the banking industry. All hypotheses, except for one, were rejected. It seems that type of a bank (Islamic banks/traditional banks), Location of Islamic banks (Islamic banks-1/Islamic banks-2), type of traditional banks (traditional banks-1/traditional banks-2), age of banks/Islamic banks/traditional banks, size of Islamic banks and traditional banks do not influence the success rate of long term finance programmes.

It was found that size of banks influenced the success rate of long term finance programmes. It seems that larger banks achieved a higher rate of success in their long term finance programmes than smaller banks.

## 11.2. DISCUSSION OF THE FINDINGS ON SUCCESS RATE :

The aim of this chapter was to focus on the analysis of the success rate of long term finance programmes in the banking industry.

It was thought that type of banks (Islamic banks/traditional banks) would influence the success rate of long term finance programmes. The hypothesis was based on that Islamic banks are younger and less experienced than traditional banks (as discussed in chapter three, section two). But it seems that was not the case. On the contrary, it seems that Islamic banks and traditional banks are similar in terms of the success rate of long term finance programmes.

It was expected that Islamic banks-2 enjoy the facilities of Islamic economies and therefore would be more successful in their long term finance programmes. But that was not the case. On the contrary, it seems that Islamic banks-1 and Islamic banks-2 are similar in terms of the success rate of long term finance programmes.

It was expected that traditional banks-2 are better prepared to conduct long term finance programmes and that may lead to a higher rate of success in long term finance programmes. But that was not the case. On the contrary, it seems that traditional banks-1 and traditional banks-2 are similar in terms of the success rate of long term finance programmes.

The success rate of long term finance programmes was examine in relation to banks'/Islamic banks'/traditional banks' characteristics, namely : age and size. There was no case in which age seemed to influence the success rate in banks/Islamic banks/traditional banks. In other words, it appears that banks'/Islamic banks'/traditional banks' success rate in long term finance programmes do not depend on their age.

Also, size of Islamic banks and traditional banks appear not to have any impact on their success rate of long term finance programmes. Only, size of banks, appear to influence the success rate of long term finance programmes. It seems that larger banks achieve a higher rate of success in long term finance programmes than smaller banks.

## CHAPTER TWELVE

### CONCLUSIONS

The aim of this chapter is to focus on the discussion of the conclusions of this research study. This chapter comprises five sections : 1) introduction; 2) summary of the findings; 3) discussion of the findings; 4) further discussion of the findings and; 5) recommendations for further research.

#### **12.1. INTRODUCTION :**

The aim of this section is to focus on the discussion of : 1) the development of the research theory; 2) the research hypotheses tested; 3) the statistics employed.

##### **12.1.1. DEVELOPMENT OF RESEARCH THEORY :**

The researcher's interest in banking started some ten years ago by questioning the practices of banking industry. Formally however, this research investigation started by conducting a comprehensive literature review (presented in chapter one and chapter two) from which a number of research questions were raised (presented in chapter three, section one).

The literature review and the research questions lead to the development of the research hypotheses which were presented in chapter three, section two.

Careful consideration, consultation of various research methodology references and examination of previous surveys lead to the design of the research instrument, that is the questionnaire (presented in chapter four, sections one, two and three).

The approach employed to describe the methodology of this research involved the full description of the research investigation. Problems, choices, alternatives, decisions all were discussed and presented in chapter four.

The data collected for the research investigation were checked for consistency and validity (presented in chapter five). Only, valid and consistent answers were considered at the analysis stage.

Also, the collected data were tested for bias. The test suggested that data were not biased

(presented in chapter five).

#### **12.1.2. RESEARCH HYPOTHESIS TESTED :**

This thesis examined five major sets of research hypotheses related to :

- a. Type of banks, that is Islamic banks, and traditional banks.
- b. Location of Islamic banks, that is banks located in countries Islamised their economies (Islamic banks-2) and the rest of Islamic banks (Islamic banks-1).
- c. Type of traditional banks, that is commercial banks (traditional banks-1) and specialised banks (traditional banks-2).
- d. Performance of banks in relation to their age.
- e. Performance of banks in relation to their size.

The results of the analysis are presented in chapters six, seven, eight, nine, ten and eleven.

#### **12.1.4. STATISTICS USED :**

The loglinear models were employed in the analysis of this research investigation data. Loglinear models provide a powerful methodology for analysing such data. Gilbert described the loglinear approach as :

"A better approach to examining data is to draw on one's prior theoretical knowledge and insight about the social processes which might be involved, and to test whether the data shows the consequences of those processes. In other words, we use a theoretical model of what we think might be happening to guide the search for patterns in data. A model is a theory or set of hypotheses which attempt to explain the connections and interrelationships between social phenomena. Models are made up of concepts and relationships between concepts" (1981, p.3[77]).

Loglinear models require the researcher to determine exactly what the hypotheses are. This must be done before the start of analysis.



SPSSX was employed to conduct the tests for the data quality and for the analysis of the data, that is the application of loglinear models to the analysis of the data of this research project.

## **12.2. THE FINDINGS OF THIS RESEARCH :**

The aim of this section is present the research findings. These findings are based on the data collected from the banks (discussed in chapter four and five) and the statistical examination of it, that is the findings are based on the empirical evidence. In other words, the results presented in this section are based on theoretical, empirical and scientific research. The theoretical basis was discussed and fully developed in chapter three, section two in the form of research hypotheses which were drawn from the comprehensive research literature review presented in chapter one and two. The empirical aspect of the research was based on the data collected from the banks. Finally, the scientific aspect of the research was based on sound research and statistical methodology as discussed in chapters four and five. In addition, the loglinear model statistical technique was applied in the statistical analysis of the data.

The section presents the research findings as follows : 1) type of banks (Islamic banks and traditional banks); 2) location of Islamic banks (Islamic banks-1 and Islamic banks-2); 3) Islamic finance policies; 4) type of traditional banks (traditional banks-1 and traditional banks-2); 5) the long term finance programmes in relation to age; 6) long term finance programmes in relation to size.

### **12.2.1. FINDINGS RELATED TO TYPE OF BANKS :**

These findings are related to type of bank, that is Islamic bank/traditional bank.

#### **12.2.1.1. AGE :**

It was expected in hypothesis no. 3.2.1.1 that the Islamic banks are younger than traditional banks. There was statistical support (chapter six, section one) for the hypothesis. In fact, it seems that there was a significant difference between the Islamic banks' age and the traditional banks age. It appears that Islamic banks are generally younger than traditional banks, in line with the hypothesis.

#### **12.2.1.2. SIZE OF TOTAL ASSETS :**

It was expected in hypothesis no. 3.2.1.2 that the Islamic banks are smaller in terms of the size of total assets than the traditional banks. There was no significant difference between the Islamic banks and the traditional banks in terms of the size of total assets.

#### **12.2.1.3. CAPITAL IN 1991 :**

It was expected in hypothesis no. 3.2.1.3 that the Islamic banks' size of capital would be smaller than the traditional banks'. There was no significant difference between the Islamic banks and the traditional banks in terms of the size of capital.

#### **12.2.1.4. ANNUAL GROWTH OF TOTAL ASSETS (BETWEEN 1986 AND 1991) :**

It was expected in hypothesis no. 3.2.1.4 that the Islamic banks would achieve a higher rate of annual growth in their total assets than the traditional banks. There was statistical support (chapter six, section four) for the hypothesis. In fact, it seems that there was a significant difference between the Islamic banks and the traditional banks in terms of the annual total assets growth. It appears that the Islamic banks grew at a faster rate than the traditional banks, in line with the hypothesis.

#### **12.2.1.5. OWNERSHIP :**

It was expected in hypothesis no. 3.2.1.9 that there would be no difference between the Islamic banks and the traditional banks in terms of the proportion of public sector ownership. There was statistical support (chapter six, section five) for the hypothesis. In fact, it seems that there was no significant difference between the Islamic banks and the traditional banks in terms of the ownership in line with the hypothesis.

#### **12.2.1.6. LONG TERM FINANCE RATIO :**

It was expected in hypothesis no. 3.2.1.5 that the Islamic banks would allocate a lesser proportion of their assets to long term finance programmes long term finance programmes than the traditional banks but there was no significant difference between the Islamic banks and the traditional banks in terms of allocating resources to long term finance programmes long term

finance programmes.

#### **12.2.1.7. INVOLVEMENT IN LONG TERM FINANCE PROGRAMMES :**

It was expected in hypothesis no. 3.2.1.6 that the Islamic banks would be less involved in individual long term finance programmes than the traditional banks. But it seems that Islamic banks are more involved in long term finance programmes (chapter eight, section three) (in opposite line with the hypothesis).

#### **12.2.1.8. RATE OF RETURN :**

It was expected in hypothesis no. 3.2.1.7 that the Islamic banks require a higher rate of return than traditional banks. It was found that the hypothesis is supported (chapter nine, section three). In fact, it seems that Islamic banks require a higher rate of return on their long term finance programmes than traditional banks (in line with the hypothesis).

#### **12.2.1.9. LONG TERM FINANCE PROGRAMMES SUCCESS RATE :**

It was expected in hypothesis no. 3.2.1.8 that the Islamic banks would achieve poorer results from their long term finance programmes than the traditional banks. In fact, it seems that there was no significant difference between the Islamic banks and the traditional banks in terms of the success rate of long term finance programmes.

#### **12.2.1.10. SUMMARY OF FINDINGS :**

To summarise these findings, Islamic banks are similar to traditional banks in terms of :

- a. Size of total assets (not in line with the hypothesis).
- b. Size of capital (not in line with the hypothesis).
- c. Ownership (in line with the hypothesis).
- d. Long term finance ratio, that is the proportion of resources allocated to long term finance programmes (not in line with the hypothesis).
- f. The success rate of long term finance programmes (not in line with the hypothesis).

Islamic banks are dissimilar to traditional banks in terms of :

- a. Age (Islamic banks are younger, in line with the hypothesis).
- b. Annual growth (Islamic banks grew at a faster rate in the period 1986-1991, in line with the hypothesis).
- c. Involvement in long term finance programmes (not in line with the hypothesis).
- d. Rate of return on long term finance programmes (in line with the hypothesis).

**12.2.1.11. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to type of bank, that is Islamic banks and traditional banks. Table 12-1 shows a summary of the results.

Table 12-1	
Summary of findings related to type of bank, that is IBs/TBs	
Hypotheses	Findings
a. Rejected hypotheses IBs' total asset is smaller IBs' capital is smaller IBs allocate less to LTFP IBs are less success in LTFP IBs are less involved in LTFP IBs require higher rate of return	similar similar similar similar
b. Accepted hypotheses IBs are younger IBs grew at a faster rate IBs are similar in ownership	similar
Total hypotheses examined	9
Total rejected hypotheses	6
Total accepted hypotheses	3
Total similar findings	5
Total dissimilar findings	4

**12.2.2. FINDINGS RELATED TO THE LOCATION OF ISLAMIC BANKS :**

These findings are related to the Islamic banks' location, that is Islamic banks-1 and Islamic banks-2.

**12.2.2.1. AGE :**

It was expected in hypothesis no. 3.2.2.1 that there is no difference between Islamic banks-1 and Islamic banks-2 in terms of age. But the hypothesis was not supported, (chapter six, section one). In fact, it seems that there is a significant difference between the Islamic banks-1 and the Islamic

banks-2 in terms of age. It was found that the Islamic banks-1 are younger than the Islamic banks-2.

#### **12.2.2.2. ISLAMIC BANKS-2's AGE :**

These results however raised another question as to why this difference in age exists while it is well known in the literature that Islamic banks started in the 1970's (hypothesis no 3.2.2.2). The results of this investigation (presented in chapter six, section one) is that Islamic banks-2 include many converted banks and these converted banks were established earlier than the 1970's. All converted banks started to operate on an Islamic basis in the 1970's.

#### **12.2.2.3. SIZE OF TOTAL ASSETS :**

It was expected in hypothesis no. 3.2.2.3 that the Islamic banks-1 would be larger in terms of total assets than the Islamic banks-2. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of size of total assets.

#### **12.2.2.4. CAPITAL IN 1991 :**

It was expected in hypothesis no. 3.2.2.4 that the Islamic banks-1 would be larger in terms of capital than the Islamic banks-2. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of capital.

#### **12.2.2.5. ANNUAL GROWTH OF TOTAL ASSETS (BETWEEN 1986 AND 1991) :**

It was expected in hypothesis no. 3.2.2.5 that the Islamic banks-1 would achieve a higher rate of growth in their total assets during the period between 1986 and 1991 than the Islamic banks-2. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of the growth of their total assets.

#### **12.2.2.6. OWNERSHIP :**

It was expected in hypothesis no. 3.2.2.6 that a higher proportion of the Islamic banks-2 would be owned by public sector than the Islamic banks-1. The hypothesis was supported (chapter five, section six). In fact, it seems that there was significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of the ownership. It appears that a higher proportion of Islamic

banks-2 are owned by public sector as expected.

**12.2.2.7. LONG TERM FINANCE RATIO :**

It was expected in hypothesis no 3.2.2.7 that Islamic banks-1 would allocate a lesser proportion of their resources to long term finance programmes than Islamic banks-2. There was no significant difference between Islamic banks-1 and Islamic banks-2 in terms of allocating resources to long term finance programmes.

