



**UNIVERSITI PUTRA MALAYSIA**

**INTERNATIONAL EVIDENCE ON COST, REVENUE, AND PROFIT  
EFFICIENCY OF CONVENTIONAL AND ISLAMIC BANKS**

**MOHAMMED KHALED I. BADER.**

**GSM 2007 4**

**INTERNATIONAL EVIDENCE ON COST, REVENUE, AND PROFIT  
EFFICIENCY OF CONVENTIONAL AND ISLAMIC BANKS**

**By**

**MOHAMMED KHALED I. BADER**

**Thesis Submitted to the Graduate School of Management, Universiti Putra  
Malaysia, in Fulfilment of the Requirement for the Degree of Doctor of  
Philosophy**

**July 2007**



## DEDICATION

### **I dedicate this thesis**

*To the memory of my father Khaled Ibrahim Bader (1936-1989) who urged me to the value of knowledge;*

*To my tender mother who instilled in me the meaning of sacrifice;*

*To my devoted wife who covered me with love and support;*

*To my dearest children, Hadi, Hadil, Bashar, and Sama who represented to me the meaning of hope;*

*To my siblings and the whole family who provide me with encouragement and care;*

*To the Administration, colleagues and students of Al-Quds University who granted me their support;*

*To my supervisor and entire committee who pointed to me the way throughout my research; and*

*To the many people that helped me to pursue my studies up to this level.*

## **ABSTRACT**

Abstract of thesis presented to the Senate of University Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

### **INTERNATIONAL EVIDENCE ON COST, REVENUE, AND PROFIT EFFICIENCY OF CONVENTIONAL AND ISLAMIC BANKS**

By

**MOHAMMED KHALED I. BADER**

**July 2007**

**Chairman: Professor Shamsheer Mohamad Ramadili, PhD**

**Faculty: Graduate School of Management**

Bank efficiency is important in achieving the competitive edge for survival in a globalised banking industry. Conventional and Islamic banks operate on different principles in maximizing the wealth of their shareholders and are subjected to the competitive regulatory environment. Minimising cost and maximising revenues and profits to ensure survival are the two aims of all banks. These aims ensure the efficiency of financial sector and contribute to the overall economic growth.

An important issue that needs to be addressed is the differences in the level of efficiency of these banks. In spite of the overwhelming empirical evidence on the efficiency of conventional banks, to date, there is no comprehensive evidence on the comparative cost, revenue, and profit efficiency of conventional and Islamic banks. This study fills this gap by analysing and comparing the efficiencies of Islamic and conventional banks in 21 countries during the period 1990-2005.

The cost, revenue, and profit efficiency of Islamic banks and conventional banks are analyzed based on size, age, and region. The average and over-time efficiency for these banks are analyzed using Data Envelopment Analysis (DEA) and Financial Ratios. Overall cost and profit efficiencies are ascertained using the Stochastic Frontier Approach (SFA).

The findings suggest that there are no significant differences between the overall efficiency results of conventional and Islamic banks irrespective of the method of analysis. Based on the documented evidence on efficiency of conventional banks, these findings imply that the banking transactions compliant with the *Shari'ah* are not an impediment to efficiency of Islamic banks. However, there is a substantial avenue to further improve the cost, revenue and profit efficiencies in both the banking systems.

The DEA based findings show no significance difference in average efficiency scores between big and small banks and between new and old banks in both the banking streams. However, geographical location explains the significant differences in revenue and profit efficiency. Further, the results show that, on average, banks are better in utilising their resources than in generating revenues and profits. In general, more inefficiency comes from the revenue side and banks in both banking streams need to further improve their revenue efficiency.

The evidence, based on SFA, suggests no significant differences between the cost and profit efficiency scores between conventional and Islamic banks based on size, age, and region. Similar evidence is observed from the Financial Ratios analysis.

Overall, the results on the efficiency of conventional and Islamic banks are consistent with the documented literature. The robustness of the results has been tested based on single-country analysis and also a group of selected countries representing relatively less-developed and more-developed countries. Except for minor differences the results of these tests are consistent with the overall results, further substantiating the fact that there are no significant differences in cost, revenue and profit efficiency of conventional and Islamic banks.

