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 Shamsher 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 dikesanakan 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 Shamsher 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.

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 Shariah 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 keadah DEA menunjukan 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 menggunakan 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.

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 Shamsher Mohamad who believed in me, encouraged me greatly, and provided guidance in every step in my research. I am grateful to Professor Shamsher 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.
APPROVAL

I certify that an Examination Committee met on May 28th, 2007 to conduct the final examination of Mohammed Khaled I. Bader on his Doctor of Philosophy thesis entitled “International Evidence on Cost, Revenue, and Profit Efficiency of Conventional and Islamic Banks” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the examination Committee are as follows:

Foong Soon Yau, PhD
Professor
Graduate School of Management
Universiti Putra Malaysia
(Chairman)

Saiful Azhar Bin Rosly, PhD
Professor
Head of Islamic Banking Department
International Centre for Education in Islamic Finance (INCEIF)
Kuala Lumpur
(External Examiner)

Michael Skully,
Professor
Department of Accounting and Finance
Monash University, Australia
(External Examiner)

Muzafar Shah Habibullah, PhD
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Internal Examiner)

Shamsher Mohamad Ramadili, PhD
Professor
Graduate School of Management
Universiti Putra Malaysia
(Representative of Supervisory Committee/Observ

RADUAN CHE ROSE, PhD
Associate Professor/ Deputy Dean
Graduate School of Management
Universiti Putra Malaysia

Date: 3/8/2007
This thesis submitted to the Senate of Universiti Putra Malaysia has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee are as follows:

Shamsher Mohamed Ramadili, PhD
Professor
Graduate School of Management
Universiti Putra Malaysia
(Chairman)

Annuar Mohamed Nassir, PhD
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

Mohamed Ariff Mohamed, PhD
Professor
Graduate School of Management
Universiti Putra Malaysia
(Member)

Taufiq Hassan Shah Chowdury, PhD
Lecturer
Faculty of Economics and Management
Universiti Putra Malaysia
(Member)

FAH SALEH, PhD
Associate Professor/Dean
Graduate School of Management
Universiti Putra Malaysia

Date: 9/8/2007
DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or any other institutions.

MOHAMMED KHALED I. BADER

Date: 28-05-07
TABLE OF CONTENTS

DEDICATION
ABSTRACT
ABSTRAK
ACKNOWLEDGEMENT
APPROVAL
DECLARATION
TABLE OF CONTENTS
LIST OF TABLES
LIST OF FIGURES
LIST OF ABBREVIATIONS

CHAPTER

1. INTRODUCTION
   1.1 Background and Motivation
   1.2 The Problem Identification
   1.3 Objectives of the Study
   1.4 Research Questions
   1.5 Significance of the Study
   1.6 Scope of the Study
   1.7 Proposed Chapters
   1.8 Summary

2. LITERATURE REVIEW: THEORIES AND EVIDENCES ON BANKING EFFICIENCY
   2.1 Introduction
   2.2 Theoretical Background of the Research
   2.3 Theoretical Development of Efficiency Measurement Approaches
   2.4 Frontier Analysis Approach
   2.5 Summary of Empirical Evidences on Banks’ Efficiency
   2.6 Conclusion

3. DATA AND METHODOLOGY
   3.1 Introduction
   3.2 Sampling and Data
   3.3 Hypotheses Generation
   3.4 Efficiency Concepts
   3.5 Efficiency Measurement Methods
   3.6 Banking Process and Definition of Variables
   3.7 Summary
4. FINDINGS ON COST, REVENUE, AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING DATA ENVELOPMENT ANALYSIS

4.1 Introduction
4.2 Overall Efficiency Results: Conventional, Islamic, and All Banks
4.3 Efficiency of Big versus Small Banks
4.4 Efficiency Old versus New Banks
4.5 Regional Efficiency Analysis
4.6 Summary

5. FINDINGS ON COST AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING STOCHASTIC FRONTIER ANALYSIS

5.1 Introduction
5.2 Overall Efficiency Results: Conventional, Islamic, and All Banks
5.3 Efficiency of Big versus Small Banks
5.4 Efficiency of Old versus New Banks
5.5 Regional Efficiency Analysis
5.6 Summary