**12.2.2.8. LONG TERM FINANCE MUSHARAKA, MUDARABA AND MUZARAHA :**

It was expected in hypothesis no 3.2.2.8 that Islamic banks-1 would allocate a lesser proportion of their long term finance resources to long term finance musharaka, mudaraba and muzaraha programmes than Islamic banks-2. There was no significant difference between Islamic banks-1 and Islamic banks-2 in terms of allocating long term finance resources to long term finance musharaka, mudaraba and muzaraha programmes.

**12.2.2.9. LONG TERM FINANCE MURABAHA RATIO :**

It was expected in hypothesis no 3.2.2.9 that the Islamic banks-2 would allocate a lesser proportion of their long term finance resources to long term finance murabaha programmes than the Islamic banks-1. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of allocating long term finance resources to long term finance murabaha programmes.

**12.2.2.10. INVOLVEMENT IN LONG TERM FINANCE 4M PROGRAMMES :**

It was expected in hypothesis no 3.2.2.10 that the Islamic banks-1 would be more involved in individual long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes than the Islamic banks-2. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of the degree in which they are involved in individual long term finance 4M programmes.

#### **12.2.2.11. RATE OF RETURN ON LONG TERM FINANCE 4M PROGRAMMES :**

It was expected in hypothesis no 3.2.2.11 that the Islamic banks-1 would require a higher rate of return on their long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes than the Islamic banks-2. There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of the required rate of return on long term finance musharaka, mudaraba and muzaraha programmes. But it seems that Islamic banks-2 require a higher rate of return on long term finance murabaha programmes than Islamic banks-1 in contrast to the hypothesis.

#### **12.2.2.12. LONG TERM FINANCE PROGRAMMES SUCCESS RATE :**

It was expected in hypothesis no 3.2.2.12 that Islamic banks-1 would achieve poorer results in their long term finance programmes, in other words, they would be less successful than the Islamic banks-2. The hypothesis was not supported (chapter eleven). There was no significant difference between the Islamic banks-1 and the Islamic banks-2 in terms of the success rate of long term finance programmes.

#### **12.2.2.13. SUMMARY OF FINDINGS :**

To summarise these findings, Islamic banks-1 and Islamic banks-2 are similar in terms of :

- a. Size of total assets (not in line with the hypothesis).
- b. Size of capital (not in line with the hypothesis).
- c. Annual growth of total assets (not in line with the hypothesis).
- d. Long term finance ratio (not in line with the hypothesis).
- e. Long term finance musharaka, mudaraba and muzaraha (not in line with the hypothesis).
- f. Long term finance murabaha (not in line with the hypothesis).
- g. Involvement in long term finance 4M programmes (not in line with the hypothesis).
- h. Rate of return on long term finance musharaka, mudaraba and muzaraha programmes (not in line with the hypothesis).

- i. Success rate of long term finance programmes (not in line with the hypothesis).

Islamic banks-1 are dissimilar to Islamic banks-2 in terms of :

- a. Islamic banks-1 are generally younger than Islamic banks-2 (not in line with the hypothesis).

Establishment date (higher number of Islamic banks-2 are converted and were established before 1970's, in line with the hypothesis).

- b. Ownership (higher number of Islamic banks-2 are public owned, in line with the hypothesis).
- c. Rate of return on long term finance murabaha (Islamic banks-2 require a higher rate of return on long term finance murabaha than Islamic banks-1, opposite direction to the hypothesis).



**12.2.2.14. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to location of Islamic banks, that is Islamic banks-1 and Islamic banks-2. Table 12-2 shows a summary of the results.

Table 12-2	
Summary of findings related to location of Islamic banks, ie IBs-1/IBs-2	
Hypotheses	Findings
<b>a. Rejected hypotheses</b>	
IBs-1's total asset is larger	similar
IBs-1's capital is larger	similar
IBs-1's growth is higher	similar
IBs-1 allocate less to LTFP	similar
IBs-1 allocate less to LTFP mush	similar
IBs-1 allocate less to LTFP mud	similar
IBs-1 allocate less to LTFP muz	similar
IBs-1 allocate higher to LTFP mur	similar
IBs-1 involve less in LTFP mush	similar
IBs-1 involve less in LTFP mud	similar
IBs-1 involve less in LTFP mur	similar
IBs-1 involve less in LTFP muz	similar
IBs-1 require higher return on LTF mush	similar
IBs-1 require higher return on LTF mud	similar
IBs-1 require higher return on LTF muz	similar
IBs-1 are less successful in LTFP	similar
IBs-1 require higher return on LTF mur	opposite
<b>b. Accepted hypotheses</b>	
IBs-1's converted banks are less	
IBs-1's public owned banks are less	
Total hypotheses examined	19
Total rejected hypotheses	17
Total accepted hypotheses	2
Total similar findings	16
Total dissimilar findings	3

**12.2.3. FINDINGS RELATED TO ISLAMIC FINANCE POLICIES :**

These findings are related to the four Islamic finance policies, that is musharaka, mudaraba, murabaha and muzaraha (4M).

**12.2.3.1. EMPLOYMENT OF 4M (musharaka, mudaraba, murabaha, muzaraha) :**

It was expected in hypothesis no 3.2.3.2 that the Islamic banks would employ murabaha in most of their long term finance programmes as some writers considered it the backbone of finance in the Islamic banking industry. In fact, it seems that murabaha is more popular in long term finance

programmes in Islamic banking than the other 4M. But the other three finance policies, especially musharaka and mudaraba, are employed to a substantial degree by the Islamic banks. It seems that there were no significant differences between the employment of musharaka, mudaraba and murabaha policies (chapter ten, section one). But it seems that muzaraha is the least applied to long term finance programmes in the Islamic banking industry.

#### **12.2.3.2. LONG TERM FINANCE AND 4M (musharaka, mudaraba, murabaha, muzaraha) :**

It is expected in hypothesis no. 3.2.3.3 that the Islamic banks invest a higher proportion of their long term finance resources in long term finance murabaha programmes than long term finance musharaka, mudaraba, and muzaraha programmes. It seems that the proportion of long term finance resources allocated to long term finance murabaha programmes is high but also the long term finance resources invested in long term finance musharaka and mudaraba programmes are substantial. But it seems that the long term finance resources allocated to long term finance muzaraha programmes is the least amongst the long term finance 4M programmes.

#### **12.2.3.3. INVOLVEMENT IN 4M (musharaka, mudaraba, murabaha, muzaraha) :**

It was expected in hypothesis no 3.2.3.4 that the Islamic banks would involve themselves heavily in individual long term finance murabaha programmes. In fact, it seems that the Islamic banks are similarly involved in individual long term finance 4M programmes (chapter ten, section one).

#### **12.2.3.4. RATE OF RETURN LONG TERM FINANCE 4M PROGRAMMES :**

It was expected in hypothesis no 3.2.3.5 that the Islamic banks would require a lower rate of return on long term finance murabaha programmes. It seems that the required rate of return on long term finance 4M programmes is similar (chapter ten, section one).

#### **12.2.3.5. BACKBONE OF LONG TERM FINANCE PROGRAMMES IN ISLAMIC BANKING :**

It was expected in hypothesis no 3.2.3.1 that murabaha will be the backbone of long term finance programmes in the Islamic banking industry. The findings of this research suggest that murabaha is probably more applied to long term finance programmes but musharaka and mudaraba are also

applied to a substantial degree. It seems that muzaraha is the least applied to long term finance programmes. Moreover, the involvement and the required rate of return on long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes are similar. It seems reasonable to suggest that murabaha alone is not the backbone "the most important" Islamic finance policy and that musharaka and mudaraba are as important as murabaha to the long term finance programmes in the Islamic banking industry.

#### 12.2.3.6. SUMMARY OF FINDINGS :

To summarise these findings :

- a. Musharaka, mudaraba and muzaraha are as important as murabaha in long term finance programmes in the Islamic banking industry and no one policy stands in its own as the backbone of long term finance programmes in the Islamic banking industry (not in line with the hypothesis).
- b. Murabaha is more used in long term finance programmes but musharaka and mudaraba are used in a substantial degree. Muzaraha is the least used (not in line with the hypothesis).
- c. Long term finance resources allocated to long term finance murabaha programmes are high but the long term finance resources allocated to long term finance musharaka and mudaraba programmes are substantial. long term finance resources allocated to long term finance muzaraha is the least (not in line with the hypothesis).
- d. Islamic banks are involved in long term finance 4M programmes in similar degree like (not in line with the hypothesis).
- e. Islamic banks require a similar rate of return on long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes (not in line with hypothesis).

**12.2.3.7. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to Islamic finance policies. Table 12-3 shows a summary of the results.

Table 12-3	
Summary of findings related to IFP	
Hypotheses	Findings
a. Rejected hypotheses Murabaha is the backbone of LTFP Murabaha is the most uses in LTFP Resources to LTF mur is the highest IBs involved heavily in individ mur require less return on LTF mur	mud and mush are also important mud and mush are also similarly used resources to mud and mush are substantial also involve in mush, mud and muz return is similar on 4M
Total hypotheses examined	5
Total rejected hypotheses	5
Total similar importance, use, resources, involvement and the required return	5

**12.2.4. FINDINGS RELATED TO TYPE OF TRADITIONAL BANKS :**

These findings are related to type of bank in the traditional banking industry, that is traditional banks-1 and traditional banks-2.

**12.2.4.1. AGE :**

It was expected in hypothesis no 3.2.4.1 that the traditional banks-1 would be older than the traditional banks-2. There was statistical support for the hypothesis (chapter six, section one). In fact, it seems that there are significant differences between the traditional banks-1 and the traditional banks-2 in terms of age. It seems that traditional banks-2 are younger than traditional banks-1, in line with the hypothesis.

**12.2.4.2. SIZE OF TOTAL ASSETS :**

It was expected in hypothesis no 3.2.4.2 that the traditional banks-1 would be larger in terms of total assets than the traditional banks-2. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the size of total assets.

#### **12.2.4.3. CAPITAL IN 1991 :**

It was expected in hypothesis no 3.2.4.3 that the traditional banks-1 would be larger in their capital than the traditional banks-2. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the size of capital.

#### **12.2.4.4. ANNUAL GROWTH OF TOTAL ASSETS (BETWEEN 1986 AND 1991) :**

It was expected in hypothesis no 3.2.4.4 that the traditional banks-1 would achieve a lower rate of growth in their total assets than the traditional banks-2 between the period 1986-1991. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the rate of growth in total assets.

#### **12.2.4.5. OWNERSHIP :**

It was expected in hypothesis no 3.2.4.5 that a higher proportion of the traditional banks-1 would be privately owned than the traditional banks-2. There were no significant differences between the traditional banks-1 and the traditional banks-2 in terms of ownership.

#### **12.2.4.6. LONG TERM FINANCE RATIO :**

It was expected in hypothesis no 3.2.4.6 that the traditional banks-1 would allocate a lesser proportion of their resources to long term finance programmes than the traditional banks-2. There was statistical support for the hypothesis (chapter seven, section one), It appears that the traditional banks-2 invest a higher proportion of their resources in long term finance programmes, in line with the hypothesis.

#### **12.2.4.7. INVOLVEMENT IN LONG TERM FINANCE PROGRAMMES :**

It was expected in hypothesis no 3.2.4.7 that the traditional banks-1 would be less involved in individual long term finance programmes than the traditional banks-2. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the degree which both types are involved in individual long term finance programmes.

**12.2.4.8. RATE OF RETURN ON LONG TERM FINANCE PROGRAMMES :**

It was expected in hypothesis no 3.2.4.8 that the traditional banks-1 would require a higher rate of return on long term finance programmes than the traditional banks-2. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the required rate of return.

**12.2.4.9. LONG TERM FINANCE PROGRAMMES SUCCESS RATE :**

It was expected in hypothesis no 3.2.4.9 that the traditional banks-1 would achieve poorer results from long term finance programmes, in other words, would be less successful than the traditional banks-2. There was no significant difference between the traditional banks-1 and the traditional banks-2 in terms of the success rate of long term finance programmes

**12.2.4.10. SUMMARY OF FINDINGS :**

To summarise these findings, traditional banks-1 are similar to traditional banks-2 in terms of :

- a. Size of total assets (not in line with the hypothesis).
- b. Size of Capital (not in line with the hypothesis).
- c. Ownership (not in line with the hypothesis).
- d. Involvement in long term finance programmes (not in line with the hypothesis).
- e. Rate of return on long term finance programmes (not in line with the hypothesis).
- f. Success rate of long term finance programmes (not in line with the hypothesis).

Traditional banks-1 are dissimilar to traditional banks-2 in terms of :

- a. Age (traditional banks-2 are younger, in line with the hypothesis).
- b. long term finance ratio (traditional banks-2 invest higher proportion of their resources in long term finance programmes, in line with the hypothesis).

**12.2.4.11. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to type of traditional banks, that is traditional banks-1 and traditional banks-2. Table 12-4 shows a summary of the results.