## **ABSTRAK**

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

### **BUKTI ANTARABANGSA PERBANDINGAN KECEKAPAN KOS, HASIL DAN KEUNTUNGAN ANTARA BANK KONVENSIONAL DAN BANK ISLAM**

Oleh

**MOHAMMED KHALED I. BADER**

**Julai 2007**

**Pengerusi: Profesor Shamsheer Mohamad Ramadili, PhD**

**Fakulti: Sekolah Pengajian Siswazah Pengurusan**

Kecekapan bank adalah penting untuk mencapai kelebihan persaingan dan penakatan dalam industri perbankan global. Bank konvensional dan bank Islam beroperasi untuk memaksimumkan pulangan kepada pemegang saham dengan prinsip yang berbeza dan tertakluk kepada persekitaran berperaturan persaingan. Meminimumkan kos dan memaksimumkan hasil dan keuntungan untuk menentukan penakatan merupakan dua objektif semua bank yang seterusnya akan menyumbangkan kepada kecekapan sektor kewangan dan pertumbuhan ekonomi secara menyeluruh.

Isunya ialah kecekapan bagi kedua-dua aliran bank tersebut. Sungguhpun terdapat banyak bukti empirik yang mencatatkan tahap kecekapan bank konvensional, sehingga hari ini tidak ada catatan yang komprehensif mengenai perbandingan kecekapan kos, hasil dan keuntungan antara bank konvensional dan bank Islam. Kajian ini berusaha untuk mengisi ruang tersebut dengan mengkaji tahap kecekapan kos, hasil dan keuntungan bank konvensional dan bank Islam di 21 buah negara

untuk tempoh 1990- 2005. Kecekapan kos, hasil dan keuntungan kedua-dua aliran bank tersebut dianalisis berdasarkan perbezaan saiz, tempoh masa kewujudan bank dan lokasi atau wilayah tempat bank beroperasi. Purata dan arah aliran kecekapan mengikut masa kedua-dua aliran bank dianalisa dengan menggunakan kaedah '*Data Envelopment Analysis*' (DEA), kaedah nisbah kewangan dan kecekapan kos dan keuntungan secara menyeluruh dengan menggunakan kaedah '*Stochastic Frontier Analysis*' (SFA).

Penemuan utama kajian mendapati tiada perbezaan yang signifikan terhadap kecekapan yang menyeluruh di antara kedua-dua aliran bank walaupun menggunakan kaedah yang sama. Berdasarkan bukti empirik yang didokumenkan mengenai kecekapan bank konvensional mendapati bahawa ianya adalah lebih mantap dan cekap, dan penemuan ini memberi implikasi yang urusniaga perbankan berdasarkan prinsip Syariah tidak menjadi halangan kepada pencapaian kecekapan yang setara dengan bank konvensional. Walaubagaimanapun, masih terdapatnya ruang untuk mempertingkatkan lagi tahap kecekapan kos, hasil dan keuntungan di kedua-dua sistem perbankan tersebut.

Penemuan berdasarkan kaedah DEA menunjukkan tiada perbezaan yang signifikan terhadap kecekapan purata di antara bank bersaiz kecil dengan bank bersaiz besar, bank yang baharu wujud dengan bank yang telah lama wujud, bagi kedua-dua aliran bank yang dikaji. Walaubagaimanapun, lokasi geografi memberi gambaran perbezaan yang signifikan terhadap kecekapan hasil dan keuntungan di antara kedua-dua aliran bank. Tambahan pula, secara purata, penemuan menunjukkan bahawa bank lebih cekap mengguna sumber-sumber berbanding menjanakan hasil



dan keuntungan mereka. Pada keseluruhannya, kebanyakan ketidakcekapan datangnya dari hasil dan oleh yang demikian kedua-dua sistem perbankan perlu meningkatkan kecekapan hasil mereka.

