Comparative Analysis Between Islamic and Conventional Banking System In Term of Profitability and Governance

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ABSTRACT

It is known the banking sector is play the main role in the economy in the world, whereas there are a lot of theories and studies was discussed especially after global financial crisis to explain over the Islamic banks affected by the last crisis. This research is going to comparison financial performance between Islamic banking and conventional banking in five countries. This comparison study will examine the financial performance for two different banking systems depending on the profitability ratios including Return on Equity and Return on Assets by using CAMEL approach in Malaysia, Pakistan, Egypt, Qatar and Turkey. In additional, good governance concept became an important factor recently, this paper will measure the impacts of governance factor on the profitability in Islamic and conventional banks. For this purpose, applying E-views program for estimate correlation and regression analyses to make hypotheses test then concluding the results by using F-test. The data in this research was extracted from financial annual reports of banks from 2008 to 2013. However, the results illustrate the difference of financial performance between Islamic banks and conventional banks.

Keywords: Islamic Banks, Conventional Banks, Profitability and governance.

ÖZ

Son krizden etkilenen İslami bankalar üzerinden açıklamak için özellikle küresel finansal krizden sonra tartışıldı teoriler ve çalışmalar bir yeri vardır oysa, bankacılık sektörü dünyada ekonominin ana rol oynamak bilinmektedir. Bu araştırma beş ülkede İslami bankacılık ve konvansiyonel bankacılık arasındaki karşılaştırmaya finansal performans gidiyor. Bu karşılaştırma çalışması Özkaynak Dönüş, karlılık oranlarına dahildir. bağlı olarak iki farklı bankacılık sistemleri için finansal performansını incelerek ve Malezya, Pakistan, Mısır, Katar ve Türkiye'de CAMEL yaklaşımı kullanarak Aktif Karlılığı olacaktır. Ek olarak, iyi yönetişim kavramı son zamanlarda, bu kağıt İslam ve geleneksel bankaların karlılık üzerinde yönetim faktörünün etkilerini ölçecek önemli bir etken olmuştur. Bu amaçla, tahmin korelasyon ve regresyon E-Gösterim programı uygulayan sonra F-testi kullanılarak sonuçların sonuç hipotez testi yapmak için analiz eder. Bu araştırmada veriler Ancak, sonuçlar İslami bankalar ve konvansiyonel bankalar arasında finansal performans farkını göstermektedir 2008'den 2013 bankaların mali faaliyet raporları elde edilmiştir.

Anahtar Kelimeler: İslam Bankaları, Konvansiyonel Bankalar, Kârlılık ve yönetişim.

To My Country Syria and my great parents

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Chapter 1

INTRODUCTION

The purpose of the economy of any country is to ensure the safety of financial and banking sectors as one of the components of the economic system, therefore the banking systems have a significant role in the financial world, and the effective way that the government uses to stimulate the economy is the monetary policy. However, all financial transactions are done through banks. Despite the strictness of these tools, their clients cannot trust financial institutions especially after the financial crisis. Governments and central banks are striving to stimulate the economy by applying monetary tools, but this simply cannot do the trick. After the global financial crisis, many people went homeless because of the mortgage loans and the unemployment rate increased significantly.

Nowadays, banking systems and financial transactions have become essential in people's lives. It is known that the capitalist system existed since the 19th century and this system depends on the interest rate. Many financial crises emerged since then, such as German hyperinflation between 1918 and 1924, Russian crisis in 1998 and European sovereign debt crisis in 2009. These crises considering as economic and financial crises that result to bankruptcy of a large number of multinational financial companies and a

global recession was predicted in the coming years. The successful instruments of Islamic financial system lead many experts and analysts in the western countries to demand study and work in the Islamic economic system. In addition to this, it also resulted in many of the world's western banks to open branches that operate according to the principles of the Islamic law "Shariah". Despite the successes achieved by Islamic banks, these banks and financial institutions generally lack many factors in some specific areas. Even though governance is not mandatory for companies or banks, the benefits make it necessary, especially in the financial crises' and the subsequent economies which have become an aspect of the capitalist system. Applying the principles of governance of the banks would increase transparency and the credibility in the financial markets.

1.1 History of Islamic Banks

The first Islamic saving bank was established in 1963 in Egypt that operates with the principles of profit-sharing, and since then the Islamic banking system has started to develop. Afterwards, the first Islamic financing system appeared in 1983 in Malaysia. Since 1970s, Islamic banking system has taken serious steps to consolidate its work and methods, and has made significant efforts to develop the structure and characteristics of these institutions. These two wings can keep dealing with the issues of our day, the requirements of customers, and withstand many challenges that are offset of globalization and gigantism in the developed world. In this regard, in the local economies Islamic banks are growing fast in the market shares (Qurrahdaghi, 2011).

Islamic banks (IB) are affected because of the financial crises but not as much as conventional banks (CB) due to financial transactions of IB are not involved with

speculative behavior and interest rate. As BBC published in Islamic banking report "Ernst and Young (E&Y) identify 25 rapid growth market countries which they predict will account for half of global GDP by 2020, of these, 10 have a high Muslim population. Iran accounts for nearly half of the banking assets in Islamic banks worldwide. Three-quarters of the rest is in the QISMUT nations [Qatar, Indonesia, Saudi Arabia, Malaysia, UAE and Turkey] where growth has averaged 6.5% per year for the last five years. The rapid expansion of Islamic banking has been mainly through Islamic branches in conventional banks rather than in pure Islamic banks (Yueh, 2014).

Moreover, regarding Islamic banking system that the interest rate is considered prohibited and all operations are under Islamic law "Shariah" while conventional banking system depends on an interest rate as the main principle of profits.

As Qurrahdaghy (2011) pointed out, during 34 years about 400 of Islamic banks and tens of thousands of branches were established which reached assets of about a trillion dollars and the growth rate between 10% and 30%. This is due to a number of factors which are considered to be the most important from his point of view. These factors are that these banks were based on the Islamic law and adoption contracts that represent assets, such as Murabaha contracts, speculation (Mudarabah) contracts, participation (Musharkah) contracts, leasing (Ijarah) contracts and Istisna'a contracts, whether it being the capital and funds of shareholders or deposit. The traditional bank financing is done by borrowing while the law gave Islamic banks investment rights and right to use all legal contracts except contracts with interest rate as well as use of sale and purchase contracts in part of the capital. However, the last global financial crisis has promoted the

position of Islamic banking system where Islamic law “Shariah” protected these banks from falling into these crises (Qurrahdaghy, 2011).

1.2 The Aims of Study

This is a comparative study that aims to estimate and measure the financial performance of IB and CB in each of Turkey, Malaysia, Qatar, Egypt and Pakistan. This statistical analysis on two different banking systems is to estimate the performance of banks which use many financial rates.

The measurement of this performance is based on CAMEL framework which is a rating system where supervisory authorities are based on five factors, which are capital adequacy, asset quality, management quality, earnings and liquidity. Furthermore, it assesses the performance of profitability and liquidity between Islamic and conventional banks, the ratio that each system depends on such as return on assets (ROA), return on equity (ROE) and the difference between them. Also, it evaluates the governance of Islamic banks in each of these countries.

1.3 The Significance of Study

The significance of this research stems from the attempt to identify the differences between Islamic and conventional banks performances. The study measures the performance differences of banks that use certain financial ratios.

Considering the most important to estimate financial performance by using financial ratios, the aim of this kind of financial analysis is to ensure and check the integrity of the financial statements that display the distribution of the financial resources for aspects of

banks' operation and transaction. In addition to that, financial ratios are important means that are used for planning and controlling the banks. The performance of banks affects a wide range of interested people whether they are inside, outside the bank, traders in the financial market or have the intention to deal in the future. Investors and shareholders get benefits from assessing the performance of banks, where they focus on the success of their investments and increase their profits.

Also, financial management benefits from the evaluations of banks which seek to ensure the success of their institution. Additionally, the depositors and lenders gain benefits as well as ensuring that their money in a safe place. Another aspect is that the research comes to the sensitization step that regards the importance of adopting banks to the principles of governance and points out that banks shouldn't wait until after a crisis occurs to come up with a solution. The prevention of these crises is achieved through the adoption of the concept of governance in economic and financial institutions, and this is done by making all ethical dealings and taking legal subjects into constant scrutiny.