Table 12-4	
Summary of findings related to type of TBs, ie TBs-1/TBs-2	
Hypotheses	Findings
a. Rejected hypotheses	
TBs-1's total asset is larger	similar
TBs-1's capital is larger	similar
TBs-1's growth is higher	similar
TBs-1's public owned banks are less	similar
TBs-1 are less involved in LTFP	similar
TBs-1 require higher return on LTFP	similar
TBs-1 are less successful in LTFP	similar
b. Accepted hypotheses	
TBs-1 are older	
TBs-1 allocate less to LTFP	
Total hypotheses examined	9
Total rejected hypotheses	7
Total accepted hypotheses	2
Total similar findings	7
Total dissimilar findings	2

**12.2.5. FINDINGS RELATED TO LONG TERM FINANCE PROGRAMMES IN RELATION TO AGE :**

These findings are related to banks' age in relation to long term finance performance in banks/Islamic banks/traditional banks.

**12.2.5.1. LONG TERM FINANCE RATIO AND AGE :**

It was expected in hypothesis no 3.2.5.1 that younger banks/Islamic banks/traditional banks would allocate a lesser proportion of their resources to long term finance programmes than older banks/Islamic banks/traditional banks. There was no significant difference between younger banks/Islamic banks/traditional banks and larger banks/Islamic banks/traditional banks in terms of the proportion of resources allocated to long term finance programmes.

**12.2.5.2. LONG TERM FINANCE RATIO 4M AND AGE :**

It was expected in hypothesis no 3.2.5.2 that younger Islamic banks would allocate a lesser proportion of their resources to long term finance musharaka, mudaraba and muzaraha programmes than older Islamic banks. There was no significant difference between younger Islamic banks and older Islamic banks in terms of the proportion of resources allocated to long term finance musharaka, mudaraba and muzaraha programmes.

**12.2.5.3. LONG TERM FINANCE MURABAHA RATIO AND AGE :**

It was expected in hypothesis no 3.2.5.3 that younger Islamic banks would allocate a higher proportion of their resources to long term finance murabaha programmes than older Islamic banks. There was no significant difference between younger Islamic banks and older Islamic banks in terms of the proportion of resources allocated to long term finance murabaha programmes.

**12.2.5.4. LONG TERM FINANCE 4M INVOLVEMENT AND AGE :**

It was expected in hypothesis no 3.2.5.4 that younger Islamic banks would be less involved in individual long term finance musharaka, mudaraba, murabaha and muzaraha programmes than older Islamic banks. There was no significant difference between younger Islamic banks and older Islamic banks in terms of the the involvement in individual long term finance musharaka, mudaraba, murabaha and muzaraha programmes.

**12.2.5.5. TRADITIONAL BANKS' INVOLVEMENT AND AGE :**

It was expected in hypothesis no 3.2.5.5 that younger traditional banks would be less involved in individual long term finance programmes than older traditional banks. There was no significant difference between younger traditional banks and older traditional banks in terms of the the involvement in individual long term finance programmes.

**12.2.5.6. RATE OF RETURN ON 4M AND AGE:**

It was expected in hypothesis no 3.2.5.6 that there would be no difference in the required rate of return between younger and older Islamic banks on long term finance musharaka, mudaraba,



murabaha and muzaraha programmes. There was statistical support for the hypothesis (chapter nine, section one). In fact, it seems that there was no significant difference between younger Islamic banks and older Islamic banks in terms of the required rate of return on long term finance musharaka, mudaraba, murabaha and muzaraha programmes, in line with the hypothesis.

#### **12.2.5.7. RATE OF RETURN ON LONG TERM FINANCE PROGRAMMES AND AGE :**

It was expected in hypothesis no 3.2.5.7 that there would be no difference in the required rate of return between younger and older traditional banks on long term finance programmes. There was statistical support for the hypothesis (chapter nine, section one). In fact, it seems that there was no significant difference between younger traditional banks and older traditional banks in terms of the required rate of return on long term finance programmes, in line with the hypothesis.

#### **12.2.5.8. SUCCESS RATE OF LONG TERM FINANCE PROGRAMMES AND AGE :**

It was expected in hypothesis no 3.2.5.8 that younger banks/Islamic banks/traditional banks would be less successful in long term finance programmes than older banks/Islamic banks/traditional banks. There was no significant difference between younger banks/Islamic banks/traditional banks and larger banks/Islamic banks/traditional banks in terms of the success rate of long term finance programmes.

#### **12.2.5.9. SUMMARY OF FINDINGS :**

To summarise these findings, younger banks/Islamic banks/traditional banks are similar to older banks/Islamic banks/traditional banks in all factors examined in this research investigation.

Hypotheses related to age in relation to long term finance ratio, long term finance 4M (musharaka, mudarabaha, murabaha and muzaraha) ratio, long term finance 4M involvement, traditional banks' involvement, and success rate of long term finance programmes were rejected. Hypotheses related to age in relation to the required rate of return on 4M (musharaka, mudarabaha, murabaha and muzaraha) in the Islamic banking industry and on long term finance programmes in the traditional banking industry were accepted.

**12.2.5.10. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to age of banks/Islamic banks/traditional banks. Table 12-5 shows a summary of the results.

Table 12-5	
Summary of findings related to age of banks/Islamic banks/traditional banks	
Hypotheses	Findings
<b>a. Rejected hypotheses</b>	
Younger banks allocate less to LTFP	similar
Younger IBs allocate less to LTFP	similar
Younger TBs allocate less to LTFP	similar
Younger IBs allocate less to LTFP mush	similar
Younger IBs allocate less to LTFP mud	similar
Younger IBs allocate higher to LTFP mur	similar
Younger IBs allocate less to LTFP muz	similar
Younger IBs are less involved in LTFP mush	similar
Younger IBs are less involved in LTFP mud	similar
Younger IBs are less involved in LTFP mur	similar
Younger IBs are less involved in LTFP muz	similar
Younger banks are less successful in LTFP	similar
Younger IBs are less successful in LTFP	similar
Younger TBs are less successful in LTFP	similar
<b>b. Accepted hypotheses</b>	
Younger IBs require similar return on LTFP mush	similar
Younger IBs require similar return on LTFP mud	similar
Younger IBs require similar return on LTFP mur	similar
Younger IBs require similar return on LTFP muz	similar
Younger TBs require similar return on LTFP	similar
Total hypotheses examined	19
Total rejected hypotheses	14
Total accepted hypotheses	5
Total similar findings	19
Total dissimilar findings	0

**12.2.6. FINDINGS RELATED TO LONG TERM FINANCE PROGRAMMES IN RELATION TO SIZE :**

These findings are related to banks' size in relation to long term finance programmes in banks/Islamic banks/traditional banks.

**12.2.6.1. LONG TERM FINANCE RATIO and SIZE :**

It was expected in hypothesis no 3.2.6.1 that small banks/Islamic banks/traditional banks would allocate a lesser proportion of their resources to long term finance programmes than larger

banks/Islamic banks/traditional banks. There was no significant difference between small banks/Islamic banks/traditional banks and larger banks/Islamic banks/traditional banks in terms of the proportion of resources allocated to long term finance programmes.

**12.2.6.2. LONG TERM FINANCE MUSHARAKA, MUDARABA AND MUZARAHA AND SIZE :**

It was expected in hypothesis no 3.2.6.2 that smaller Islamic banks would allocate a lesser proportion of their resources to long term finance musharaka, mudaraba and muzaraha than larger Islamic banks. There was no significant difference between smaller Islamic banks and larger Islamic banks in terms of the proportion of resources allocated to long term finance musharaka, mudaraba and muzaraha programmes.

**12.2.6.3. LONG TERM FINANCE MURABAHA RATIO AND SIZE :**

It was expected in hypothesis no 3.2.6.3 that smaller Islamic banks would allocate a higher proportion of their resources to long term finance murabaha programmes than larger Islamic banks. There was no significant difference between smaller Islamic banks and larger Islamic banks in terms of the proportion of resources allocated to long term finance murabaha programmes.

**12.2.6.4. LONG TERM FINANCE 4M INVOLVEMENT AND SIZE :**

It was expected in hypothesis no 3.2.6.4 that smaller Islamic banks would be less involved in long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) programmes than larger Islamic banks. There was no significant difference between smaller Islamic banks and larger Islamic banks in terms of the degree in which smaller and larger Islamic banks are involved in individual long term finance 4M programmes.

**12.2.6.5. TRADITIONAL BANKS' INVOLVEMENT AND SIZE :**

It was expected in hypothesis no 3.2.6.5 that smaller traditional banks would be less involved in long term finance programmes than larger traditional banks. There was no significant difference between smaller traditional banks and larger traditional banks in terms of the degree in which

smaller and larger traditional banks involved in individual long term finance programmes.

#### **12.2.6.6. RATE OF RETURN AND SIZE :**

It was expected in hypothesis no 3.2.6.6 that there would be no difference in the required rate of return between smaller and larger Islamic banks on long term finance musharaka, mudaraba, murabaha and muzaraha programmes. There was statistical support for the hypothesis (chapter nine, section one). In fact, it seems that there was no significant difference between smaller Islamic banks and larger Islamic banks in terms of the required rate of return on long term finance musharaka, mudaraba, murabaha and muzaraha programmes in line with the hypothesis.

#### **12.2.6.7. TRADITIONAL BANKS' RATE OF RETURN AND SIZE :**

It was expected in hypothesis no 3.2.6.7 that there would be no difference in the required rate of return between smaller traditional banks and larger traditional banks. There was statistical support to the hypothesis (chapter nine). In fact, it seems that there were no significant differences between smaller traditional banks and larger traditional banks in terms of the the required rate of return, in line with the hypothesis.

#### **12.2.6.8. SUCCESS OF LONG TERM FINANCE PROGRAMMES AND SIZE :**

It was expected in hypothesis no 3.2.6.8 that smaller Islamic banks/traditional banks would be less successful in long term finance programmes than larger Islamic banks/traditional banks. There was no significant difference between smaller Islamic banks/traditional banks and larger Islamic banks/traditional banks in terms of the success rate of long term finance programmes.

It was expected in hypothesis no 3.2.6.8 that larger banks would be more successful in their long term finance programmes smaller banks. There was evidence to support the hypothesis. It seems that larger banks achieve a higher rate of success in long term finance programmes than smaller banks.

#### **12.2.6.9. SUMMARY OF FINDINGS :**

To summarise these findings, smaller banks/Islamic banks/traditional banks are similar to larger banks/Islamic banks/traditional banks in all factors examined in this research investigation.

Hypotheses related to size of capital in relation to long term finance ratio, long term finance 4M (musharaka, mudaraba, murabaha and muzaraha) ratio, long term finance 4M involvement, and traditional banks' involvement, were rejected. Hypotheses related size of capital age in relation to the required rate of return on 4M in the Islamic banking industry and on long term finance programmes in the traditional banking industry and success rate of long term finance programmes were accepted.

**12.2.6.10. TABLE SUMMARY OF FINDINGS :**

Several hypotheses related to size of banks/Islamic banks/traditional banks. Table 12-6 shows a summary of the results.

Table 12-6	
Summary of findings related to size of banks/IBs/TBs	
Hypotheses	Findings
<b>a. Rejected hypotheses</b>	
Smaller banks allocate less to LTFP	similar
Smaller IBs allocate less to LTFP	similar
Smaller TBs allocate less to LTFP	similar
Smaller IBs allocate less to LTFP mush	similar
Smaller IBs allocate less to LTFP mud	similar
Smaller IBs allocate higher to LTFP mur	similar
Smaller IBs allocate less to LTFP muz	similar
Smaller IBs are less involved in LTFP mush	similar
Smaller IBs are less involved in LTFP mud	similar
Smaller IBs are less involved in LTFP mur	similar
Smaller IBs are less involved in LTFP muz	similar
Smaller IBs are less successful in LTFP	similar
Smaller TBs are less successful in LTFP	similar
<b>b. Accepted hypotheses</b>	
Smaller IBs require similar return on LTFP mush	similar
Smaller IBs require similar return on LTFP mud	similar
Smaller IBs require similar return on LTFP mur	similar
Smaller IBs require similar return on LTFP muz	similar
Smaller TBs require similar return on LTFP	similar
Smaller banks are less successful in LTFP	
Total hypotheses examined	19
Total rejected hypotheses	13
Total accepted hypotheses	6
Total similar findings	18
Total dissimilar findings	1

### **12.3. DISCUSSION OF THE FINDINGS :**

The discussion of the research findings in this section is complementary to the discussions under the remarks at the end of each section and the discussion section at the end of each chapter.

The aim of this section is to discuss the research findings related to : 1) type of banks (Islamic banks/traditional banks); 2) location of Islamic banks (Islamic banks-1/Islamic banks-2); 3) Islamic finance policies (IFP); 4) type of traditional banks (traditional banks-1/traditional banks-2) and; 5) long term finance programmes in relation to banks' age and size.

#### **12.3.1. DISCUSSION OF FINDINGS RELATED TO TYPE OF BANKS :**

Bearing in mind the basic difference (discussed in chapter one, section three and chapter two, section one) between the Islamic banks which operate according to Islamic Sharia, that is halal, and traditional banks which operate on the basis of interest, that is haram. It is not the aim of this research to compare halal with haram. For further discussion on the difference between Islamic banks and traditional banks, see Shehatta (1981, pages 22-30[164] and 1984, pages 23-28[165]), Alnajjar (1987, pages 3-13[40]), Alanani (1982, pages 40-61[14]), Almasri (1982, pages p.12-16[33]) and Algazali (1988, pages p35-45[16]). The discussion in this section, however, will be based on the empirical research findings and the research hypotheses.