Dengan menggunakan kaedah SFA, kecuali kecekapan keuntungan bank yang bersaiz besar berbanding dengan bank yang bersaiz kecil, penemuan menunjukkan tiada perbezaan yang signifikan antara kecekapan kos dan keuntungan antara bank konvensional dan bank Islam berdasarkan faktor saiz, umur, kawasan operasi bank tersebut. Penemuan berdasarkan analisis nisbah kewangan juga mendapati tiada perbezaan kecekapan yang bererti bagi kedua-dua aliran bank tersebut.

Secara keseluruhannya, penemuan kajian ini berkaitan dengan kecekapan bank konvensional dan bank Islam adalah tekal sepertimana pada sorotan yang didokumenkan. Keteguhan penemuan kajian ini telah di uji berdasarkan analisis satu negara dan juga kumpulan negara terpilih yang mewakili negara membangun dan negara maju. Kecuali beberapa perbezaan kecil, penemuan kajian ini adalah tekal dengan keseluruhan keputusan. Ini bermakna ia mengukuhkan lagi fakta bahawa tiada perbezaan yang signifikan pada kecekapan kos, hasil dan keuntungan bagi bank konvensional mahupun bank Islam.

## ACKNOWLEDGEMENT

All thanks to Almighty Allah, who is the source of my strength and my life, without whose help; I would not have achieved this goal.

Sincere appreciation and gratitude are also extended to many people who have assisted and encouraged me along the way. First and foremost, I would like to express my great thankfulness to my main supervisor Professor Shamsheer Mohamad who believed in me, encouraged me greatly, and provided guidance in every step in my research. I am grateful to Professor Shamsheer for making the writing of my thesis not only a learning process, but also easy and enjoyable. What I really learned from him, however, is his attitude to work and life - always aiming for excellence.

I would like to thank very much the distinguished committee member, Professor Mohamad Ariff, who have taught me so much and was a source of genuine inspiration to me. Professor Ariff's views were crucial and contributed significantly to my achievement. His encouragement and help made me feel confident to overcome every difficulty I encountered.

I extend my gratitude to Professor Annuar Md. Nassir, the Dean of Faculty Economics and Business (FEB), who was always beside me in the difficult times. I wish to thank Dr. Taufiq Hassan who willingly shared his knowledge and analytical skills which enables me to accomplish my analysis faster. I thank Dr. Taufiq also for his valuable advices and time.

I am indebted to Associate Professor Dr. Arafah Saleh, the Dean of the Graduate School of Management (GSM), who so graciously accommodated my needs, without her help, I would have no dissertation. I am also grateful to the, lecturers, academic and administrative staff at GSM whom provided all the needed assistance and facilities, especially for subscribing for *BankScope* database. I could not forget to thank Mr. Sayd Farouk, Mr. Alias Bin Radam and Associate Professor Dr. Morali Sambasivan for their technical help and suggestions in the data analysis. I would like to highly appreciate the very useful comments suggested by the three distinguished examiners of this thesis.

Very special thanks go to Al-Quds University, the Arab University in Jerusalem-Palestine, for granting me the opportunity and the generous fund to continue my studies at the doctoral level.

I sincerely thank my beloved mother and family for all the opportunities they have given me along with their loving support and patience. Their prayers, encouragement, and advice have been and will always be a fortune for my life.

Thank you to my fellow PhD students and friends for companying me in this special journey and sharing my feelings, especially Khalid Salah, Mohammad Radi, Suzana Idayu, Aryati Alwie, Ong Gua Pak, Dr. Ziad Ezhour, and Dr. Imad Hamadneh.

Lastly, acknowledgment would not be complete without recognizing my devoted wife, and beloved children for their profound support, tolerance, and love. Without them, I would not have achieved this success today.