Nowadays, the commitment of the principles in disclosure, transparency, accountability and responsibility is imperative to ensure the continuity of the institution in an environment of an ever changing and permanent crises-prone. This research works on regression analysis to display the result of difference between IB and CB depending on profitability and determining the profitability of two different banking systems. In addition to profitability, this study assesses the concept of banking governance through a detailed study of references together with access to the previous studies and references for the entire financial crises and the governance of banks. All analysis shows the results

of the comparison between Islamic and conventional banks and the relationships between all variables of profitability such as how the ROA, ROE and the size of board of directors affected the banks.

1.4 The Research Aims to Find Out

This paper investigates the actual performance of both Islamic and conventional banks in countries where there is significant Islamic banking and financing trends. Moreover, this search leads to questions such as (i) What are the factors of profitability in conventional and Islamic banks? (ii) What is the difference? (iii) What are the effects of banking governance on Islamic and conventional banks in different countries?

1.5 Structure of the Thesis

In chapter 1, history of Islamic banks is briefly reviewed; aims, significance and outcomes of this study and research are mentioned. In chapter 2, literature review will be introduced showing the similarities and contrasts between the two types of banking; (IB) and (CB) in several aspects (e.g. profitability, characteristics and governance) relying on previous studies. In chapter 3, background information about Islamic and conventional banking systems will be given reviewing the Islamic contracts and impacts of Islamic banking on Malaysia, Qatar, Turkey, Egypt and Pakistan economies. In chapter 4, collected data would be listed and methodology of research will be illustrated. Chapter 5 will be about the conducted empirical analysis; the obtained results will be argued after testing correlation and regression analyses. Finally, the conclusion will be stated in chapter 6.

Chapter 2

LITERATURE REVIEW

2.1 Conventional and Islamic Banks

Banks play the main role in financial transactions worldwide to stimulate the growth of the economy. Comparative analysis between Islamic and conventional banks depends on CAMEL framework.

Many previous studies and researches have been made in order to examine the factors which have an impact on operation, transaction and profitability of Islamic and conventional banks, and to compare their performances.

Algaoud and Lewis (2007) measured the performance of Islamic banks by means of experimental analysis. The characteristics of Islamic banks and their financial performance where they had analyzed fourteen Islamic banks in eight different countries through regression analysis, depending on the following variables; ROA, ROE and profit before tax to total assets, he found that the greater equity to assets ratio and loans to assets ratio are reacted with GDP that increase profit margins. They found that the higher capital to assets ratio leads to greater profit; also concluded (NNIM) has positive relation with overheads which explains the rise in banks earnings with further distribution of salaries and expenses.

However, there is a negative effect on the determinants of profitability except NNIM with the size of the banking system.

Another study by Ndu and Wetmore (2002) has been made; in this study the performance of commercial banks in US from 1997 to 2002 was examined. He classified the commercial banks into three groups which are small, medium and large depending on assets. He used ROA ratio, income of interest, NII and provision loan losses to measure profitability; he also examined which of these groups of banks has more profit. Eventually, he concluded that the small banks are more profitable than large banks. Additionally, he found that profit in small banks had decreased more than in any other categories since 1999; medium banks had high profit in the same period. The first interval of this study was in the period between 1997 and 2000when all groups appeared to have the same ratios of ROA, nevertheless, small banks had greater Interest margin rather than other categories. In the second interval was in the period between2000 and 2002. He found that Interest margin was the lowest in small banks and the highest in larger banks, in addition, the highest loan loss was in large banks.

Čihaek and Hesse (2008) investigated the performance of financial analysis in order to evaluate stability of Islamic and Conventional banks. Their study has chosen a sample of twenty countries depending on Banks cope that contained Islamic and conventional banks. They have classified the Islamic and commercial banks according to the size of assets to less or more than a billion dollars. By using standard of stability "Z-score", which measures the financial sustainability of banks, the study highlighted that small

Islamic banks are more stable than both small and large commercial banks, and the large commercial banks are more stable than large Islamic banks.

In addition to studies that tried to evaluate the performance of Islamic bank; a study by Beltagy (1997) aims to find standards to evaluate Islamic banks' performances in order to identify the extent, which Islamic banks achieved their goals through the use of a model that contains a number of standards and measurement tools, and applied these standards to a sample of Islamic banks. This study concluded that there are no accounting standards to be used in the performance evaluation in Islamic banks. The Islamic Development Bank strives to accomplish the formation of Accounting and Auditing Organization for Islamic financial institutions to find private standards for Islamic banks. Beltagy distributed the Islamic banks to levels of performance with several findings and recommendations.

Haq (1996) study discussed the problems of performance of Islamic banks and mechanisms of evaluation throughout a series of papers. He descriptive systematic steps and stages evaluate the performance of Islamic banks, the work of legitimate oversight bodies in Islamic banks, the economic role of Islamic banks, administrative aspects of Islamic banks, accounting aspects of Islamic banks and assess the social role of Islamic banks. As shown in this study, the need to continue criticism and evaluation was emphasized in order to find out the inefficiencies of Islamic banks. Therefore, to overcome these inefficiencies it was proposed to use statistical analysis methods based on the survey, by dividing the work to teams, which were spread over to several banks that aimed to conduct personal interviews. Finally, researcher concluded to create

standards in order to evaluate the economic and social role, accounting, administrative system and legal bodies.

From the economic aspect, it is suggested to include several criteria such as the Impact of Islamic banks' investments and the impact of activity on the banks of income distribution, the balance of payments in the Islamic countries, and their impact on increasing employment opportunities. Furthermore, it is suggested by social aspect to add the following items as projects, which meet the social needs, such as the role of the Zakat Funds, interest-free loans and giving advantages to customers which have low income. The study concluded that, many results including the deposits represent a high proportion of the total available resources, contrary to the ratio of equity where the total resources are low. Investment deposits represent the major percentage of total deposits, low proportion of long-term investments to total investments and high proportion of Murabaha method of the total investments. Finally, the study highlighted the role of Islamic banks in strengthening the National Investment as a secondary outcome.

Another study by Javed et al (2015) have been made to assess the financial performance of Islamic banks in Malaysia and Pakistan, where the study was applied from 2008 to 2012, where data from the financial statements of the banks were collected. The researchers used the inductive approach in this study and collected a sum of indicators to assess the performance of assets. The study pointed out that there is a continuous increase in the rate of return on equity which shows that Islamic banks follow a strategy to maximize equity. Also, that the financial solvency ratio for assets and for deposits in the Islamic banks did not reach high rates, but the researcher focused on financial

performance evaluation of the most important components of the financial statements without specifying a particular way in performance evaluation.

Some studies focused on assets and management of liabilities such as Sheikhothman and Faheds' study (2009), this study aimed to evaluate assets and management of liabilities in conventional and Islamic banks, focusing on assessing the liquidity and profitability factors. The study sample included equal range of traditional and Islamic banks in Jordan from 2000 to 2008 and collected data from secondary sources and analysis of banks' financial statements. The researcher used descriptive analysis method with correlation of coefficients and regression analysis. He found out that; there is a strong correlation between assets and liabilities of conventional and Islamic banking return on equity ratios close in both Islamic and conventional banks and degree of risk in Islamic banks is low compared to traditional banks.

A study by Godlewski et al. (2010) was published to assess the competition conditions between Islamic and conventional banks. The researcher depended on several traditional indicators such as competition in the market index, and the index of market power (Lerner index). Godlewski's study was performed in the period between 2000 and 2006, he concluded that regarding Islamic banks, the competition was weak but has significant positive impact when correlated with high degrees of profitability. However competition is more considerable in conventional banks, compared to Islamic banks.

In addition to that, KamerAlden (2008) evaluated the productive efficiency of Islamic banks and Islamic branches of traditional banks in Malaysia. This study evaluated the

efficiency of Islamic banking operations by using the efficiency of costs and gains for the Islamic banks, as well as the Islamic products in local and foreign banks by applying the method of data analysis and types of efficiency such as allocative efficiency, technical efficiency, and efficiency of bank size, that describes the difference between cost and profit efficiency, in the various Islamic banks. The study pointed out that Islamic banks are more efficient in controlling costs than generating profits.

Kosmidou et al (2005) have estimated the financial efficiency of conventional and cooperative banks; they took sixteen cooperative banks and fourteen commercial banks. He had classified banks to large and small banks that depend on total assets. There evaluation by used CAMEL approach based on total equity to total assets, earnings before tax to total asset, earnings before tax to equity, and loans to assets, they used various criteria in his estimation. They found out that conventional banks are more likely to increase their share of market.