##### **12.3.1.1. SIZE :**

Unexpectedly, it was found that Islamic banks are similar to traditional banks in terms of total assets (chapter six, section two) and capital (chapter six, section three). Three reasons may help to explain these results :

- a. As Alnajjar (1984, page 6[41]) discussed the reason behind the success of Islamic banking. The religious motivation encouraged people to look for halal return and invest their savings in Islamic banks.
- b. Alhelo (1986[24]), (as discussed in chapter three, section two and chapter six section 4) indicated that the Islamic banks were flooded by inflow funds in their early years and this probably resulted in higher rate of growth of Islamic banks than of traditional banks'.

Consequently the Islamic banks became as large as traditional banks in a short period.

- c. It was found that the growth rate of Islamic banks in the period 1986 to 1991 was higher than traditional banks (see chapter six, section four).

#### **12.3.1.2. INVOLVEMENT AND LONG TERM FINANCE PROGRAMMES :**

Some writers (chapter one, section one and chapter three, section two) mentioned the lack of long term finance programmes in the Islamic banking industry. Moreover, Islamic banks face many problems in an interest based economy (as discussed in hypothesis no 3.2.1.5), in addition, there is a high risk involved in the Islamic finance policies. Consequently, it was expected that Islamic banks would be more cautious in their long term finance programmes, in other words, they would allocate a lesser proportion of their resources to long term finance programmes and they would be less involved in long term finance programmes.

This thesis empirically examined the proportion of resources invested in long term finance programmes and the degree in which banks get involved in long term finance programmes in both banking industries. It seems safe to suggest that by comparison to the traditional banking industry, which is older and well established, and within a short period of existence Islamic banks have begun to allocate a high percentage of their resources to long term finance programmes similar to traditional banks'. Moreover, they are more involved in long term finance programmes than traditional banks, in other words, they contribute a higher proportion of finance to individual long term finance programmes.

It seems that the observations (Kabbara 1988, page 30[100], Kassem p.6[104] and Shallaha 1991[162]) which lead to the conclusions that Islamic banks lack long term finance programmes :

- a. Were related to the early stage of the Islamic banking industry, that is the 1970's and early 1980's.
- b. Were not empirically examined in the same degree as the findings of the current research.
- c. Were not empirically compared to another banking industry. Contrary to the findings of this research which compares The Islamic banks' proportion of resources allocated to long



term finance programmes to another banking industry namely; the traditional banking industry. For further discussion on involvement see section 4 of the current chapter.

### **12.3.1.3. SUCCESS RATE :**

In terms of the success rate of long term finance programmes (chapter eleven), it is found empirically that Islamic banks are similar to the older industry, that is traditional banking, In fact, this finding is a surprising one, because the Islamic banking started with no prior experience in applying Islamic finance policies, as discussed in chapter one. In an interview with an Islamic bank manager he said :

"It seemed at the beginning of the bank's operation that more than half of our long term finance programmes were failures, but now (June 1992) more than 80% of our long term finance programmes are successful".

The following reasons may help to explain why and how Islamic banks achieve similar results to the much older industry :

- a. The employment of already trained and experienced managers from the traditional banking industry.
- b. Islamic banks realised the importance of training and sharing experience. These factors are reflected in the many training programmes and conferences on Islamic banking activities.
- c. Islamic banking was pioneered by people who strongly believe in the idea. In addition it had support from some influential people and some governments (discussed in chapter one, section one). Such people and governments are needed for the system to survive and succeed.
- e. Perhaps, equally important, the support of ordinary people; depositors, investors (entrepreneurs) and staff working in the Islamic banking industry looking for halal services help to lessen the many problems that result from operating in interest based economies.

#### 12.3.1.4. RATE OF RETURN :

It was expected in hypothesis no. 3.2.1.7, that there is a difference between Islamic banks and traditional banks in the required rate of return on long term finance programmes. The following factors may shed light on why should Islamic banks require a higher rate of return than traditional banks on long term finance programmes :

- a. Islam does not prohibit high profits as far as they are made from Islamically permitted operations, that is to say they are halal (as discussed in chapter two, section one).
- b. The Islamic banks employ riskier policies in long term finance programmes than traditional banks. For example, in musharaka, mudaraba, muzaraha the bank loses its finance if the programme fails. The safest Islamic finance policy in terms of getting the finance back is murabaha, Islamic banks cannot ask for compensation if the client has a genuine financial crisis leading to late payment of his/her debts. In addition, some Islamic finance policies, for example, mudaraba requires complete trust (as discussed in chapter two, sections three and six), and that implies a high element of risk. All these factors may make the required rate of return in the Islamic banking industry higher than the traditional banking's.
- c. As discussed earlier (in chapter two), profit or loss resulting from any operation is shared between the owners of an Islamic bank, depositors and investors. In other words, a higher rate of return serves all parties involved in the operation.

However, it was found that there is a significant difference in the required rate of return on long term finance 4M programmes and the required rate of return on traditional banks' long term finance programmes. It seems that Islamic banks require a higher rate of return on long term finance programmes than traditional banks in line with the hypothesis.

The question, however, remains whether there is really a difference in the required rate of return? or whether it is a result of a difference in the calculation of the rate of return. To explain this point, considerations must be given to capital costs traditional banks pay interest on their funds which is considered as part of the total project costs and deducted from the gross return whereas Islamic banks do not pay interest on their funds, in other words, cost of capital in the Islamic

banking is lower than traditional banks' (Salama 1984, page 59[156]). In fact, Islamic banks accept the fund deposits on the basis of mudaraba, that is profit/loss sharing (as explained in chapter two). Not including a cost of capital in the project cost makes the rate of return higher. However, these conclusions need further empirical accounting research in both the Islamic banking and traditional banking industries.

### **12.3.2. DISCUSSION ON THE FINDINGS RELATED TO ISLAMIC BANKS' LOCATION :**

The aim of this section is to focus on the discussion of the findings related to Islamic banks' location, that is Islamic banks-1 and Islamic banks-2.

The research investigation was restricted to a limited set of practical and factual aspects of banking namely : banks' age, size, growth, ownership, long term finance resources, involvement, rate of return and success of long term finance programmes.

#### **12.3.2.2. SIZE :**

It was thought that Islamic banks-1 would be larger than Islamic banks-2 in terms of total assets (hypothesis no. 3.2.2.3) and capital (hypothesis 3.2.2.4). The expectation was based on the following factors :

- a. The survey discussed earlier in chapter three, section two, suggested that the biggest Islamic banks are in Islamic banks-1.
- b. Some countries of Islamic banks-2 have been affected by long wars.
- c. Some of the Islamic banks-1's countries are rich because of oil money.

However, it was found that there was no significant difference between Islamic banks-1 and Islamic banks-2 in terms of size. These results could be due to the following factors :

- a. The survey which suggested that the biggest Islamic banks are from Islamic banks-1 (Almajalla Journal 1990, pages 34-47[32], discussed in chapter three, section two) did not include any bank from Iran. The Iranian banks, compared with the rest of Islamic banks

have a large size of capital and assets. That could be the main reason as to why there was no basic difference in the size of Islamic banks-1 and Islamic banks-2. Islamic banks-2 include banks from Iran.

- b. The transfer of funds between Arab and muslim countries appears also to make it possible that Islamic banks-1 and Islamic banks-2 are similar in terms of size.

#### **12.3.2.2. OWNERSHIP :**

It seems that Islamic governments took an active role in establishing Islamic banks since it was found (chapter six, section one) that a higher proportion of Islamic banks-2 are owned by government. Also, all converted Islamic banks except for one, in the surveyed Islamic banks, are located in Islamic banks-2 reflecting the fact that Islamic governments forced the Islamisation of banking businesses.

#### **12.3.2.3. OTHER RESEARCH FINDINGS :**

One clear finding of this research is that there are few statistically significant differences in the long term finance performance between banks operating in Islamic economies (Islamic banks-2) and Islamic banks operating in other economies (Islamic banks-1). This finding seems to be surprising because Islamic banks operating in Islamic economies (Islamic banks-2) might be expected to enjoy facilities which might not be available to the Islamic banks operating in non Islamic economies (chapter three, section two). It was thought that Islamic banks-2 would have a higher rate of success in long term finance programmes but that was not the case. The lack of differences between the two groups of Islamic banks could be due to the following reasons :

- a. Islamisation of economies in these three countries (Iran, Pakistan and Sudan) had not been completed by the time the data for this research were collected. As discussed earlier (chapter five, section two), three questionnaires were rejected from the Islamic banking questionnaires because the banks concerned did not answer any Islamic finance policy question. All these rejected questionnaires were from the Islamic banks-2.

- b. In addition, the process of Islamisation needs a transition period in which banks adapt to Islamic economics and finance.
- c. It seems that at the international level Islamic governments face problems. The Islamised economies appear not to be highly significant at the international level in terms of the volume of financial transactions. This factor weakens the ability of Islamic governments to enforce the Islamic Sharia Laws at the international level. This leads to the conclusion that in a global economy banks have to operate in the same way worldwide. Such problems might make it more difficult for Islamic banks-2 to achieve a higher level of performance than Islamic banks-1. However, this hypothesis needs further empirical research to find out how Islamic banks operate at an international level.

#### **12.3.2.4. EXPERIENCE :**

The performance of the Islamic banking industry in long term finance programmes is determined in the research through the application and employment of 4M finance policies. In this respect, first, there is no difference between the experience of Islamic banks-1 and Islamic banks-2 because the Islamic banking industry and the Islamisation of banking industry took place in the 1970's.

Secondly, origin of a bank, in other words, whether it was established as an Islamic bank or a traditional bank, could be important. Converted banks, had for a long time prior to conversion operated different operational policies. The change of policy, with no prior experience in the new one, could have been sometimes harder than starting with a fresh one. This could explain why there was no difference in the performance of Islamic banks-1 and Islamic banks-2 where almost all converted banks are from Islamic banks-2. That is quite the contrary to Islamic banks-1 where, in most cases, if not all, the individuals who were so enthusiastic about the idea of Islamic banking lead to the establishment of Islamic banks-1, in other words, the high motivation could have overcome the difficulties of non Islamic economies. An Islamic bank manager (Almoftie 1991, pages 25-26[35]) discussed this point from a different aspect, when he stated that some limitations (negative aspects) took place when Islamic banks employed staff who had originally

trained and worked in the traditional banking industry and it needed time to retrain them. However, it seems that his comment is about the situation pre Islamisation of the economy in Sudan, but its significance is present in that the converted banks might face problems in the conversion process.

Thirdly, Islam has not given rigid finance policies. On the contrary Islam gives general finance principles (as discussed in chapter two, section one), for example, prohibition of interest, otherwise muslims have to adapt and develop suitable operational policies (Alhaq 1979, pages 18-20[17]). The process of developing suitable policies which conform with Islamic finance principles takes time. Therefore, the similarities of the performance of Islamic banks-1 and Islamic banks-2 in long term finance programmes could be due to this fact rather than to the factors discussed earlier (in chapter three, section two) which lead to the conclusion that the performances of the two groups should be different from each other.

Fourthly, as a result of Islamic banking methods being still in the development stage and the fact that Islamic finance policies are not recognised internationally (Homud 1985, pages 29-33[85]), Islamic banks might have to use western methods especially at the international level. This suggestion, however, needs further empirical research.

#### **12.3.2.5. THE ISLAMIC BANKING INDUSTRY OBJECTIVES :**

It was discussed earlier (chapter two, section one) that the Islamic bank's objective is to apply Islamic Sharia in its operations which is mainly concerned with the elimination of interest and the employment of Islamic finance policies, in other words, to make Islamic banking operations halal. Otherwise, Islamic banks should apply the professional practices of banking in their operations.

The findings of this research, are mainly concerned with the professional practices of long term finance programmes which do not necessarily have to differ between Islamic banks-1 and Islamic banks-2. In other words, the lack of differences between Islamic banks-1 and Islamic banks-2 could be due to factors related to the professional practices of banking and not due to factors related to the Islamisation of the economy.

#### **12.3.2.6. ISLAMIC BANKS-1 ACHIEVEMENT :**

It was discussed earlier (chapter three, section two) that the Islamic banks-1 face problems and difficulties as a result of operating in non Islamic economies. If the assumption that Islamic economies provide better condition for Islamic banks to operate in is true, this leads to the conclusions that Islamic banks-1 are highly successful in their long term finance programmes and that extra efforts are needed for Islamic banks-2 to achieve a comparable performance, which ought, in theory, to be possible for the reasons given.

#### **12.3.2.7. COMPETITION :**

One reason as to why there was no difference between Islamic banks-1's and Islamic banks-2's long term finance performance could be due to the competition factor. Islamic banks-1 face mainly competition from traditional banks. In fact, Islamic banks-1 provide different service to interest based banks namely : halal services. This factor may have lessened the competition with interest based banks where Islamic banks-1's clients (depositors and entrepreneurs) are committed to halal banking services. By contrast the competition amongst Islamic banks-2 is more severe because all of them provide halal services. The competition factor may have lead Islamic banks-1 to be more successful to the extent that their performance is not different to Islamic banks-2's.