## TABLE OF CONTENTS

	<b>Page</b>
DEDICATION	ii
ABSTRACT	iii
ABSTRAK	vi
ACKNOWLEDGEMENT	ix
APPROVAL	xi
DECLARATION	xiii
TABLE OF CONTENTS	xiv
LIST OF TABLES	xvi
LIST OF FIGURES	xx
LIST OF ABBREVIATIONS	xxii

## CHAPTER

1.	INTRODUCTION	
	1.1 Background and Motivation	1
	1.2 The Problem Identification	9
	1.3 Objectives of the Study	11
	1.4 Research Questions	11
	1.5 Significance of the Study	12
	1.6 Scope of the Study	14
	1.7 Proposed Chapters	15
	1.8 Summary	15
2.	LITERATURE REVIEW: THEORIES AND EVIDENCES ON BANKING EFFICIENCY	
	2.1 Introduction	18
	2.2 Theoretical Background of the Research	18
	2.3 Theoretical Development of Efficiency Measurement Approaches	25
	2.4 Frontier Analysis Approach	34
	2.5 Summary of Empirical Evidences on Banks' Efficiency	42
	2.6 Conclusion	51
3.	DATA AND METHODOLOGY	
	3.1 Introduction	52
	3.2 Sampling and Data	52
	3.3 Hypotheses Generation	57
	3.4 Efficiency Concepts	60
	3.5 Efficiency Measurement Methods	65
	3.6 Banking Process and Definition of Variables	75
	3.7 Summary	81

4.	FINDINGS ON COST, REVENUE, AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING DATA ENVELOPMENT ANALYSIS	
4.1	Introduction	83
4.2	Overall Efficiency Results: Conventional, Islamic, and All Banks	84
4.3	Efficiency of Big versus Small Banks	95
4.4	Efficiency Old versus New Banks	111
4.5	Regional Efficiency Analysis	123
4.6	Summary	135
5.	FINDINGS ON COST AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING STOCHASTIC FRONTIER ANALYSIS	
5.1	Introduction	141
5.2	Overall Efficiency Results: Conventional, Islamic, and All Banks	142
5.3	Efficiency of Big versus Small Banks	145
5.4	Efficiency of Old versus New Banks	150
5.5	Regional Efficiency Analysis	154
5.6	Summary	159
6.	FINDINGS ON COST, REVENUE, AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING FINANCIAL RATIOS	
6.1	Introduction	163
6.2	Overall Efficiency Results: Conventional, Islamic, and All Banks	166
6.3	Efficiency of Big versus Small Banks	173
6.4	Efficiency of Old versus New Banks	182
6.5	Regional Efficiency Analysis	187
6.6	Summary	192
7.	CONCLUSIONS, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH	
7.1	Conclusions	196
7.2	Implications of the Findings	205
7.3	Limitations of the Study and Mitigating Analytical Issues	206
7.4	Contributions of the Study	211
7.5	Recommendations for Future Research	212
7.6	Summary	213
	BIBLIOGRAPHY	217
	LIST OF APPENDICES	232
	APPENDICES	234
	BIODATA OF THE AUTHOR	268

## LIST OF TABLES

<b>Table</b>	<b>Title</b>	<b>Page</b>
2.1	Summary of Efficiency Concepts	27
3.1	Name of the Groups and Number of Banks Analysed	55
3.2	Comparison and Contrast between the DEA and SFA Methods	75
3.3	Dependent and Independent Variables (Inputs, Outputs, Input Prices, and Output Prices)	79
3.4	Definitions of Cost, Revenue, and Profit Financial Ratios	80
4.1	Descriptive Statistics: Cost, Revenue, and Profit of Conventional, Islamic, and All Banks	85
4.2	Annual Cost, Revenue, and Profit Efficiency Scores for Conventional, Islamic, and all Banks over the Period 1990-2005	87
4.3	Friedman Tests of the Differences in Banks' Cost, Revenue, and Profit Efficiencies	92
4.4	Mann-Whitney Test for Differences in Cost, Revenue and Profit Efficiencies between Conventional and Islamic Banks	93
4.5	Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores for Big versus Small Banks	96
4.6	Annual Cost, Revenue, and Profit Efficiency Scores for Big and Small Conventional and Islamic Banks	102
4.7	Spearman's Correlation Test Statistics for Cost, Revenue, and Profit Efficiency	107
4.8	Mann-Whitney Tests of Differences in Cost, Revenue, and Profit Efficiency between Big versus Small Conventional and Islamic Banks	109
4.9	Descriptive Statistics: Cost, Revenue, and Profit Efficiency Scores of Old and New Conventional and Islamic Banks	111
4.10	Annual Cost, Revenue, and Profit Efficiency Scores for Old and New Conventional and Islamic Banks	116
4.11	Mann-Whitney Tests of Differences between Efficiencies of Old versus New Conventional and Islamic Banks	121