Moreover, Qurrahdaghe (2009) explained the problems that Islamic banks face and he proposed solutions for them in his study. He also discussed the determinants of Interest rate that is prohibited in Islamic banks and the challenges in capital determinants. Lastly, he found that sharing of profitability may be an alternative solution for Interest rate. However, he concluded that in transaction, third party should be included as insurance and hedging to protect from changes of currency exchange rates.

To examine efficiency of Islamic banks a study by Yudistira(2003) has been made. This study was an empirical study that was applied to 18 banks. He searched for a fixed base

and efficient data in Islamic banks and tried to find out the proposed criteria of the Islamic banks that measure their efficiency. He explained how Islamic banks had suffered from globalization and how they faced the challenges and their developments. The researcher proposed some criteria to organize the size of merger in Islamic banks. The study concluded that many conventional banks shifted to Islamic banks or opened Islamic branches.

Authors Iqbal and Khan (1998) discussed banking operations and the challenges that were faced. Researchers reviewed the Islamic banking in practice. In their study, several issues were highlighted including that there are several prominent factors which cause conventional banks to shift into Islamic banks. The study investigates several Islamic banks between the years 1994 and 1996 and reveals the fundamental challenges Islamic banks are facing. Some of these challenges were the lack of appropriate institutional framework through globalization, the merger between Islamic banks and issues related to aspects of legitimacy.

Some papers work on determining the factors that affect the profitability of banks, such as Berger (1995); he also found out that there is a positive relationship between profit and capital of the banks. His research focused on determining the relationship between capital and earnings of US commercial banks in the period from 1983 to1989. Berger had used regression analysis to correlate capital and Return on Equity. Then he re-analyzed for the 1990-1992 period, because of some changes in laws and regulations of commercial banks. Berger had achieved several findings; the most important of them are the following:

- There is a strong positive relationship between profitability and capital in US commercial banks between the years 1983 and 1989.
- There is an inverse relationship between profitability and capital in US commercial banks over the period between 1990 and 1992.

Besides these crucial findings, Berger concluded that there is a positive relationship between profitability and capital when the capital is less than the optimal level, and there is a negative relationship between profitability and capital when the capital is greater than optimal level.

Another study by Imam and Kpodar (2010) aims to determine the factors of Expansion of Islamic banks in the world. The study used a model containing the main factors that affect the degree of spread of Islamic banks, such as the proportion of Muslim population, the average Income per person, the real interest rate, the events of eleventh of September, oil prices, the degree of integration with the countries of Middle East, the geographical distance from Islamic financial centers such as Bahrain and Malaysia, and the degree of development of domestic financial system. The study has shown that the average income per person had a significant role in the spread of Islamic banks, depending on the demand of the community to increase financial intermediation via Islamic institutions. In addition to that, the degree of competition in the banking system has significantly positive impacts in the spread of Islamic banks around the world.

Al-Najjar (1995) analyzed profitability and sources' transactions for Islamic banks of Egypt. The study dealt with the theoretical aspect of Islamic banks and the differences

between conventional and Islamic banks. She obtained profitability analysis indicators through analyzing Islamic banks' balance sheets. The study had been applied to three Islamic banks between 1983 and1993.

Furthermore, Iqbal (2001) had made comparison between Islamic and conventional banks in 1990s. Her study aimed to close the gap in the data from 1990 to 1998, the researcher used multiple hypotheses to find the results of the comparison during the study period. This research was evaluated by analytical equations and some of research goals had been accomplished.

In addition to these, some studies had been done to analyze risks in Islamic banks. Al-Saadi's (2010) study was one of these studies. She discussed risks resulting from the liquidity in Islamic banks; the study took the period from 2004 to 2008 in Jordan. The researcher has concluded that Islamic banks have a surplus of liquidity.

There are some researchers which studied the behavior of customers for using Islamic banks such as Eroul and Elbdour's (1989) empirical study. This research relied on cross-sectional data by making a questionnaire to a sample consisted of 434 individuals in a facility in 1987. The results showed that there is a strong relationship between religious motives, the selection of personnel and economic activities within the banks. Also, the relationships between personnel and community members have an important role in selection of clients within the Islamic banks. However, distribution of banking services that distributed geographically with increasing number of branches do not have that much great impact in increasing the use of services offered by Islamic banks.

Some studies had examined the efficiency of conventional banks against Islamic banks such as a paper by Hassan et al. (2009) the aims of their study were to discuss the differences on the level of efficiency cost, revenue and profit of conventional banks versus Islamic banks. Also, it aims to examine the impact of size on cost, and profit over revenue efficiency of the banks. This study was applied to 40 banks of Organization of Islamic Conference countries from 1990 to 2005 and obtained a cross-country estimated data compiled from the financial statements. This paper concluded that there is no significant difference between the overall efficiency of conventional and Islamic banks. On average, Islamic banks are more efficient in using their resources compared to their ability to generate revenues, yet the size and age factor did not have significant influence on the efficiency scores in both banking streams.

Another study had examined efficiency of Islamic and conventional banks in Pakistan by Saeed et al. (2013), this study used analysis of ratios on sample of 19 banks over the period of 2007-2011. However, they have concluded that conventional banks were performing better than Islamic banks.

There are many studies that mention the impact of governance factor on profit of an organization. Wu et al (2009) found significant and negative correlation between size of board of directors and the financial performance of financial corporations.

On the other hand, Yung (2009) who used panel regression method analysis, concluded that the size of board of directors has a huge effect on profitability and good governance

of banks. Additionally, authors Goddard et al. (2004) pointed out to the existence of a negative correlation between capital adequacy ratio and bank performance.

In addition to that result, Pasiouras and Kosmidou (2007) highlighted that higher capital adequacy ratio would decrease the needs to external funds and would result into having higher profits.

Furthermore, Zimmerman (1996) concluded in his study that most management decisions were focused in loan portfolio to assess the performance of banks, where the good performance of banks depended in level of management quality. Bourke (1989) found out that the staff and operation expenses appeared to have a negative effect on return on assets ratio while Molyneux (1993) concluded that the staff expenses have a positive effect in total profits.

Chapter 3

BACKGROUND REVIEW

3.1 Conventional Banking versus Islamic Banking

The commercial banks are strongly effective in many ways, such as their relation to the development rate, influencing the rate of reserve and potential to create a credit. Commercial banks take the role of cash which impacts the economic activity, allowing them to play an important and active position in the economic and financial systems. The commercial banks are one of the pillars of the economic sector, their main function is to accept cash deposits from customers of all categories, and many other services of the commercial banks is to provide collection of checks, bills of exchange and deduction, to open letters of credit, to issue bank guarantees, and to sell foreign currency and travelers checks. However, there are many difficulties and problems in the system of commercial banks, and many attempts are in progress to achieve the main role of the development of the local economy.

Conventional and Islamic banks contribute in transferring money from savers to borrowers. Islamic banks are financial institutions which specialize in business investment and finance, where financial services are based on Islamic law of contracts that contribute to the savings, development and reconstruction. In addition to that, Islamic banks invest directly or indirectly through legal contracts, as well as mechanisms

of instruments, investment portfolios, the collection of savings and investment by investment deposits. Funding individuals, companies and institutions are also included in this system for the sake of trading and for manufacturing and making profits by Murabaha and Istisna contracts. One of the Islamic contracts, Ijara (leasing) that ends with ownership and achieves liquidity in some cases through the Salam contracts under the 'Shariah' (the Islamic law). It also offers special services to save the deposit and rental funds required for finance and other services like trade, contracting conversion, guarantee services, opening credit, and achievement of social development through some Islamic social work such as the Zakat from shareholders and depositors and the grantee of interest-free loans to those who meet the required conditions (Rahman, 2009).

The interest rate which is called 'Riba' and speculative contracts "Girar" are prohibited in Islamic principles. Moreover, trading in alcohol, tobacco and all products containing pork are also prohibited (Shafaat, 2005).

The Quran says "O you, who have believed, do not consume usury, doubled and multiplied, but fear Allah that you may be successful." "Allah has permitted trade and has forbidden interest".

Some articles discuss the difference between IB and CB depending on their source of funds and the risks that they have to face.

3.1.1Conventional Banks and Islamic Banks

The functions and operating modes of conventional banks are entirely based on manmade principles. Investors agree on a certain interest rate and the aims of

maximizing profits without any limitation. Conventional banks had never worked with Zakat contract; it works with the process of lending and retrieving money in compound interest, which is the fundamental function of the conventional banks. Moreover, conventional banks can charge additional money for using compound interest rate. The sources of funds in conventional banks are divided in two methods; the first includes inside sources such as equity (capital), reserves and profits which are distributed. The second method is external resources such as deposits, loans and investments.