#### **12.3.3. DISCUSSION RELATED TO ISLAMIC FINANCE POLICIES :**

This section discusses the findings related to Islamic finance policies, that is musharaka, mudaraba, murabaha and muzaraha.

##### **12.3.3.1. THE BACKBONE ISLAMIC FINANCE POLICY :**

Murabaha has been considered to be the backbone of finance in the Islamic banking industry (chapters one, two and three). There was no empirical evidence to determine what backbone meant. In other words, it was not known what the percentage of murabaha or long term finance murabaha were conducted by Islamic banks compared to other Islamic finance policies. But the term 'backbone' implies that Islamic banks heavily employ murabaha and that they rarely employ

musharaka, mudaraba and muzaraha.

The findings of this research indicates no support to the idea that murabaha is the backbone of long term finance in the Islamic banking industry since it was found that there is no fundamental difference between : a) the employment of the 4M in long term finance programmes; b) the proportion of long term finance resources allocated to long term finance murabaha, musharaka and mudaraba programmes (chapter ten, section one). Such findings are by no means be considered to confirm long term finance murabaha as the backbone of long term finance in the Islamic banking industry.

It seems that at the early stage of Islamic banking industry Islamic banks applied heavily the murabaha policy and perhaps for this reason some writers considered it as the backbone of finance in Islamic banking industry (as discussed in chapters one, two and three).

What is more, it was found also that there is no difference in the degree of involvement in individual long term finance 4M programmes. Moreover, it was found also that there is no difference in the required rate of return on long term finance 4m programmes.

However, it was found that muzaraha is the least applied in long term finance programmes in the Islamic banking industry compared to musharaka, mudaraba and murabaha programmes.

It appears reasonable to suggest that musharaka, mudaraba and murabaha finance policies are equally important in long term finance programmes in the Islamic banking industry.

#### **12.3.3.2. MOVEMENT IN THE APPLICATION OF 4M :**

One clear finding of this research is that it seems safe to suggest that there is a move in the application of 4M (musharaka, mudaraba, murabaha and muzaraha) Islamic finance policies and that murabaha is no longer the backbone of long term finance in the Islamic banking industry. Musharaka, mudaraba and murabaha are equally important for financing long term programmes in Islamic banking industry. This could be because :

- a. The Islamic banks gained more experience and became more confident about conducting riskier policies.



- b. Islamic finance policies, other than murabaha, have become clearer and more developed since the start of the Islamic banking industry. There is a growing amount of research concerning the applications of musharaka and mudaraba. For example the International Association of Islamic banks in Cairo devoted one whole volume to Musharaka (1985[23]). Islamic governments also legislated for the conduct of mudaraba and the other finance policies (as discussed in chapters two and three).
- c. It seems also that traditional banks compete with Islamic banks. For example, one Islamic bank used to invest a high proportion of its resources in buying cars for its clients, that is a murabaha contract. Lately, however, traditional banks started to penetrate the car market with higher incentives than that of the Islamic bank concerned. The Islamic bank could (did not want to) not match the traditional banks, so it reduced its dealings with the car market and consequently it reduced the proportion of resources allocated to murabaha programmes.
- d. Also, in a seminar presented by the researcher in an Islamic research centre in Jeddaha, Saudi Arabia, a researcher pointed out that Islamic banks face some problems in murabaha applications. He gave as an example that once the ownership of the product, for example a car, is transferred to the client by murabaha contract the Islamic banks do not have enough guarantees. He pointed out that Islamic banks have started to apply instalment purchase in which the Islamic banks still own the product until the whole price is paid.
- e. Mohamad (1990, page 286[120]) found that most of the bad debts cases in an Islamic bank are on the basis of murabaha. It seems the reason was lack of fast communication and exchange of information between branches in the concerned Islamic bank.
- f. Murabaha, also, has some limitations (see chapter two, section four).

#### **12.3.3.3. MUSHARAKA FINANCE POLICY :**

Noticeably, no Islamic bank invests more than 60% of its long term finance resources in long term finance musharaka programmes. These findings, perhaps, reflect the nature of the musharaka finance policy where an Islamic bank is a partner in long term finance musharaka

programmes and the other partners must share the finance (as discussed in chapter two, sections two and six). So, although it can be that the bulk of long term finance programmes in which an Islamic bank is involved use musharaka, still these programmes do not have high proportion of long term finance resources to the extent that long term finance musharaka programmes never exceed 60% of the total long term finance programmes of any Islamic bank. By contrast, in mudaraba if an Islamic bank finances the majority of long term finance mudaraba programmes they could take a high proportion of bank's long term finance resources.

#### **12.3.3.4. MUZARAHA FINANCE POLICY :**

One clear finding of this research is that muzaraha is least employed in long term finance programmes in the Islamic banking industry. It is perhaps the nature of muzaraha which made it the least employed by Islamic banks in long term finance programmes as follows :

- a. Muzaraha is suitable for rural areas and that most of Islamic banks are located in urban societies.
- b. Muzaraha as a finance policy requires a provider of land and a provider of labour, otherwise the it is not valid (Kahf 1991[101]). So, Islamic banks either buy (own) land and they provide also capital so the farmer uses his/her skills in muzaraha basis. Or the Islamic banks take the land on a muzaraha basis and must be responsible for providing the labour and finance.

Normally banks are interested in providing funds rather than land. This reason also may help to explain why some Islamic banks use musharaka rather than muzaraha for agriculture programmes (Khalifa and Ibrahim (1983[106]).

The conclusions however need further empirical research.

#### **12.3.4. DISCUSSION OF FINDINGS RELATED TO TYPE OF TRADITIONAL BANKS :**

This section focuses on the discussion of some findings related to type of traditional banks, that is traditional banks-1 and traditional banks-2.

Two findings seem to be surprising, namely : the ownership and the involvement in long term finance programmes.

#### **12.3.4.1. OWNERSHIP :**

Unexpectedly, it was found that traditional banks-1 and traditional banks-2 are similar in terms of ownership where it was expected to have more traditional banks-2 owned by the public sector. It seems the reason behind this is that traditional banks-1 include also government owned banks and traditional banks-2 include private banks aiming at profit making.

#### **12.3.4.2. INVOLVEMENT IN LONG TERM FINANCE PROGRAMMES :**

Although traditional banks-2 invest a higher proportion of their resources in long term finance programmes than traditional banks-1, unexpectedly, both type of banks are similar in their involvement in long term finance programmes, that is the contribution to individual long term finance programmes. This finding reflects the cautious policy of the traditional banking industry in taking an active role in long term finance programmes regardless of the type of a traditional bank.

#### **12.3.5. DISCUSSION OF FINDINGS RELATED TO AGE AND SIZE :**

This section focus on the discussions of the findings related to the banks' age and size in relation to long term finance programmes performance.

##### **12.3.5.1. PREVIOUS RESEARCH :**

It is perhaps an obsession of researchers to try to link the performance of a firm in capital investment to some characteristics of the firm, for example Pike (1981[139] and 1988[142]), Klammer (1973[114]), Haka and others (1985[80] ). In most of these cases there was, if any at all, only a weak association between the firm's performance and its characteristics such as size.

#### **12.3.5.2. FINDINGS OF THIS RESEARCH :**

This research examined the long term finance programmes performance in relation to two banking characteristics namely : banks' age and size of capital. In all long term finance programmes performance factors, for example resources allocated to long term finance programmes, involvement and success of long term finance programmes, there was no association between these factors and banks' age and size except in one, namely : banks' size in relation to the success rate.

#### **12.4. FURTHER DISCUSSION OF THE FINDINGS :**

This research has drawn a clear empirical picture of Islamic banks, traditional banks and their performance in long term finance programmes.

It is perhaps one of the strongest points of this research investigation that it has answered empirically, collectively and comparatively questions related to the Islamic banking industry. It is not adequate to examine individual cases and come to generalised conclusions concerning banking industry; therefore, it was decided :

- a. To answer these questions following a comparative methodology approach which made it possible also to answer questions related to another banking industry namely; the traditional banking industry.
- b. To involve all Islamic banks in the survey investigation regardless their location (as discussed in chapter four).

The aim of this section is to discuss further the research findings as follows : 1) 4M and Islamic banking literature; 2) long term finance programmes and the second Islamic banking conference; 3) lending or sharing ?; 4) success or emotion?; 5) table summary of the findings; 6) dissimilarity; 7) similarity; 8) similarity or Dissimilarity?; 9) literature : renewal or finding?

#### **12.4.1. 4M AND ISLAMIC BANKING LITERATURE :**

It was discussed in chapter one, section one that theorists of Islamic banking and Islamic economics prefer musharaka as the most suitable finance policy for both development and long term finance programmes. The findings of this research suggest on the one hand that musharaka is as important as murabaha and mudaraba in the application to long term finance programmes. On the second hand, murabaha can by no mean be as the most important finance policy in long term finance programmes, that is the backbone of long term finance programmes in the Islamic banking industry. Consequently, it appears that musharaka is being recognised by the practitioners of Islamic banking and that it is becoming more important to long term finance programmes.

#### **12.4.2. LONG TERM FINANCE PROGRAMMES AND THE SECOND ISLAMIC BANKING CONFERENCE :**

It was discussed in chapter one, section one that the second Islamic banking conference recommended that Islamic banks should increase the long term finance which leads to economic and social development. It does not appear that the conference made its recommendation based on empirical research which suggested that Islamic banks lack long term finance programmes. It seems that the recommendation came because those attending the conference felt the importance of long term finance programmes in development and recommended that Islamic banks should conduct more long term finance programmes (Journal of Albonouk Alislamia (Islamic bank) 1989, pages 3-9[98] and Journal of Aliqtisad Alislami (Islamic Economics) 1988, pages 2-6[99]). However, regardless the debate over the theory of economic development and social development and regardless the difference between the Islamic and the western point of views over it, for further discussion over these issues see for example Mohamad (1990[120]), Janahi (1988, pages 20-26[95]), Alnajar (1985, pages 16-28[36]), Also, bearing in mind that the orientation of the research is not economics, this thesis empirically examined different aspects of long term finance programmes; ratio of long term finance; Involvement in long term finance programmes; rate of return on long term finance programmes; success on long term finance programmes. All

suggested that the Islamic banks are comparable with the much older and more experienced banking industry, that is the traditional banking industry. That perhaps indicates that Islamic banks recognised the importance of long term finance programmes and the role of musharaka in the development (economic and social). However, the finding of this research investigation can be further analysed in the context of economic and social development.

#### **12.4.3. LENDING OR SHARING? :**

Two clear findings of this research are :

- a. Islamic banks are more involved in long term finance programmes. In other words, they contribute a higher proportion to individual long term finance 4M programmes than traditional banks.
- b. Musharaka and mudaraba are as important as murabaha in financing long term finance programmes.

Consequently, one important question arises : " Is it the ownership or the lending which governs the relation between a bank and a long term finance programmes?".

The nature of musharaka (as discussed in chapter two, section two) requires an Islamic bank to be one of the owners of a long term finance programmes, that is an Islamic bank is a partner. In other words, the Islamic bank owns the project rather than lends to it.

Mudaraba, also, requires the bank to be an owner of a long term finance mudaraba project. Kahf (1991[101]) explains that the mudaraba finance provider still owns the mudaraba project and the entrepreneur just uses the finance to make profits (see chapter two, section three). The same principle is also applied to muzaraha finance policy.

This analysis of involvement and ownership leads to the conclusions that Islamic banks recognised the importance of participating in long term finance programmes and therefore they are involved in long term finance programmes not in the classical way (lending) like traditional banks, but they share and own the programmes.

The advantages of banks sharing in long term finance programmes is not only recognised in the Islamic banking literature (discussed in chapter one, section one and chapter two, section two) but also in the traditional banking literature. For example Ibrahim (1984, page 26[96] discussed two advantages of traditional banks sharing a programme's ownership :

- a. Legal and managerial help especially at the start of the programme.
- b. The involvement of a bank provides confidence for other businessmen (investors) to join the programme.

However, a greater involvement in long term finance programmes is not trouble free for Islamic banks. In an interview with a head of research centre in an Islamic bank he said that Islamic banks face a problem that if the programme is successful the entrepreneur does not like to share the success with the bank and tries to keep the relation with the bank as a lending one. On the other hand, if the project is a failure, the entrepreneur tries to keep a partnership relations with the Islamic bank.

#### **12.4.4. SUCCESS OR EMOTION? :**

It seems that Islamic banks within a short period of time and compared to the older industry, that is the traditional banking industry, have achieved more than expected of them both as banks and in their long term finance programmes performance. The Islamic banks' assets grew at a faster rate between 1986 and 1991. In 1991 they had similar sizes of asset and capital compared to the other banks in their country. Also, they gained banking experience and confidence to be more involved in long term finance programmes and to apply riskier policies in long term finance programmes, that is musharaka and murabaha finance policies.