4.12	Descriptive Statistics: Cost, Revenue and Profit Efficiency of Conventional and Islamic Banks Based on Region	123
4.13	Annual Cost, Revenue, and Profit Efficiency of Conventional and Islamic Banks in Africa Region	126
4.14	Annual Cost, Revenue, and Profit Efficiency of Conventional and Islamic Banks in Asia	127
4.15	Annual Cost, Revenue and Profit Efficiency of Conventional and Islamic Banks in the Middle East and Turkey Region	127
4.16	Kruskal-Wallis Test for All Banks Based on Regions	132
4.17	Kruskal-Wallis Test for Banks Based on Type and Region	134
4.18	Summary of Cost, Revenue, and Profit Average Efficiency Scores for All Banks Categories Using DEA	135
4.19	Answers for the Research Questions Based on DEA Results	140
5.1	Descriptive Statistics of Cost and Profit Efficiency of Conventional, Islamic, and All Banks	141
5.2	Descriptive Statistics of Cost and Profit Efficiency of Big versus Small Banks	144
5.3	Descriptive Statistics of Cost and Profit Efficiency of Conventional versus Islamic Banks Based on their Size	146
5.4	Descriptive Statistics of Cost and Profit Efficiency of Old versus New Banks	149
5.5	Descriptive Statistics of Cost and Profit Efficiency of Conventional Versus Islamic Banks Based on their Age	151
5.6	Descriptive Statistics of Cost, Revenue and Profit Efficiency Scores of Banks in the Selected Regions	154
5.7	Descriptive Statistics: Cost, Revenue and Profit Average Efficiency Scores of Conventional versus Islamic Banks in the Selected Regions	156
5.8	Answers for the Research Questions Based on SFA Results	160
6.1	Descriptive Statistics: Cost, Revenue, and Profit Efficiency of Conventional, Islamic, and All Banks	165
6.2	Annual Cost, Revenue, and Profit Efficiency of All Banks over the Period 1990-2005	167

6.3	Annual Cost, Revenue, and Profit Efficiency of Conventional Banks over the Period 1990-2005	168
6.4	Annual Cost, Revenue, and Profit Efficiency of Islamic Banks Over the Period 1992-2005	169
6.5	Descriptive Statistics: Cost, Revenue, and Profit Efficiency of Big, Small, and All Banks	172
6.6	Descriptive Statistics: Cost, Revenue, and Profit Efficiency of Conventional versus Islamic Banks Based on their Size	173
6.7	Annual Cost, Revenue, and Profit Efficiency of Big Banks over the Period 1990-2005	174
6.8	Annual Cost, Revenue, and Profit Efficiency of Small Banks over the Period 1990-2005	175
6.9	Annual Cost, Revenue, and Profit Efficiency of Big Conventional Banks over the Period 1990-2005	176
6.10	Annual Cost, Revenue, and Profit Efficiency of Big Islamic Banks over the Period 1992-2005	177
6.11	Annual Cost, Revenue, and Profit Efficiency of Small Conventional Banks over the Period 1990-2005	178
6.12	Annual Cost, Revenue, and Profit Efficiency of Small Islamic Banks over the Period 1992-2005	179
6.13	Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Old, New, and All Banks	181
6.14	Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Old and New Conventional and Islamic Banks	183
6.15	Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Banks in the Selected Regions	186
6.16	Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Conventional versus Islamic Banks in the Selected Regions	187
6.17	Summary of Cost, Revenue, and Profit Average Efficiency Scores for All Banks Categories Using Financial Ratios	190
6.18	Answers for the Research Questions Based on FRs Results	191
7.1	Summary of Efficiency Scores for All, Conventional, and Islamic Banks Using DEA, SFA, and Financial Ratios Approaches	193