Risks that conventional banks face:

- Credit risk which is related with quality of assets and probability of defaults, it focuses on loans that have the highest average of defaults.
- Liquidity risk appears when banks can not cover their liabilities in maturity; it refers to the ability of a bank to borrow money.
- Interest rate risk refers to the sensitivity of change in cash flow that occurs in the levels of interest rates.
- Operation risk is related with the bank's activities in technology. The main role of the bank to avoid this risk is by depending on a strong control system.
- Exchange rate risk, capital risk and solvency of risk

On the other hand, the sources of funds in Islamic banks are also divided into two categories; the first category is inside resources, such as equity (capital), reserves and distributed profits. The second category is external resources, such as demand deposits, investment deposits, saving deposits and Islamic bonds "Sukuk".

The risks that Islamic banks face are similar to the conventional banks' with some additional risks:

- Liquidity risk, which occurs because Islamic banks do not earn money by interest rate like CBs do.
- Market risk occurring in IB because of the volatility in prices, at levels of products, services, securities and prices of currencies. For IBs this is a strong risk because they cannot trade in speculative contracts.
- Credit risk occurs on the IB's activities in contracts depending on profit sharing and losses. This risk appears when banks cannot earn from the interest rate.
- The risk of commercial displacement appears when IB banks cannot offer the same return of deposits rate compared with the other banks that leads to the withdrawal of the costumer's deposits.
- Confidence risk in Islamic banking appears because of the poor knowledge of the concept of IB.
- Risk trust appears when banks disagree with the contracts of investment deposit and the management of investor's funds. (Rahman, 2009).

3.2 Contracts of Islamic Banking system

Nowadays, Islamic banking and finances are growing faster in the world. In each of the Islamic financial institutions, lending and development of financial Islamic products are available. The significant roles of these financial instruments depend on the Islamic law "Shariah". This system of Islamic banking use different methods compared to

conventional banks. For example; IB avoids interest rate in their transactions. Furthermore, the profits and losses depend on physical investments which are shared between savers and lenders via specific contracts. The major principal of Islamic banking is that their prohibition of interest rate "Riba", which is originated from the Arabic language, exceeds the prohibition of an interest rate and it also indicates that money should not be considered as an instrument of unjustified profit of earnings. (Siddiqi, 2006).

3.2.1 Structure of Equity

As Dr.Shafaat states that Riba "Any increase in the loan required by the lender as a condition for advancing the loan. Islamic banking offers several financial instruments that are considered a kind of equity such as Musharakah and Mudaraba contracts, which are lending contracts that depend on the concept of shared profits and losses and they refer to the profitability of physical investments where IB is the creditor.

Additionally, conventional banks are interested in investment's profitability, because of their fears of default interest rate payments, while IB focuses on direct profitability from physical projects (Shafaat, 2005).

- **Mudarabah*(finance by way of trust):***

This contract depends on shared profits or equity, as well as using a partnership between two parts. The first one is "Rub Al mal" who finances the project or all expenses in investment, the second party is called "Mudareb" he who has experience in the given project and can manage the investment.

This contract should explain the distributed shares of profits and losses where the profits are distributed there in a fixed or predetermined ratio. Islamic banks or Islamic

financial institutions usually have the capital for investments that play a role of "Rub Al mal "and in some cases Islamic banks enter this contract as "Mudareb" (Mirzhaywire, 2013).

The Mudarabah is mentioned in Figure 1.3

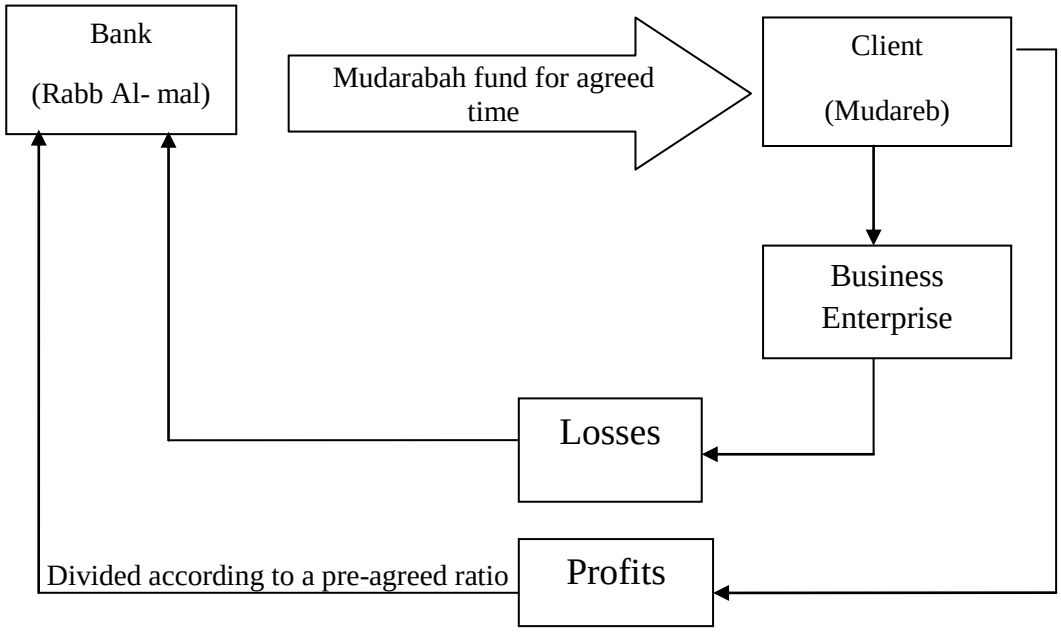

Figure 1.3 Mudarabah
Source**:** Mirzhaywire (2013)

- **Musharaka*(partnership):***

This contract is considered to be the most popular in Islamic finance; it depends on principal of shared profits and losses. All parties are exposed to risks within the project. The capital of the project should be clearly predetermined in the contract. For that, profits are distributed between partners according to the predetermined ratio, while losses are distributed depending on the capital proportion of each partner. In this contract, all parties have a right yet not an obligation to be a part of the project

management. Islamic banks and Islamic financial institutions offer a percentage of capital for investments to the customers that would like a share in the project under an agreed ratio (Mirzhaywire, 2013).Musharakh is mentioned in Figure 2.3.

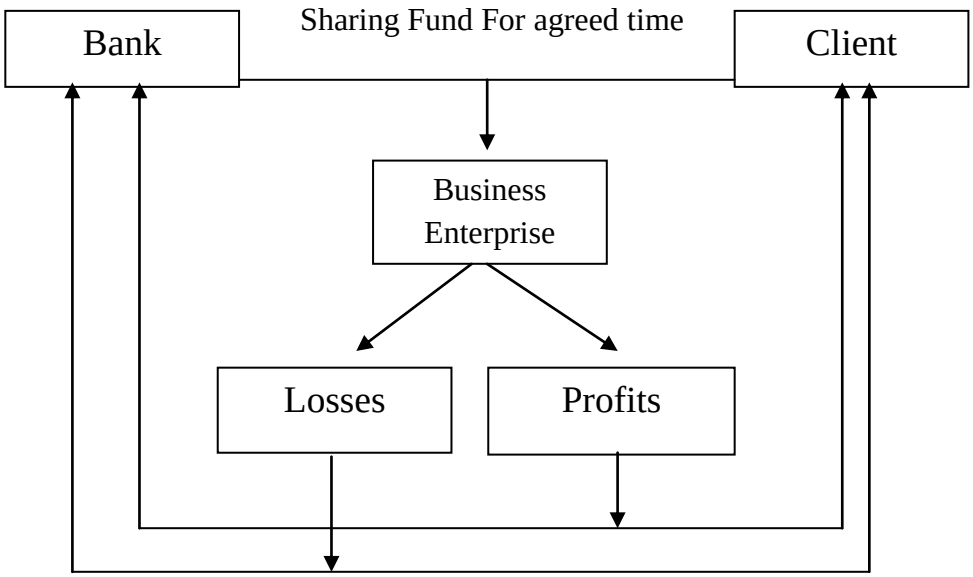

Figure 2.3: Musharaka (partnership)
Source: Mirzhaywire (2013)

3.2.2 Structure of debts

- **Murabaha*(cost-plus financing):***

Murabaha in Islamic finance is similar to lending with interest rate in conventional banks. However, there is a difference between profit margins of Murabaha contract and lending contract of conventional banks. El-Gamal (2006) gave an example that states: seeking and purchasing the required goods at the best price and the mark-up is not stipulated in terms of a time period. Thus, if the client fails to make a deferred payment on time, the mark-up does not increase the agreed price owing to delay. Also, the bank

owns the goods between the two sales, which mean it carries the associated risks. Murbaha is mentioned in Figure 3.3.