As discussed earlier (previous section) that higher rate of return serves all parties involved, in other words, it serves the depositors, entrepreneur and the bank, it appears that not only religious motives which make people deposit their money in the Islamic banks but also the operational policies that the Islamic banks adopted such as the involvement in long term finance programmes and dividend policies. As a depositor commenting on the question of why he deposits his money

in an Islamic bank, said :

"I am happy, I have higher return than the interest rate of traditional banks and it is halal!".

**12.4.5. TABLE SUMMARY OF THE FINDINGS :**

Hypotheses	total	rej	accep	total	sim	dis
Type of bank (IBs/TBs)	9	6	3	9	5	4
Location of IBs	19	17	2	19	16	3
Islamic finance policies	5	5	0	5	5	0
Type of TBs	9	7	2	9	7	2
Age of banks/IBs/TBs	19	14	5	19	19	0
Size of banks/IBs/TBs	19	13	6	19	18	1
Total	80	62	18	80	70	10
		78%	22%		88%	12%

**12.4.6. DISSIMILARITY :**

Table 12-7 shows that only 12% of the total findings of the research suggest that the various types of banks are dissimilar. Perhaps only a few of them deserve attention. These are :

- a. Traditional banks-2 invest a higher proportion of their resources in long term finance programmes than traditional banks-1.
- b. Islamic banks are more involved in long term finance programmes than traditional banks.
- c. Islamic banks require a higher rate of return than Islamic banks.
- d. Converted Islamic banks are mainly Islamic banks-2.

**12.4.7. SIMILARITY :**

Table 12-7 shows that 88% of the findings suggest that various types of banks are similar. Perhaps the following similarities are of especial interest :

- a. Islamic banks are similar to traditional banks in terms of investing in long term finance programmes and success rate of long term finance programmes.
- b. Traditional banks-1 are similar to traditional banks-2 in the involvement in long term



finance programmes.

- c. Islamic banks-2 are similar to Islamic banks-1 in long term finance programmes performance.

#### **12.4.8. SIMILARITY OR DISSIMILARITY ? :**

It was found that Islamic banks are similar to traditional banks in many aspects both as banks and in their long term finance programmes, for example, size (chapter six) and long term finance programmes success rate (chapter eleven). In fact, these similarities were not expected. For Islamic banks, to achieve similar results to traditional banks which are older and more experienced than Islamic banks, moreover, using Islamic finance policies never employed in banking applications before, must be viewed as a great achievement.

#### **12.4.9. LITERATURE : RENEWAL OR FINDINGS :**

The hypotheses (chapter three, section two) were drawn from an extensive literature review (chapters one and two). They were theoretically justified. Empirically, however, 76% of these hypotheses are not valid and should be rejected. The following reasons may help to explain this result :

- a. The hypotheses were built on a theoretical basis. There was no empirical research to guide the theory. In other words, previous writers had made general observations not based on a comprehensive examination of banks.
- b. Observations without empirical research might lead to biased conclusions depending on the prejudices of the observer.
- c. It might be, also, that the literature suggested what should be done rather than describing what is happening in real life. This is, perhaps, the main reason (as discussed in the research limitations in chapter one, section three) as to why this research tackled banking issues from a practical point of view.

Table 12-7 shows that 88% of the empirical findings of the research suggest that banks are

similar. This finding perhaps shows the difference between theory and application. The theory, based on the stated hypotheses, suggests that banks should be different from each other. On the other hand, real life suggests that they are not. In an Interview with a bank manager he said :

"It is interesting to see how academics think about banking"

#### **12.5. RECOMMENDATIONS FOR FURTHER RESEARCH :**

The aim of this section is to present some ideas which are thought to have the potential to be developed into full research projects.

##### **12.5.1. RESEARCH AGAIN :**

The findings of this research relate to the surrounding circumstances at the time the data were collected (between 1990 and 1991, end of the first Gulf crisis and the start of the second Gulf crises), Islamisation processes and other interrelated factors were not completed. Bearing in mind that the banking business is never stagnant, it would be of interest to investigate the research questions again in a few years time.

The study could be extended to see which banking system makes a greater contribution to the economy. The study could identify long term finance programmes financed by both the Islamic banking and traditional banking industries and examine their contributions to the economy.

##### **12.5.2. SEGMENTATION :**

One finding of this research is that there was a lack of differences in long term finance programmes performance between Islamic banks-1 and Islamic banks-2. A new research study could segment the population of this research study and investigate one segment in greater depth. The study should look at the long term finance programmes performance in one country where there are banks originally established on an Islamic basis and banks that had to convert their business to operate on an Islamic basis.

### **12.5.3. MODELLING :**

One interesting project would be to design a model, to investigate the Islamic banks' decision making in applying Islamic finance policies in their long term finance and to include the other side of the equation viz the sources of funds for example, capital, long term deposits, short term deposits and current accounts. The model should be able to predict/ determine the optimum mix of finance policies giving the endogenous and exogenous factors which influence the bank's decisions.

### **12.5.4. DECISION MAKING :**

One area of further research would be the study of cases of long term finance programmes from the perspectives of decision processes, risk, and implementation. The study would examine projects financed using different Islamic finance policies, for example, musharaka and mudaraba. The study could specify industries where Islamic banks invest using these policies. The study should identify areas where management should be more careful in applying 4M policies, ie critical points in decision making. The study could be extended to examine which policy is more suitable to which kind of long term finance programmes.

### **12.5.5. ISLAMIC FINANCE POLICIES :**

One finding of this research is concerned with the application of Islamic finance policies to long term finance programmes. It seems that there is a movement in the frequency of employment from one policy to another. The reasons for this change of emphasis are not well understood. Further research is urgently needed in Islamic banking to explore these changes. The research should not predetermine the finance policies, but should investigate the historical employment of Islamic finance policies. It is not advisable to include a large sample of Islamic banks in the study but it could be based on case studies in a few Islamic banks.

### **12.5.6. CENTRAL BANKS :**

From the literature of Islamic banking, it seems that Islamic banks in non Islamic economies face

problems from the central banks' policies which offer inadequate support to Islamic banking.

This area could be developed into a research project. The aims of the research are as follows :

- a. Extending the current research by examining the effect of central banks' policies on long term finance programmes performance.
- b. Exploring suitable central banks' policies to supervise Islamic banks in non Islamic economies.

The research would focus on one non Islamic economy where the Islamic banking share of market is significant. As a research instrument, interview can be useful.

## APPENDICES

This section includes appendices. They are as follows : 1) The questionnaires and the covering letters and; 2) the loglinear model technique.

### **APPENDIX 1-a : COVERING LETTER : THE ISLAMIC BANKING QUESTIONNAIRE In The Name of Allah, The Most Beneficial, The Merciful**

Yousif Ashour  
Keynes College  
Canterbury  
Kent CT2 7NP  
England, U.K.  
December 11th, 1990

**Dear Brother in Islam,**

**Assallamu Alaikum wa Rahmatu Allah wa Barakatuh**

I hope that this letter reaches you while you are in the best health. I would like to take this opportunity to send you my questionnaire.

I am conducting a Ph.D. research project with Canterbury Business School here at the University of Kent.

My Research is concerned with the introduction and the application of quantitative approach generally into the Islamic Banking Industry. More specifically I am looking into the applications of the quantitative approach to the long term (more than 2 years) investment planning using musharaka, mudaraba and murabaha in the Islamic Banking Industry.

As one of the most important stages of my research is the evaluation of the current practices in long term investment planning in the Islamic Banking Industry, I have designed the attached questionnaire to fulfil this purpose.

I would be grateful to you if you would kindly answer the questionnaire. It will help me a lot to build a model of the long term investment policies for the Islamic Banking Industry using the scientific methods.

Any information given in this questionnaire will be used only for academic research. Also it will be kept strictly confidential and there will be no mention of any bank name in the research. Moreover, I am willing, on request, to supply a copy of my final research to you. This may help your bank to benefit from the new methods of long range investment (financing) planning.

Please notice that the focus of the questionnaire is on investment activities that the bank conducts with other parties such as mudarib, murabih or shariec.

In advance I would like to express my gratitude to you for all your help and advice. Jazakum Allah Kul Kheir Wa Al Salamualikom wa Rahmatu Allah wa Barakatu.

Yours Sincerely

Yousif Ashour

**REMINDER**

**In The Name of Allah, The Most Beneficial, The Merciful**

TO :  
The Bank Manager

February 11th 1991.

**Dear Brother in Islam,**

**Assallamu Alaikum wa Rahmatu Allah wa Barakatuh**

I pray to Allah S. w. T. that this letter reaches you and all muslim Umma in the best state of peace. I pray to Allah S. W. T. to rush His mercy upon all of us. Amma baad:

As I have told you in my previous letter dated 11th of December 1990 that my Ph.D. research project depends on conducting a questionnaire to evaluate the practice of long range (more than two years) investment planning in the Islamic Banking Industry. I have sent you a copy of that questionnaire on 11th of November 1990.

Actually, my research progress is now completely dependent on the questionnaire.

Your contribution is of paramount importance. I would be extremely grateful to you if you could fill in the questionnaire with any additional comments that you may find relevant.

I look forward to hearing from you in the near future. Thank you for your time and cooperation. Jazakum Allah kul kheir, wa Assallamu Alaikum wa Rahmatu Allah wa Barakatuh

yours Sincerely,

Y. Ashour

P.S. : I herewith include another copy of the questionnaire in case you have not received it.

**In The Name of Allah, The Most Beneficial, The Merciful**  
**QUESTIONNAIRE ON :**  
**THE LONG TERM INVESTMENT (FINANCING) PLANNING**  
**IN THE ISLAMIC BANKING INDUSTRY**

**GENERAL INFORMATION :**

The aim of this part is to give general information about the bank. It is not necessary to mention the bank name.

- a.a. Date of answer :
- a.b. Respondent position :
- a.c. What country is the bank's headquarters in ?
- a.d. Is the bank owned by the government(s)? Yes/No
- a.e. When was the bank's headquarters established?: 19 ...
- a.f. Was the bank established as an Islamic Bank from the beginning? Yes/No
- a.g. What month does the financial year starts ?
- b.a. What is the bank's Capital (Equity) million? Now = ( ),  
If you use your currency what is the exchange rate: one USA Dollar \$= ( ),  
in 1986=( ), exchange rate one USA Dollar \$= ( ).
- b.b. If you compare your bank with other banks in the country, in terms of total assets, would you say that the bank is : small, medium or large.
- b.c. Would you describe the average annual growth in total assets during the last 5 years as :  
less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70 71-80% 81-90% 91-100%
- b.d. Does the bank have a separate department for ever investment method, for example, Musharaka department, marabaha department. Yes/No. If yes,
- b.e. Do you have separate units for long term investment for every investment policy. Yes/No

**SECTION ONE**

Please notice that the duration of long term is more than 2 years

**1.1. What is the :**

- aa ratio of your bank's annual long term investment to total assets? less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- ab. Ratio of long term finance using the 4M policies to total Finance in Islamic banks:

Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
less than 5%				
6- 10%				
11-20%				
21-30%				
31-40%				
50-60%				
61-70%				
71-80%				
81-90%				
91-100%				

- b. the required after tax minimum rate of return used for evaluating long term projects using the 4M in Islamic banks

Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
less than 5%				
6- 10%				
11-20%				
21-30%				
31-40%				
50-60%				
61-70%				
71-80%				
81-90%				
91-100%				

- c. What is the ratio of investment outside the country to total investment Zero% less than 5% 6-10% 11-20% 21-30 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- d. Does the bank's activities include :  
 Management buy out. Yes/No  
 Financing projects owned by government(s). Yes/No  
 Joint ventures with other banks, that is projects financed by your bank together with other banks. Yes/No
- e. Would you specify the maximum percentage of a project's finance that the bank can offer using the 4M in Islamic banks :

Ratio	Musharaka	Mudaraba	Murabaha	Muzaraha
less than 5%				
6- 10%				
11-20%				
21-30%				
31-40%				
50-60%				
61-70%				
71-80%				
81-90%				
91-100%				

**1.2. Business plan :**

- a. Does your bank require detailed business plan for every long term project before deciding to finance it? Yes/No
- b. What proportion of long term projects proposals (plans) would you say are normally accepted by your bank and pass the early stages of evaluation? less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-80% 81-90% 91-100%
- c. Of those that passed the early stages of evaluation what proportion eventually get financed by your bank less than 5% 6-10% 11-20% 30-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- d. If your bank does not require a detailed business plan, is it because :  
 - The project is an expansion of an existing activity Yes/No  
 - The project is a small one Yes/No  
 - The project is in a safe business Yes/No  
 - The entrepreneur is very trusted Yes/No  
 - Others, please specify
- e. What proportion of long term investment are successful that is have generated the desired results : less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80%





- b- Musharaka involves a very high risk Yes( ) No( )
- c- Difficulties in finding a proper partners Yes( ) No( )
- d- Difficulties in finding acceptable securities Yes( ) No( )
- e- Previous experience of musharaka is not encouraging Yes( ) No( )
- f- Difficulties in getting out (ending) of musharaka projects Yes( ) No( )
- g- Musharaka as an investment method is not as clear as mudaraba Yes( ) No( )
- h- Others (please specify),