7.2	Summary of the Statistical Tests	198
7.3	Summary of the Answers for the Research Question	212



## LIST OF FIGURES

<b>Figure</b>	<b>Title</b>	<b>Page</b>
2.1	Technical and Allocative Efficiency	39
3.1	Conventional Banking Intermediation Process	77
3.2	Islamic Banking Intermediation Process	77
4.1	Average Cost, Revenue, and Profit Efficiency of Conventional, Islamic, and All Banks	86
4.2	Cost, Revenue, and Profit Efficiency of All Banks over the Period 1990-2005	88
4.3	Cost, Revenue, and Profit Efficiency of Conventional Banks over the Period 1990-2005	89
4.4	Cost, Revenue, and Profit Efficiency of Islamic Banks over the Period 1992-2005	90
4.5	Average Cost, Revenue, and Profit Efficiency of Big versus Small Conventional and Islamic Banks	101
4.6	Cost, Revenue, and Profit Efficiency of Big Conventional Banks over the Period 1990-2005	104
4.7	Cost, Revenue, and Profit Efficiency of Big Islamic Banks over the Period 1990-2005	105
4.8	Cost, Revenue, and Profit Efficiency of Small Conventional Banks over the period 1990-2005	106
4.9	Cost, Revenue, and Profit Efficiency of Small Islamic Banks over the Period 1992-2005	106
4.10	Average Cost, Revenue, and Profit Efficiency of Old versus New Conventional and Islamic Banks	115
4.11	Cost, Revenue, and Profit Efficiencies of Old Conventional Banks over the Period 1990-2005	117
4.12	Cost, Revenue, and Profit Efficiency of Old Islamic Banks over the Period 1992-2005	118
4.13	Cost, Revenue, and Profit Efficiency of New Conventional Banks over the Period 1993-2005	119

4.14	Cost, Revenue, and Profit Efficiency of New Islamic Banks over the Period 1992-2005	119
4.15	Average Cost, Revenue, and Profit Efficiency of All Banks in the Selected Regions	124
4.16	Average Cost, Revenue, and Profit Efficiency of Conventional versus Islamic Banks in the Selected Regions	125
4.17	Cost Efficiency of Conventional Banks in the Selected Regions	128
4.18	Cost Efficiency of Islamic Banks in the Selected Regions	129
4.19	Revenue Efficiency of Conventional Banks in the Selected Regions	130
4.20	Revenue Efficiency of Islamic Banks in the Selected Regions	130
4.21	Profit Efficiency of Conventional Banks in the Selected Regions	131
4.22	Profit Efficiency of Islamic Banks in the Selected Regions	131
5.1	Average Cost and Profit Efficiency of Conventional, Islamic, and All Banks	143
5.2	Average Cost and Profit Efficiency of Big versus Small Banks	145
5.3	Average Cost and Profit Efficiency of Big versus Small Conventional and Islamic Banks	147
5.4	Average Cost and Profit Efficiency of Old versus New Banks	150
5.5	Average Cost and Profit Efficiency of Old versus New Conventional and Islamic Banks	152
5.6	Cost and Profit Average Efficiency of All Banks in the Selected Regions	154
5.7	Average Cost and Profit Efficiency of Conventional versus Islamic Banks in the Selected Regions	157
6.1	Average Ratio Results of Conventional, Islamic and All Banks	166