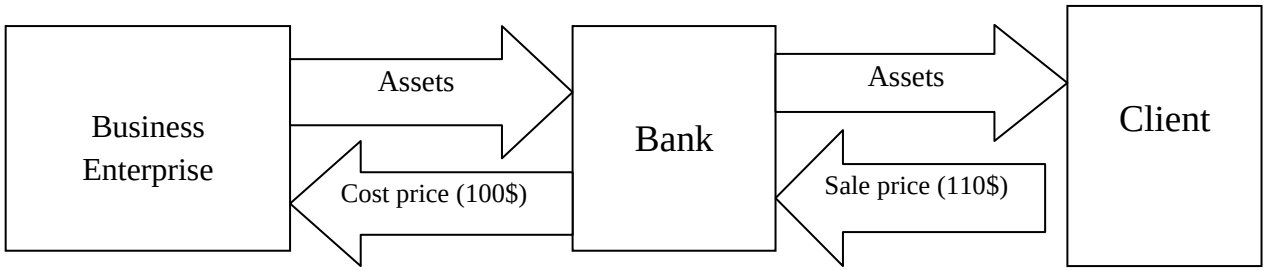

Figure 3.3: Murabaha (cost-plus financing)
Source: El-Gamal (2006)

- **Ijara*(leasing)***

This contract is a leasing contract where Islamic banks have the right to use goods such as factories, type of equipment and buildings. In Ijara contract, assets are still owned by the Islamic bank, which means the assets are still under their responsibility so the bank carries the risk for it during the leasing period, and the customer does not have an option of buying an asset during the Ijara contract. Therefore, in the end of the period, the ownership will transfer from the bank to the customer. Additionally, it is closer to the operation of conventional banks that provides equipment in the leasing contact that will finish with ownership (Haron and Azmi, 2009).

Ijarah is mentioned in Figure 4.3.

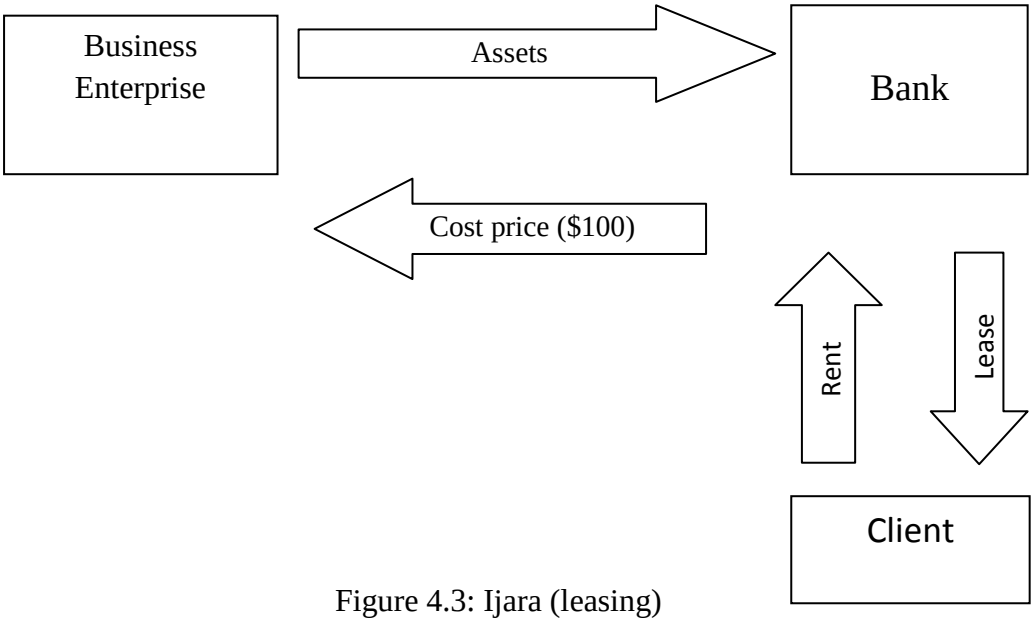

Figure 4.3: Ijara (leasing)
Source: El-Gamal (2006).

- **Salam *(advance purchase):***

This contract is the process of selling specific goods that are to be delivered in the future with received payment. Nowadays, this financial transaction is made by money transfer or with cash payment to the trader, who represents the bank and is responsible to deliver the specific goods at the agreed time, while the payment is received in advance. This kind of transaction is usually used in the agricultural sector. Haron and Azmi, 2009).

- **Istisna'a (commissioned manufacture):**

Istisna'a contract in Islamic banks are usually used in the finance investments of construction sector. This contract in Islamic bank represents a seller who sells goods to the customer who represents a buyer that requires specific goods. Although, Istisna'a contract is similar to Salam contract (where the customer is asked to buy the specific good at the agreed price made from the seller's own raw material) the only difference is

that, payment is not made in advance like the Salam contract, instead it is made at the end of the contract (Sandstad, 2009).Istisna'a is mentioned in Figure 5.3.

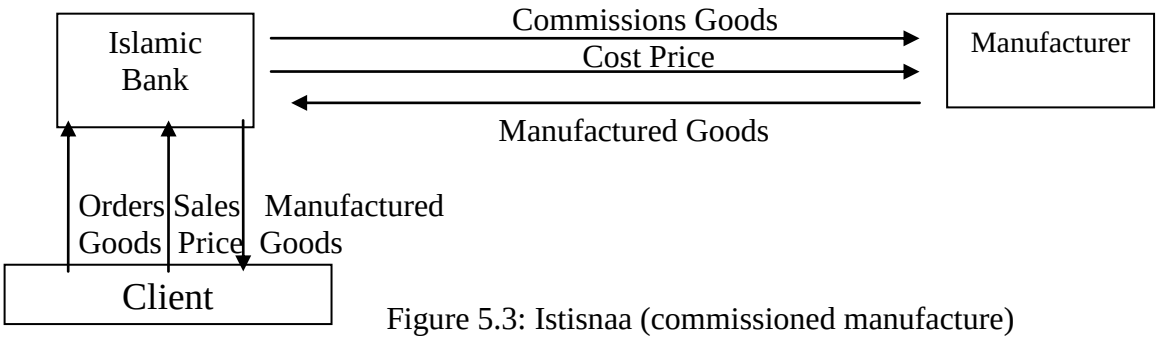

Figure 5.3: Istisnaa (commissioned manufacture)
Source: Sandstad (2009)

- **Qard Hasan (loan with free interest rate):**

Qard Hasan is a financial transaction provided by Islamic banks. This is a loan without interest rate to help people on the short term. The borrower has an obligation to repay the loan to the lender who represents Islamic banks at the end of maturity (El-Gamal (2006). Qarad Hasan is mentioned in Figure 6.3.

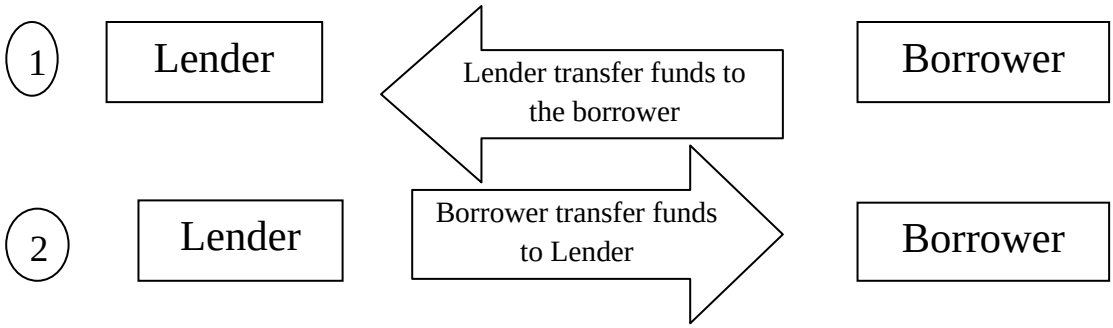

Figure 6.3: Qard Hasan (loan with free interest rate)
Source: El-Gamal (2006)

3.3 Countries overview

Islamic banking system is not restricted only in Islamic countries that deal with Islamic methods. There are some secular countries that deal with Islamic transactions as well. Turkey for example, acknowledged that Islam is the common religion of about 98% of country's population; it is still considered as a secular republic.