	1991 practice				1986 practice	
	1	2	3	4	y	n
1.5. Does your bank						
a. Reconsider major projects after approval if cost over runs are likely						
b. Monitor project performance once operational?						
c. Require post-completion audits on most major long term investment projects?						
d. Require separate accounts for musharaka if it is not the only project that the partner owns?						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.6. Does your bank require for major (large) long term finance projects :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Specific search and screening of alternatives before accepting projects?						
b. A formal financial evaluation?						
c. A formal analysis of risk?						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.7. Does your bank use appraisal criteria in long term financing projects? Yes( ) No( ). If yes, which are used, and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Payback period						
b. Discounting-internal rate of return						
c. Discounting-net present value						
d. Accounting Rate of return on investment						
e. Others; please specify						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.8 . Does your bank consider risk involved within long term financing projects? Yes( ) No( ). If yes, which are used, and how often do you use : Please assign the appropriate answers

	1991 practice				1986 practice	
	1	2	3	4	y	n
	a. Shortening payback period b. Raising required return or discount rate c. Probability analysis d. Sensitivity analysis e. Measuring covariance of projects f. Others; please specify					
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.9. Does your bank consider inflation in long term financing projects? Yes( ) No( ). If yes, which are used, and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
	a. Consider at risk analysis/sensitivity stage b. Specify cash flows in constant prices and apply real rate of return c. Adjust for estimated changes in general inflation d. Specify different rates of inflation for all costs and revenues e. Others; please specify					
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.10. Does the bank experience difficulties in taking long term financing decision as a result of estimating or dealing with following area:

	Musharaka	Mudaraba	Murabaha	Muzaraha
a. Depreciation b. Replacement c. Taxation d. Zakat e. Profits				

1.11. Does your bank use Operational Research techniques in appraising or planning long term financing projects? Yes( ) No( ). If yes, which are used and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
	a. Computer Simulation b. Linear Programming c. Decision Theory d. Forecasting Models e. Statistical Analysis f. Financial Modelling g. Cost Benefit Analysis h. Others (please specify)					
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.12. Would you say that over the last five years your bank's the long term financing planning process and techniques used in appraisal processes have become :



2.10. How important is the personal experience and intuitive approach in making appraisals to long term investment policy decision in your bank?

1 2 3 4 5

2.11. How important are the following financing policies for your bank :

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| a.i. To finance risky projects with high profits                | 1 | 2 | 3 | 4 | 5 |
| a.ii. To finance safe projects with low profits                 | 1 | 2 | 3 | 4 | 5 |
| b.i. To finance the project from the idea stage                 | 1 | 2 | 3 | 4 | 5 |
| b.ii. To finance start up projects eg. new factory              | 1 | 2 | 3 | 4 | 5 |
| b.iii. To finance early stages of a new project eg machines     | 1 | 2 | 3 | 4 | 5 |
| b.iv. To finance expansion capital eg. new line or product      | 1 | 2 | 3 | 4 | 5 |
| b.v. To finance working capital eg. material or salaries        | 1 | 2 | 3 | 4 | 5 |
| c.i. To finance labour-intensive project                        | 1 | 2 | 3 | 4 | 5 |
| c.ii. To finance low technology projects                        | 1 | 2 | 3 | 4 | 5 |
| c.iii. To finance high technology projects                      | 1 | 2 | 3 | 4 | 5 |
| d.a. To finance projects to produce basic commodity/service     | 1 | 2 | 3 | 4 | 5 |
| d.b. To finance projects to produce luxury commodity/service    | 1 | 2 | 3 | 4 | 5 |
| e.i. To finance very long term projects (more than 5 years)     | 1 | 2 | 3 | 4 | 5 |
| e.ii. To finance long term projects (more than 2 years)         | 1 | 2 | 3 | 4 | 5 |
| e.iii. To finance medium term projects (more than 1 year )      | 1 | 2 | 3 | 4 | 5 |
| e.iv. To finance short term projects (less than 1 year )        | 1 | 2 | 3 | 4 | 5 |
| f.i. To finance small firms(less than 30 employees)             | 1 | 2 | 3 | 4 | 5 |
| f.ii. To finance medium sized firms (31-100 employees)          | 1 | 2 | 3 | 4 | 5 |
| f.iii. To finance large firms (more than 100 employees)         | 1 | 2 | 3 | 4 | 5 |
| g.i. To finance manufacturing firms                             | 1 | 2 | 3 | 4 | 5 |
| g.ii. To finance agriculture firms                              | 1 | 2 | 3 | 4 | 5 |
| g.iii. To finance service firm                                  | 1 | 2 | 3 | 4 | 5 |
| g.iv. To finance import/export operation                        | 1 | 2 | 3 | 4 | 5 |
| h.i. To provide finance for personal/social use                 | 1 | 2 | 3 | 4 | 5 |
| h.ii. To finance a productive project to produce goods/services | 1 | 2 | 3 | 4 | 5 |
| i.i. To finance projects inside the country                     | 1 | 2 | 3 | 4 | 5 |
| i.ii. To finance projects outside the country                   | 1 | 2 | 3 | 4 | 5 |
| o.i. To finance a firm owned by one person                      | 1 | 2 | 3 | 4 | 5 |
| o.ii. To finance a firm owned by one family                     | 1 | 2 | 3 | 4 | 5 |
| o.iii. To finance a firm owned by different shareholders        | 1 | 2 | 3 | 4 | 5 |
| k.i. To finance a firm with track records in the market         | 1 | 2 | 3 | 4 | 5 |
| k.ii. To finance a new firm just started business               | 1 | 2 | 3 | 4 | 5 |

How Important are the following characteristics in the entrepreneur :

- |                                       |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|
| l.i. To have a high managerial skills | 1 | 2 | 3 | 4 | 5 |
| l.ii. To have a high financial skills | 1 | 2 | 3 | 4 | 5 |

2.12. In the long term, how important are the following investment methods for your bank?

- |                      |   |   |   |   |   |
|----------------------|---|---|---|---|---|
| a. Direct investment | 1 | 2 | 3 | 4 | 5 |
|----------------------|---|---|---|---|---|

b. Musharakat	1	2	3	4	5
c. Mudarabat	1	2	3	4	5
d. Murabahat	1	2	3	4	5
e. Muzaraat	1	2	3	4	5

2.13. In the long run if the contract is musharaka, how important are the following methods :

a. Permanent musharaka	1	2	3	4	5
b. Timed (mutanaqisa) musharaka	1	2	3	4	5
c. One transaction musharaka	1	2	3	4	5

2.14. How important are the following policies in ending musharaka projects :

a. Liquidation of the project	1	2	3	4	5
b. Selling the bank's share to the other partners	1	2	3	4	5
c. Selling the bank's share to other parties	1	2	3	4	5
d. Buying the partners' shares	1	2	3	4	5

2.15. At the end of musharaka, how important are the following methods in evaluating the remaining of part of the musharaka project :

a. Historical values	1	2	3	4	5
b. Market values	1	2	3	4	5
c. Negotiation and arbitration	1	2	3	4	5
d. Professional evaluator	1	2	3	4	5
e. Agreed values in the contract (before the start)	1	2	3	4	5

Last question : Over the coming five years, do you expect that your long term financing programme will become :

a. More sophisticated in appraising projects	Yes( )	No( )
b. Easier to be conducted because the bank has more experience	Yes( )	No( )
c. More difficult as a result of increasing competition	Yes( )	No( )
d. Larger as a result of 1992 EC market	Yes( )	No( )

**Any further comments :**

I would like to express my thanks to you for your cooperation and time in answering this questionnaire. I will consider any further comment you may have.

**APPENDIX 1-b : COVERING LETTER : THE TRADITIONAL BANKING QUESTIONNAIRE**

**In The Name of Allah, The Most Beneficial, The Merciful**

FROM :

Y. Ashour

Keynes College

Kent University

Canterbury

Kent CT2 7NP

January 7th, 1991

**Dear manager,**

I would like to take this opportunity to send you my questionnaire.

I am conducting a Ph.D. research project with Canterbury Business School here at the University of Kent at Canterbury.

My Research is concerned with the introduction and the application of the quantitative approach generally to Banking Industry. More specifically I am looking into the applications of quantitative approach to the long term (more than two years) financing (lending) planning in the Banking Industry.

As one of the most important stages of my research is the evaluation of the current practices in long term financing (lending) planning in the Banking Industry, I have designed the attached questionnaire to fulfil this purpose.

I would be grateful to you if you would kindly answer the questionnaire. It will help me a lot to build a model of the long term financing (lending) policy for the Banking Industry using the scientific methods.

Any information given in this questionnaire will be used only for academic research. Also, it will be kept strictly confidential and there will be no mention of any bank name in this research. Moreover, I am willing, on request, to supply a copy of my final research to you. This may help your bank to benefit from the new methods of long range financing planning.

In advance I would like to express my gratitude to you for all your help and advice. Thank you so much.

Yours Sincerely

Yousif Ashour

**REMINDER**

**In The Name of Allah, The Most Beneficial, The Merciful**

TO : The Bank Manager,

February 13th 1991.

**Dear Manager,**

I have sent you a letter dated 7th of January 1991 in which I have told you that my Ph.D. research project depends on conducting a questionnaire to evaluate the practice of long range lending planning in the Banking Industry. I have sent you a copy of that questionnaire on 7th of January 1990.

Actually, my research progress is now completely dependent on the questionnaire.

Your contribution is of paramount importance. I would be extremely grateful to you if you could fill in the questionnaire with any additional comments that you may find relevant.

I look forward to hearing from you in the near future. Thank you very much for your time and cooperation.

yours Sincerely,

Y. Ashour

P.S. : I herewith include another copy of the questionnaire in case you have not received it.



**In The Name of Allah, The Most Beneficial, The Merciful  
QUESTIONNAIRE ON :  
THE LONG TERM FINANCING (LENDING) PLANNING  
ON THE ARABIC BANKING INDUSTRY**

**GENERAL INFORMATION :**

The aim of this part is to give general information about the bank. It is not necessary to mention the bank name.

- 1a Date :
- 1b Respondent position : ...
- 1c What country is the bank's headquarters in? ...
- 1d Is the bank owned by the government? Yes/No
- 1e When was the bank's headquarters established ? 19 ..
- 1f Does your bank have Islamic branches or use any of the Islamic finance methods. Yes/No
- 1g What month does the financial year starts?
- 2a What is the bank's Capital (Equity) in million (Sterling) Now = ( ) and in 1986 = ( )
- 2b If you compare your bank with other banks in the country, in terms of total assets, would you say that your bank is : small, medium or large
- 2c Would you describe the average annual growth in total assets during the last 5 years as : less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- 2d Does the bank have a separate department for long term finance (loans) Yes/No.
- 2e Would you describe your bank as : Commercial bank Industrial bank Housing bank Investment bank Other, please mention:

**SECTION ONE**

**L QUESTIONS ON THE PRACTICES OF LONG TERM LENDING PLANNING:**

Please notice that the duration of long term is more than 2 years

1.1. What is the :

- a ratio of your bank's annual long term finance (loans) to total assets? less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- b after tax minimum rate of return used for evaluating long term projects? less than 5% 6-10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- c What is the ratio of finance (loan) outside the country to total loans Zero% less than 5% 6-10% 11-20% 21-30 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-100%
- d Does the bank's activities include :
  - Management buy out. Yes/No
  - Financing projects owned by government(s). Yes/No
  - Joint ventures with other banks that is projects financed by your bank together with other banks. Yes/No
- e Would you specify the maximum percentage in a project's finance that your bank can finance as: less than 15% 16-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 90-100%

1.2. Business plan :

- a Does your bank require detailed business plan for every long term project before deciding to finance it? Yes/No

- b What proportion of long term projects proposals (plans) would you say are normally accepted by your bank and pass the early stages of evaluation? less than 5% 6-10% 11-20% 21-30% 30-40% 41-50% 51-60% 61-80% 81-100%
- c Of those that passed the early stages of evaluation what proportion eventually get financed by your bank less than 5% 6-10% 11-20% 21-30% 30-40% 41-50% 51-60% 61-80% 81-100%
- d If your bank does not require a detailed business plan, is it because :
  - The project is an expansion of an existing activity Yes/No
  - The project is a small one Yes/No
  - The project is in a safe business Yes/No
  - The entrepreneur is very trusted Yes/No
  - Others, please specify
- e What proportion of long term loans are successful that is have generated the desired results : less than 10% 11-20% 21-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 91-95% 96-100%
- f Would you specify the maximum percentage in a project's finance that your bank can finance as: less than 15% 16-30% 31-40% 41-50% 51-60% 61-70% 71-80% 81-90% 90-100%

1.3. Does your bank have :

- a. long term financing planning which looks beyond two years? yes/no
- b. an up-to-date manual or written procedures to appraise long term financing proposals? yes/no
- c. staff engaged full-time in appraising long term financing? yes/no
- d. a regular review of the minimum rate of return? yes/no

1.4.i. What are the main constraints on the size of your bank's long term financing programme?

please assign the appropriate answers.