## LIST OF ABBREVIATIONS

BBs	Big Banks
BCBs	Big Conventional Banks
BIBs	Big Islamic Banks
CB	Conventional Bank
CBs	Conventional Banks
CE	Cost Efficiency
CRS	Constant Return to Scale
CTIR	Cost to Income Ratio
DEA	Data Envelopment Analysis
DFA	Distribution Free Approach
DMU	Decision-Making Unit
DMUs	Decision-Making Units
E	Efficiency
EFA	Econometric Frontier Approach
FDH	Free Disposal Hull
FF	Fourier-Flexible
FRs	Financial Ratios
IB	Islamic Bank
IBs	Islamic Banks
IDB	Islamic Development Bank
IFR	Islamic Financial Reporting
ME &T	Middle East and Turkey
NBs	New Banks
NCBs	New Conventional Banks
NIBs	New Islamic Banks
NIER	Non Interest Expenses Ratio
NIM	Net Interest Margin
OBs	Old Banks
OCBs	Old Conventional Banks
OIBs	Old Islamic Banks
OPIR	Other Operating Income Ratio
PE	Profit Efficiency
PLS	Profit-Loss Sharing
PM	Profit Margin
RE	Revenue Efficiency
ROA	Returns on Assets
ROAA	Returns on Adjusted (Average) Assets
ROAE	Return on Adjusted (Average) Equity
ROE	Returns on Equity
SFA	Stochastic Frontier Analysis (Approach)
Std. Dev.	Standard Deviation
TFA	Thick Frontier Approach
UAE	United Arab Emirates
USA	United States of America
USD	United States Dollar (\$)
VRS	Variable Return to Scale.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background and Motivation

The first chapter provides a general background about the study. It identifies the problem statement and objectives of the research. It also lists the research questions and highlights the importance of this study. The chapter, as well, justifies the benefits and clarifies the implications of this research. Furthermore, the theoretical and empirical contributions are declared in this introductory chapter. Finally, the scope of the study and its proposed chapters are outlined followed by a brief summary.

#### 1.1.1 Background

Banks, like other financial institutions, are simply business organised to ‘maximise’ the value of the shareholders’ wealth invested in the firm at an acceptable level of risk. Iqbal and Molyneux (2005) define the *bank* as a financial intermediary that offers the widest range of financial services -especially credit, savings, and payment services- and performs the widest range of financial functions of any business firm in the economy. In this regard, *Islamic banking* is just another way of performing the financial intermediation function. Instead of using the rate of interest to mobilise savings, Islamic banks mobilise funds on the bases of Profit-Loss Sharing (PLS) with their depositors (Ariff, 2006).

While conventional banking history dates back to the 11<sup>th</sup> century, the theoretical development of Islamic banking model started in 1950s; meanwhile, the practical

development started from the remote village of Egypt (Mitt Ghamr) in 1963, and the first modern Islamic bank was established in Dubai in 1975 (Homoud, 1985). Interestingly, Islamic banking now reached a level where almost all major international banks are offering Islamic banking products and the practice of Islamic banking has reached all the corners of the globe<sup>1</sup>.

Islam is the fastest growing religion in the world and there are about 1.8 billion Muslims in 70 Islamic countries and around the globe. Muslims are increasingly searching for financial instrument that adheres to *Shari'ah* principles. Some non-Muslims are also participating in Islamic banking because they consider it to be commercially sound (Brooks, 1999). Thus, soundness of Islamic banks provides an alternative intermediation avenue in the overall financial system and it is important for the international economy as a whole.

Academic research has increased in number on Islamic banking and finance, thus leading to a better understanding of the new form of banking. This is, perhaps, due to the rapid growth of Islamic banking industry as these institutions have grown worldwide at a remarkable pace during the last three decades. According to a study by the International Monetary Fund<sup>2</sup>, the number of institutions rose from 75 in 1975 to over 300 in 2005, in more than 75 countries. Total assets are estimated to be USD 250 billion, which is growing at about 15 percent per year, three times the rate for conventional banks. The total size of Islamic banking assets of USD 250-300

---

<sup>1</sup> See Ariff (2006), Iqbal and Molyneux (2005), Aggarwal and Yousef (2000), Chapra and Khan (2000), and Homoud (1985) for history and general review of Islamic banking.

<sup>2</sup> See International Monetary Fund, "Islamic Finance Gears up," *Finance and Development*, Vol. 42 No. 4, December 2005.