Furthermore, the common religion in the Middle East is Islam. However, Tunisia and Syria are also considered as secular republics like Turkey, while the Gulf countries such as Qatar, Kingdom of Saudi Arabia, Kuwait, and some of East Asian countries like Malaysia, Indonesia, and Singapore are considered as Islamic republics. According to a research written by an Asian Banker Group, there are over than 300 Islamic financial institutions that are distributed in 75 countries around the world. The 100 largest worldwide Islamic banks have set annual assets growth rate of 26.7% while the annual average growth of global Islamic financial industry is between 15% - 20% (Aggarwal, 2000).

Islamic finance country index (IFCI) depends on the Global Islamic Finance Report which declares that the rank of countries dealing with Islamic banking and finance. Rank of countries dealing with IB in 2013 and 2014 is displayed in Table 1.3(Humayondar, 2014).

Table 1.3: Rank of countries dealing with Islamic banking and Islamic Finance in 2013 and 2014 by total Shariah-compliant assets

Country	Rank 2014	Country	Rank 2013
Iran	1	Iran	1
Malaysia	2	Saudi Arabia	2
Saudi Arabia	3	Malaysia	3
Bahrain	4	United Arab Emirates	4
Kuwait	5	Kuwait	5
United Arab Emirates	6	Bahrain	6
Indonesia	7	Qatar	7
Sudan	8	Indonesia	8
Pakistan	9	Bangladesh	9
Qatar	10	Turkey	10
Bangladesh	11	Sudan	11
Turkey	12	Pakistan	12
United kingdom	13	Switzerland	13
Egypt	14	Egypt	14
United states of America	15	Brunel Darussalam	15
Jordan	16	Thailand	16
Brunel Darussalam	17	United kingdom	17
Yemen	18	Jordan	18
Lebanon	19	Iraq	19
Singapore	20	Yemen	20

Source: Humayondar, 2014

Turkey:

Turkey is a secular republic where the local currency is Turkish Lira. Islamic banks are called participation banks in Turkey. The sector of Islamic banking and financing is good for the economy with GDP growth of 3.7% in 2014. An increase in Islamic banking sector in 2012 led to an increase in Islamic banking assets by 25%, where conventional banks' increased only by 13%. Furthermore, a continuous growth of Islamic banking sector was observed with the announcement of new Sukuk in 2013. Currently, there are 4 Islamic banks with a market share of 51% (70.3 billion TRY out of total 1.37trillion TRY banking assets) and their annual growth rate had reached 33.5% between the years 2005 and 2012. In the future, two more Islamic banks will be added to the financial sector in Turkey with a market share of 15 % which is planned to be accomplished by 2023 (IRTI, 2012). Turkey depends on certain indexes of participation banks such as KATLM index and compliant index. These were established in 2011 and depend on accounting and auditing organization for Islamic financial institutions (AAOIFI) in Bahrain (Islamic research and training institute (IRTI,2012).

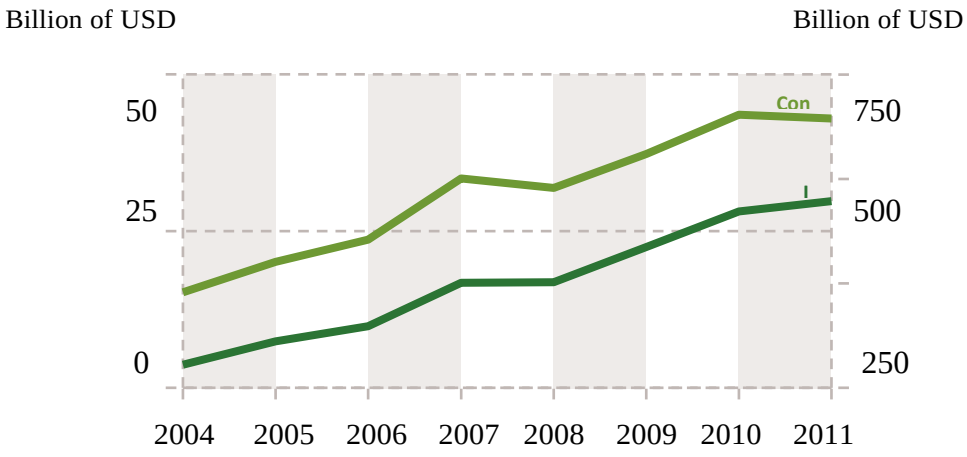

Figure 7.3: Islamic banking assets in Turkey
Source: IRTI, 2012

The growth and share in Islamic and conventional banks during the period 2004 to 2011 is shown below in Figure 8.3.

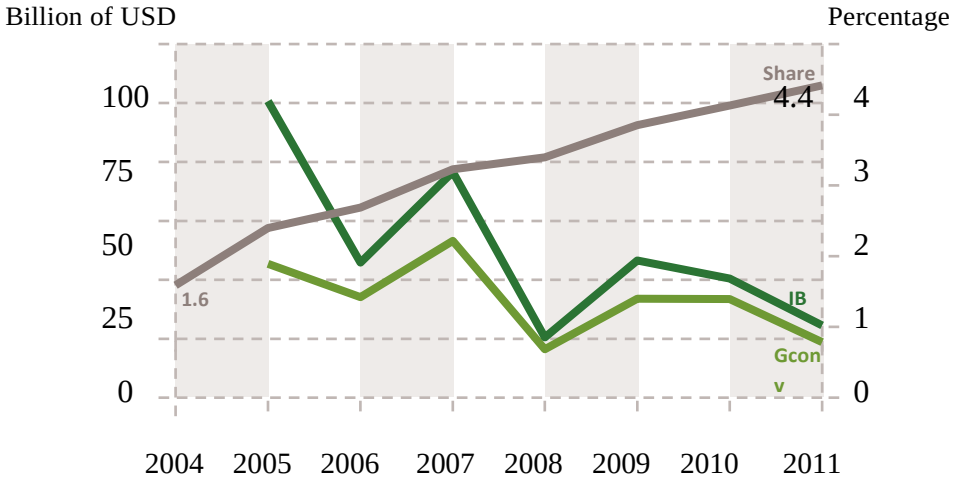

Figure 8.3: Growth and share for Islamic banking in Turkey
Source: IRTI (2012)

Additionally, the growth of ROA and ROE between Islamic and conventional banks appeared in Turkish participation, and conventional banks have almost the same level of operation efficiency which is indicated by the same average of ROA at around 1.6%. However, the participation banks generate higher ROE around 18.5% where conventional banks generate 16.2% (IRTI, 2012).

ROA and ROE for IB and CB in Turkey over the period of 2004 to 2011 are mentioned in Figure 9.3

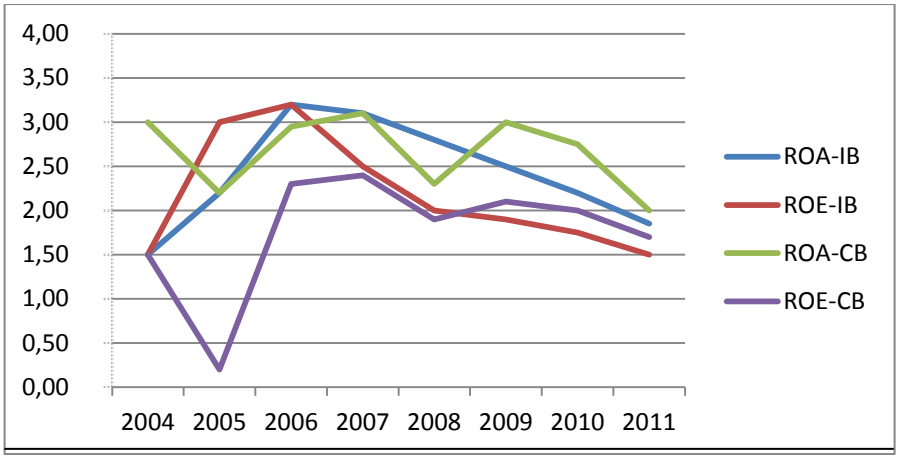

Figure 9.3: ROA and ROA for IB and CB in Turkey
Source**:** IRTI, 2012

Qatar:

Qatar has huge and fixed economy and their currency is Qatari Riyal (QAR). Qatar has met an increase the demand of investments in infrastructure projects that were funded by credit financial corporate before 2022 World Cup (Watkins, 2015). Dr. Damak, the global head of Islamic finance and S&P states that "Islamic banks in Qatar compete rather well with their conventional peers, with their main edge being the ability to offer products that are compliant with clients' beliefs, which conventional banks in Qatar can no longer do." He adds, "We understand that a portion of the government sponsored projects is to be financed by Islamic financial products alone, and the combination of these two factors means that Islamic banks in Qatar tend to evolve in a relatively protected environment."Furthermore, he added that "The S&P which estimates the market share of Islamic banks in Qatar grew to 16 percent in 2013 from 13 percent in 2010. The Islamic banks strongly contribute to various development projects. This increased interest of Qatar central bank, faced several challenges about the development in Qatar. These challenges lead to writing of a chapter entirely devoted to Islamic

financial institutions in the Law of the Qatar Central Bank. Moreover, they have been providing a framework of adequate regulation and supervision, taking specified Islamic financial products into account (Watkins, 2015). ROA and ROE for IB and CB in Qatar over the period of 2008 to 2013 are mentioned in Figure 10.3.