- a. Lack of quantitative methods eg computer simulation used in financing appraisal Yes( ) No( )
- b. Lack of finance opportunities Yes( ) No( )
- c. Lack of trained managers capable of appraising financing opportunities Yes( ) No( )
- d. Lack of capital available Yes( ) No( )
- e. Unwillingness to increase level of long term finance Yes( ) No( )
- f. General economic uncertainty Yes( ) No( )
- g. Governmental regulations and restrictions Yes( ) No( )
- h. Central Bank regulations and restrictions Yes( ) No( )
- i. Others, please specify

1.4.ii. Which of the following difficulties are experienced in taking long term financing decision ?

- a. Ambiguity of the bank's long term finance objectives Yes( ) No( )
- b. Conflicts in the bank's finance policies Yes( ) No( )
- c. Lack of information and research about financing opportunities Yes( ) No( )
- d. High managerial costs incurred in long term finance Yes( ) No( )
- e. Lack of communication and cooperation between departments in the bank Yes( ) No( )
- f. Others, please specify

1.4.iii. What do you think are the reasons which make long term finance more difficult to use in comparison with short term finance, is it because :

- |  |        |       |
|--|--------|-------|
| a. The bank is new and needs more experience                   | Yes( ) | No( ) |
| b. Long term finance involves a very high risk                 | Yes( ) | No( ) |
| c. Difficulties in finding a proper clients                    | Yes( ) | No( ) |
| d. Difficulties in finding acceptable securities               | Yes( ) | No( ) |
| e. Previous experience of long term finance is not encouraging | Yes( ) | No( ) |
| f. Difficulties in getting out of long term finance projects   | Yes( ) | No( ) |
| g. Others (please specify),                                    |        |       |

1.5. Does your bank :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Reconsider major projects after approval if cost over runs are likely						
b. Monitor project performance once operational?						
c. Require post-completion audits on most major long term loans projects?						
d. Require separate accounts for major long term projects						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.6. Does your bank require for major (large) long term projects (loan) :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Specific search and screening of alternatives before accepting projects?						
b. A formal financial evaluation?						
c. A formal analysis of risk?						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.7. Does your bank use appraisal criteria in long term financing projects? Yes/No. If yes, which are used, and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Payback period						
b. Discounting-internal rate of return						
c. Discounting-net present value						
d. Accounting Rate of return on investment						
e. Others; please specify						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.8. Does your bank consider risk involved within long term financing projects? Yes/No. If yes, which are used, and how often do you use : Please assign the appropriate answers

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Shortening payback period						
b. Raising required return or discount rate						
c. Probability analysis						
d. Sensitivity analysis						
e. Measuring covariance of projects						
f. Others; please specify						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.9. Does your bank consider inflation in long term financing projects? Yes/No. If yes, which are used, and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Consider at risk analysis/sensitivity stage						
b. Specify cash flows in constant prices and apply real rate of return						
c. Adjust for estimated changes in general inflation						
d. Specify different rates of inflation for all costs and revenues						
e. Others; please specify						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.10. Does the bank experience difficulties in taking long term financing decisions as a result of estimating or dealing with :

- a. Depreciation      yes( )    No( )
- b. Replacement     yes( )    No( )
- c. Taxation          yes( )    No( )
- d. Profits            yes( )    No( )

1.11. Does your bank use Operational Research techniques in appraising or planning long term financing projects? Yes/No. If yes, which are used and how often do you use :

	1991 practice				1986 practice	
	1	2	3	4	y	n
a. Computer Simulation						
b. Linear Programming						
c. Decision Theory						
d. Forecasting Models						
e. Statistical Analysis						
f. Financial Modelling						
g. Cost Benefit Analysis						
h. Others (please specify)						
1=never, 2=rarely, 3=often, 4=always y=yes, n=no						

1.12. Would you say that over the last five years your bank's the long term financing planning process and techniques used in appraisal processes have become :

- a. More sophisticated      Yes( )    No( )
- b. More time consuming    Yes( )    No( )

- c. More costly                      Yes( )    No( )  
 d. More effective                  Yes( )    No( )

**SECTION TWO**

Please, for the rest of the questions, indicate the relative importance of each of the possible answers by circling the appropriate number on the scale :

- 1 = very important  
 2 = important  
 3 = average importance  
 4 = below average importance  
 5 = unimportant

2.1. How important are the following financial objectives for your bank?

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| a. Maximise percentage return on assets    | 1 | 2 | 3 | 4 | 5 |
| b. Maximise earnings or earnings per share | 1 | 2 | 3 | 4 | 5 |
| c. Maximise share price                    | 1 | 2 | 3 | 4 | 5 |
| d. Target earnings                         | 1 | 2 | 3 | 4 | 5 |
| e. Target share of the market              | 1 | 2 | 3 | 4 | 5 |
| f. Others, please specify                  | 1 | 2 | 3 | 4 | 5 |

2.2 How important are the social development eg health care objectives in your long term financing decisions                      1    2    3    4    5

2.3. How important are the economic development objectives in your long term financing decisions                      1    2    3    4    5

2.4. In the long term, how important are the following investment policies for your bank?

- |                                    |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|
| a. Direct investment in businesses | 1 | 2 | 3 | 4 | 5 |
| b. Project appraisals for others   | 1 | 2 | 3 | 4 | 5 |
| c. Project promotion               | 1 | 2 | 3 | 4 | 5 |

2.5. How important are quantitative techniques eg computer simulation in appraising financing proposals                      1    2    3    4    5

2.6. How important is a systematic long term financing planning system in making sound financing decision?                      1    2    3    4    5

2.7. How important are qualitative factors eg client's social status long term financing decision?                      1    2    3    4    5

2.8. How important are the full details in long term loan contract                      1    2    3    4    5

2.9. How important are the following policies in taking an active role to monitor and manage the borrower's project? (if the loan is large and long term).

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| a. Not to play any role in the project management           | 1 | 2 | 3 | 4 | 5 |
| b. To be represented on the board of the company            | 1 | 2 | 3 | 4 | 5 |
| c. To decide the strategic policies for the project         | 1 | 2 | 3 | 4 | 5 |
| d. To provide management staff to the project               | 1 | 2 | 3 | 4 | 5 |
| e. To give help and advice on how to manage the project     | 1 | 2 | 3 | 4 | 5 |
| f. To be involved in day-to-day operations                  | 1 | 2 | 3 | 4 | 5 |
| g. To ask for periodical reports on the project performance | 1 | 2 | 3 | 4 | 5 |

2.10. How important is the personal experience and intuitive approach in making decisions and appraising long term financing in your bank?                      1    2    3    4    5

2.11. How important are the following financing policies for your bank :

a.i . To finance risky projects with high profits	1	2	3	4	5
a.11. To finance safe projects with low profits	1	2	3	4	5
b.i. To finance the projects from the idea stage	1	2	3	4	5
b.ii. To finance start up projects eg. new factory	1	2	3	4	5
b.iii. To finance early stages of new projects eg. machines	1	2	3	4	5
b.iv. To finance expansion capital eg. new line or product	1	2	3	4	5
b.v. . To finance working capital eg. material or salaries	1	2	3	4	5
c.i. To finance labour intensive project	1	2	3	4	5
c.ii. To finance low technology projects	1	2	3	4	5
c.iii. To finance high technology projects	1	2	3	4	5
d.i To finance projects to produce basic commodity/service	1	2	3	4	5
d.ii. To finance projects to produce luxury commodity/service	1	2	3	4	5
e.i. To finance very long term project(more than 5 years)	1	2	3	4	5
e.ii. To finance long term project (more than 2 years)	1	2	3	4	5
e.iii. To finance medium term project (more than 1 year )	1	2	3	4	5
e.iv. To finance short term project (less than 1 year )	1	2	3	4	5
f.i. To finance small firms(less than 30 employees)	1	2	3	4	5
f.ii. To finance medium firms (31-100 employees)	1	2	3	4	5
f.iii. To finance large firms (more than 100 employees)	1	2	3	4	5
g.i. To finance manufacturing firms	1	2	3	4	5
g.ii. To finance agriculture firms	1	2	3	4	5
g.iii. To finance service firm	1	2	3	4	5
g.iv. To finance import/export operation	1	2	3	4	5
h.i. To provide finance for personal/social use	1	2	3	4	5
h.ii. To finance a productive project to produce goods/services	1	2	3	4	5
i.i. To finance projects inside the country	1	2	3	4	5
i.ii. To finance projects outside the country	1	2	3	4	5
k.i. To finance a firm owned by one person	1	2	3	4	5
k.ii. To finance a firm owned by one family	1	2	3	4	5
k.iii. To finance a firm owned by different shareholders	1	2	3	4	5
l.i. To finance a firm with track records in the market	1	2	3	4	5
l.ii. To finance a new firm just started business	1	2	3	4	5

How Important are the following characteristics in the entrepreneur :

a. To have a high managerial skills	1	2	3	4	5
b. To have a high financial skills	1	2	3	4	5

2.13. If your bank use Islamic investment methods, how important the following methods as they are used :

a. Musharaka	1	2	3	4	5
b. Mudaraba	1	2	3	4	5
c. Murabaha	1	2	3	4	5

d. Muzaraa

1 2 3 4 5

Last question : Over the coming five years, do you expect that your long term financing programme will become :

- |  |        |       |
|--|--------|-------|
| a. More sophisticated in appraising projects                   | Yes( ) | No( ) |
| b. Easier to be conducted because the bank has more experience | Yes( ) | No( ) |
| c. More difficult as a result of increasing competition        | Yes( ) | No( ) |
| d. Larger as a result of 1992 EC market                        | Yes( ) | No( ) |

**Any further comments :**

I would like to express my thanks to you for your cooperation and time in answering this questionnaire. I will consider any further comment you my have.

## APPENDIX TWO

### STATISTICAL TECHNIQUES

#### 1. INTRODUCTION :

The aim of this section is to discuss the statistical techniques used and the analysis approach followed in analysing the data. The aim of discussing the statistical techniques, that is loglinear models, is to give an idea to non statistical readers of what meant by the techniques and how to interpret the results. For further discussions of loglinear models, see :

- a. Norusis (1985[131]), chapter 8 and 9.
- b. Gilbert (1981[77]), (provides an introduction to loglinear analysis).
- c. Agresti (1990[7], 1984[6]), (provides an advanced discussion of loglinear methods).

#### 2. LOGLINEAR MODELS :

Loglinear models are used to analyse categorical data (Norusis 1985, p.299[131], Agresti 1990[7] and 1984[6]) by examining the relations among categorical variables. Also, loglinear models are built to predict the number of cases in a cell of multidimensional contingency tables.

##### 2.a. SATURATED MODELS :

A saturated model is a loglinear model that contains as many parameters as there are cells and, in particular, includes a complete set of interaction effects. It produces the expected cases in each cell which in this case is equal to the number of observed cases. It gives also the percentage of a given cell expressed as a percentage of the total cases. This model serves as a first step in understanding the data because it reproduces exactly the frequencies in each category thus giving rise to a  $X^2$  value zero. This model however is not used in the analysis part of this research investigation.

##### 2.b. UNSATURATED MODELS :

An unsaturated model is any loglinear model that is not saturated. The independence model is the



most common unsaturated loglinear model. It is based on column and row totals only. In general the number of observed cases is not equal to the expected number in each cell. It gives also the residuals, that is differences between the observed and expected cases in each cell. However, other unsaturated models including only a particular set of residuals are sometimes of interest in loglinear analysis.

Chi square (ch sq) has a positive value. The size of ch sq for different loglinear models is used as a guide to model acceptance.

The independent "unsaturated" loglinear model is used in the analysis of this research investigation in chapter 6 to chapter 11.

### **2.b.i. RESIDUALS :**

The model produces two residuals. The first is the standard residual "std resid". The second is the adjusted residual "adj resid".

The std resid of a category is the residual of that category divided by the square root of the expected cell frequency. If the std resid is between -1.96 and 1.96 it suggests unimportant discrepancies between the observed and expected frequencies of that category. This is likely to happen if the model is adequate in representing the data. Otherwise, if the std resid is less than -1.96 or higher 1.96, it suggests an important discrepancy between the observed and expected frequency of that category that needs further discussion/analysis.

The adj resid of a category is the std resid of that category divided by an estimate of its standard error. If the std resid is between -2 and 2 it suggests unimportant discrepancies between the observed and expected frequency of that category and this is likely to happen if the model is adequate in representing the data. Otherwise, if the adj resid less than -2 or higher 2, it suggests an important discrepancy between the observed and expected frequency of that category and that it needs further discussion/analysis.

### **2.b.ii. CHI SQUARE**

Chi - Square (Ch sq) Goodness of fit test, is a test of the hypothesis that a particular model fits the observed data can be based on the familiar Pearson Chi Square or the Likelihood Ratio Chi Square statistics. Normally they both have the same value. Therefore, only one of them is used, that is the likelihood ratio Ch square.

A high value of Ch sq normally reflects significant differences between observed and expected cell counts. In other words, it suggests that the model is inadequate.

A high value of Ch sq is normally associated with a low significance level. If the observed significance level associated with the ch sq statistic is very small, that is less than 0.05, the model is rejected.

### **2.b.iii. DEGREE OF FREEDOM :**

Degrees of Freedom (DF) is the number of cells in the table minus the independent parameters in the model.

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