6. FINDINGS ON COST, REVENUE, AND PROFIT EFFICIENCY OF CONVENTIONAL VERSUS ISLAMIC BANKS USING FINANCIAL RATIOS

6.1 Introduction
6.2 Overall Efficiency Results: Conventional, Islamic, and All Banks
6.3 Efficiency of Big versus Small Banks
6.4 Efficiency of Old versus New Banks
6.5 Regional Efficiency Analysis
6.6 Summary

7. CONCLUSION, IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

7.1 Conclusions
7.2 Implications of the Findings
7.3 Limitations of the Study and Mitigating Analytical Issues
7.4 Contributions of the Study
7.5 Recommendations for Future Research
7.6 Summary

BIBLIOGRAPHY

LIST OF APPENDICES

APPENDICES

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

6.4 Annual Cost, Revenue, and Profit Efficiency of Islamic Banks Over the Period 1992-2005

6.5 Descriptive Statistics: Cost, Revenue, and Profit Efficiency of Big, Small, and All Banks

6.6 Descriptive Statistics: Cost, Revenue, and Profit Efficiency of Conventional versus Islamic Banks Based on their Size

6.7 Annual Cost, Revenue, and Profit Efficiency of Big Banks over the Period 1990-2005

6.8 Annual Cost, Revenue, and Profit Efficiency of Small Banks over the Period 1990-2005

6.9 Annual Cost, Revenue, and Profit Efficiency of Big Conventional Banks over the Period 1990-2005

6.10 Annual Cost, Revenue, and Profit Efficiency of Big Islamic Banks over the Period 1992-2005

6.11 Annual Cost, Revenue, and Profit Efficiency of Small Conventional Banks over the Period 1990-2005

6.12 Annual Cost, Revenue, and Profit Efficiency of Small Islamic Banks over the Period 1992-2005

6.13 Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Old, New, and All Banks

6.14 Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Old and New Conventional and Islamic Banks

6.15 Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Banks in the Selected Regions

6.16 Descriptive Statistics: Average Cost, Revenue, and Profit Efficiency Scores of Conventional versus Islamic Banks in the Selected Regions

6.17 Summary of Cost, Revenue, and Profit Average Efficiency Scores for All Banks Categories Using Financial Ratios

6.18 Answers for the Research Questions Based on FRs Results

7.1 Summary of Efficiency Scores for All, Conventional, and Islamic Banks Using DEA, SFA, and Financial Ratios Approaches
7.2 Summary of the Statistical Tests 198
7.3 Summary of the Answers for the Research Question 212
## LIST OF FIGURES

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

4.15 Average Cost, Revenue, and Profit Efficiency of All Banks in the Selected Regions

4.16 Average Cost, Revenue, and Profit Efficiency of Conventional versus Islamic Banks in the Selected Regions

4.17 Cost Efficiency of Conventional Banks in the Selected Regions

4.18 Cost Efficiency of Islamic Banks in the Selected Regions

4.19 Revenue Efficiency of Conventional Banks in the Selected Regions

4.20 Revenue Efficiency of Islamic Banks in the Selected Regions

4.21 Profit Efficiency of Conventional Banks in the Selected Regions

4.22 Profit Efficiency of Islamic Banks in the Selected Regions

5.1 Average Cost and Profit Efficiency of Conventional, Islamic, and All Banks

5.2 Average Cost and Profit Efficiency of Big versus Small Banks

5.3 Average Cost and Profit Efficiency of Big versus Small Conventional and Islamic Banks

5.4 Average Cost and Profit Efficiency of Old versus New Banks

5.5 Average Cost and Profit Efficiency of Old versus New Conventional and Islamic Banks

5.6 Cost and Profit Average Efficiency of All Banks in the Selected Regions

5.7 Average Cost and Profit Efficiency of Conventional versus Islamic Banks in the Selected Regions

6.1 Average Ratio Results of Conventional, Islamic and All Banks
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 11th century, the theoretical development of Islamic banking model started in 1950s; meanwhile, the practical
development started from the remote village of Egypt (Mitt Gharnr) 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.\(^1\)

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\(^2\), 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

\(^1\) 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.