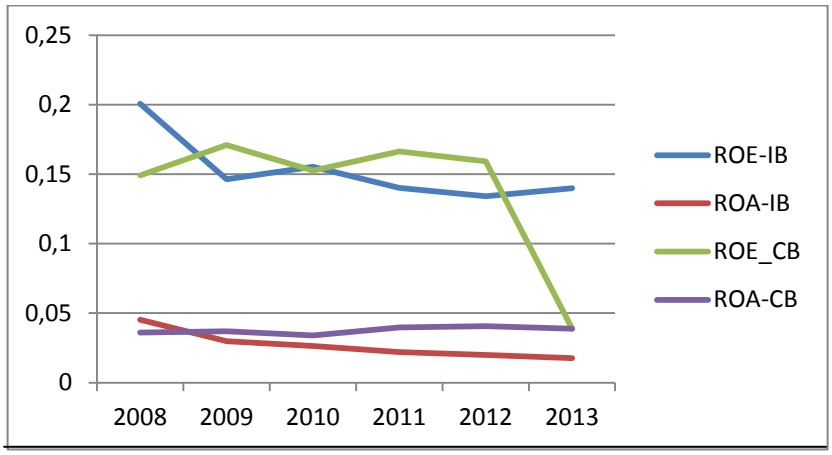

Figure 10:3 ROA and ROE for IB and CB in Qatar

Egypt:

In Egypt first Islamic banking was established in 1963 by the founding of local saving banks that held financial transactions according to Islamic law. In 1971, the Nasser Social Bank (NSB) was formed and became the first governmental Islamic bank. The growth of the economy was considered stable before the revolution in 2011, and when the Muslim Brotherhood rose to the power in 2012, they wanted to give Islamic banking priority. Islamic banking has contributed to a certain level of flexibility in risk management by giving priority to participation (risk sharing) over lending and borrowing. The rise of Islamic banking inspirits some conventional banks to open Islamic branches while many others started offering Islamic services and products

(Elise, 2015). The percentage of conventional banks which providing an Islamic service is mentioned in Figure 11.3.

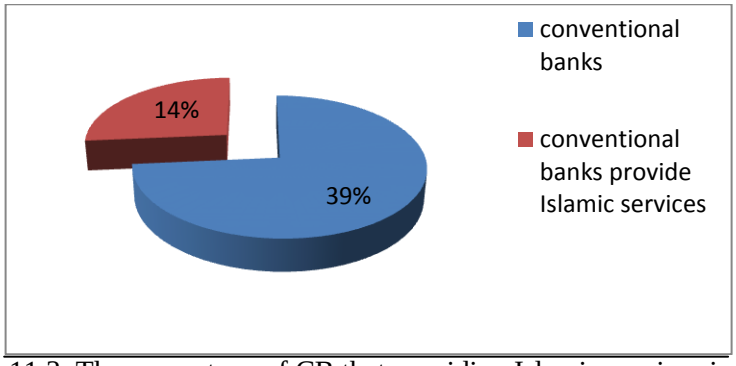

Figure 11.3: The percentage of CB that providing Islamic services in Egypt
Source: Elise (2015)

Before the Egyptian revolution in 2011, the Islamic banking share in the Egyptian market was approximately evaluated as 5%. However after the revolution in 2014, the Islamic banking activities reached about EGP 125bn and the share of Islamic banking was rated as 7% while in 2013 the growth rate was measured as 10% (Elise, 2015). The change in ROA and ROE for IB & CB during the period between 2008 to 2013 in Egypt is shown inFigure12.3

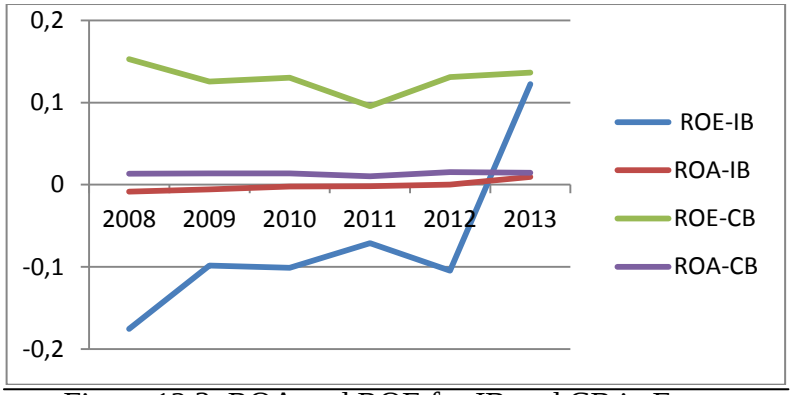

Figure 12.3: ROA and ROE for IB and CB in Egypt

Pakistan:

In the end of 2013, Pakistan announced that they had annual growth rate of 12.3% over the previous year, and forecasted that the services of Islamic finance in 2014 will be about $1.813 trillion in the global Islamic market. A financial report that was published in 2014 announced that in the last previous years the growth rate of Islamic banking had been over 30% and with this rate it exceeded the expectation of the central bank of Pakistan. The central bank of Pakistan established a four year plan to increase the branches of Islamic banks throughout the country and the value of the market share from 10% up to 15%. The main and largest bank in Pakistan is MEEZAN bank. Additionally, the central bank aims to achieve a market share of about 20% by 2018 through an increase of 2% each year (Humayondar,2014). The growth of Islamic banking in Pakistan is shown in Figure 13.3.

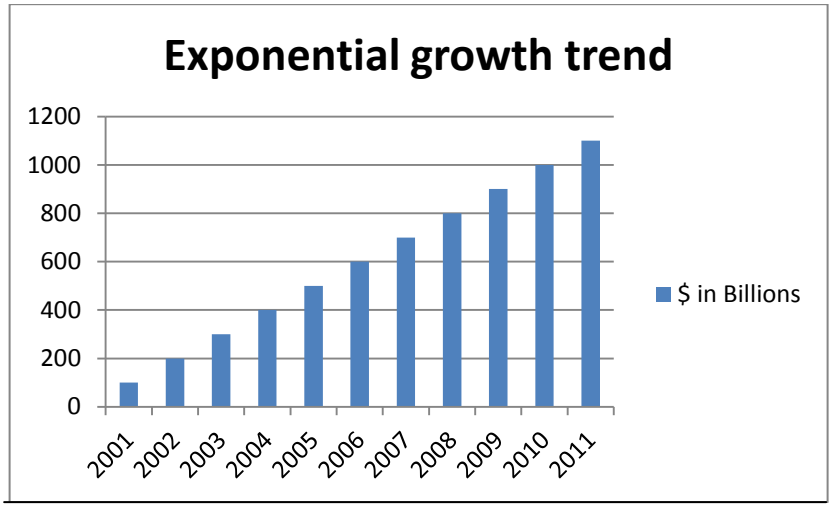

Figure 13.3: Global assets of Islamic finance in Pakistan.
Source: The Banker Survey

The change in ROA and ROE for Islamic and conventioanl banks during the period between 2008 to 2013 in Pakistan is shown in Figure14.3.

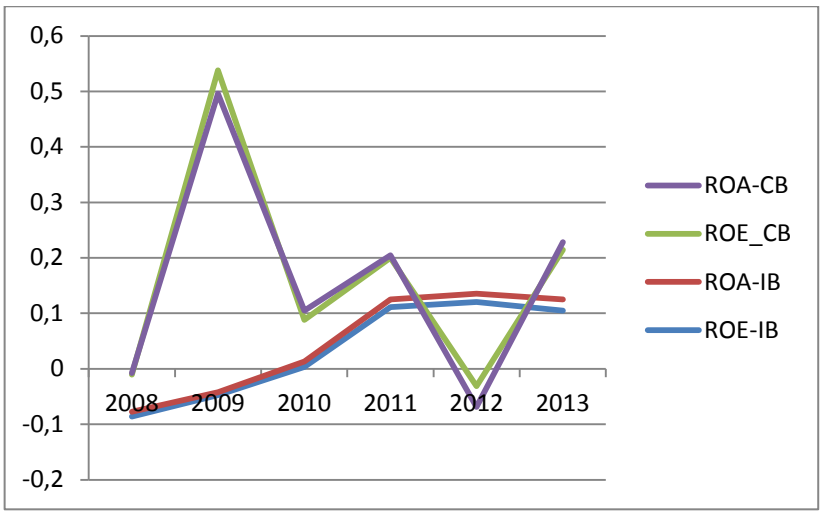

Figure 14.3: ROA and ROE for IB and CB in Pakistan

Malaysia:

Malaysia has been dealing with the Islamic Banking and financing systems for over30 years. First Islamic bank in Malaysia was established in 1983. Nowadays, Islamic banking has an increasing growth rate due to various factors that support the increase of Islamic financial products. In addition to this, it provides services like Islamic investments that adopt the regulations of Malaysia (Bukair, 2015). Furthermore, Malaysia's strong impact on the development of capital and products of Islamic banking places them to the second rank, after Iran, in Islamic banking throughout the world. Currently, Malaysia has a huge number of Islamic financial institutions owned by foreign corporations and conventional banks that provide Islamic branches with

Islamic services. This encourages foreign companies to open Islamic investments and institutions that trade with foreign currencies (Aggarwal, 2000).

The change in ROA and ROE for Islamic and conventioanl banks during the period between 2008 to 2013 in MAlaysia is shown in Figure15.3

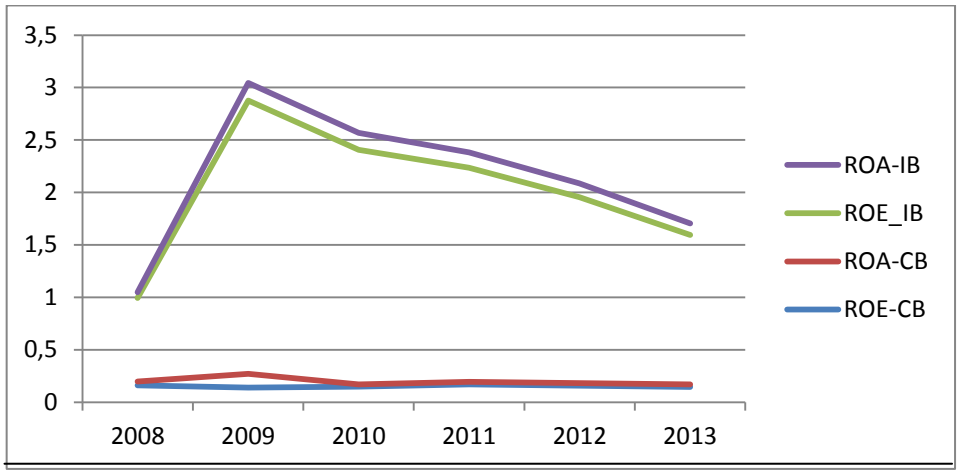

Figure 15.3: ROA and ROE for IB and CB in Malaysia

Chapter 4

DATA AND METHODOLOGY

4.1 Data

This study deals with the empirical analysis by the use of panel data on profitability of Islamic and conventional banks. The data is collected from financial reports and income statements of Bankscope, meaning that the financial ratios are used to perform comparative analysis.

The data is from the period starting from 2008 and ending in2013 for five countries (Malaysia, Pakistan, Egypt, Qatar and Turkey).In this study we used 108 banks and classified them into two groups as Islamic banks(42 of them) and conventional banks(66 of them), with an observation number of 648. All banks' names are shown in the appendix.

4.2 Methodology

In this study using stationary test, we examined the correlation between variables, heteroskedasticity test and used regression analysis of whole data with Eviews software program. Eviews program is used to analyze the financial performance in profitability and governance, and we compared the results between Islamic and conventional banks via this software.

The variables applied in this study are classified into dependent and independent variables:

Dependent variables: Return on equity (ROE) and Return on asset (ROA)

Independent variables:

1- Total Equity over Total Assets (Capital Adequacy)
2- Liquid Assets over Deposits (Liquidity Quality)
3- Provision Loan Losses to Total Loans (Asset Quality)
4- Cost to Revenue (Earnings Quality)
5- Loans over Deposits (Management Quality)
6- Size of Board Of Directors (Governance)
7- Logarithmic of Total Assets.

$$ROE=\alpha_1+\beta_1(TETA)_{t1}+\beta_2(LLPTL)_{t2}+\beta_3(LD)_{t3}+\beta_4(CR)_{t4}+\beta_5(LIQD)_{t5}+\beta_6(LTA)_{t6}+\beta_7(BOD)_{t7}+\varepsilon \quad (1)$$

$$ROA=\alpha_1+\beta_1(TETA)_{t1}+\beta_2(LLPTL)_{t2}+\beta_3(LD)_{t3}+\beta_4(CR)_{t4}+\beta_5(LIQD)_{t5}+\beta_6(LTA)_{t6}+\beta_7(BOD)_{t7}+\varepsilon \quad (2)$$

Where:

ROA: Return on Assets

ROE: Return on Equity

CR: Cost to Revenue

TETA: Total Equity to Total Asset

LLPTL: Loan Losses Provision over Total Loans,

LD: Loans to Deposits

LTA: Logarithmic of Total Assets

LIQD: Liquid Assets to Deposits

BOD: Size board of director

E: Error term.

α_1: alpha (constant) for each model respectively.

$\beta_1,\beta_2,\beta_3,\beta_4,\beta_5,\beta_6,\beta_7$: Beta coefficients of the regression equation.

Moreover, this study used CAMEL approach and used regression equation to evaluate the financial performance for Islamic and traditional banks. Furthermore, this study will also compare the results between two types of banking systems depending on 108 banks selected from different countries. The profitability ratios are very important when measuring the profits and performance of the banks. Usually previous studies, such as Algaoud and Lewiss' study (2007), used the profitability ratios. He analyzed 14 Islamic banks through regression analysis depending on ROA, ROE and profit before tax to total assets. In addition to that, this study uses an asset's quality as a dependent variable as the reflection of the quantity of existing and potential credit risk associated with the loan and investment portfolio. In addition, this equation uses an Earnings Quality ratio where the high earning quality reflects the earning that will continue for a long period. Another important ratio that was used in this equation is Management Quality. This is the ratio of the planned services and products of bank to services and products that meet the requirements of customers, this reflect banks' profitability. Finally, this study examined the impacts of governance on profitability on banks. Many previous studies pointed out the importance of this variable for assess of banks' performance, such as Yung (2009),

who used panel regression method analysis and concluded that the size board of directors and good governance of banks has a huge effect on profitability.

4.2.1 Dependent Variables

ROE:

Return on equity is a profitability ratio calculated by the dividing the net income to total equity. It measures the percentage income return of the shareholders' equity. In other words, this ratio exhibits the percentage of profit generated from the investments of shareholders' equity. In other words, this ratio is directly proportional to the performance indicator, therefore decrease in this ratio reflects low performance of the bank, and increase reflects high performance of the bank. Before calculating ROE ratio, it should be determined whether to use the beginning period of equity or the average of the period between beginning and the end of equity. However if the ROE ratios of different banks are equal, this does not mean that they have shown similar performance, because an increase in borrowing means an increase in liability which results in a decrease in equity. Thus, the return is affected by structure of debt and leverage. Subsequently, we should calculate the return on assets (ROA) as a complement of this measure. This study estimates that ROE has a negative impact, depending on a study inducted by Wasiuzzaman (2013).

ROA:

Return on assets is a profitability ratio calculated by dividing the net income to the total assets. It is a measure of net income return percentage of the management efficiency of assets. Furthermore, this ratio indicates if the assets

are efficient to generate returns. The increase in this ratio generates an increase in profits. Shareholders pay really close attention to this ratio because it indicates the profit of the bank, clarifying the performance of the management to make profits by using total assets. This study estimates that ROA has a positive impact depending on a study inducted by Wasiuzzaman (2013).

4.2.2 Independent Variables:

1- Capital adequacy:

This ratio that illustrates the relationship between sources and risks of a capital; it can be defined as the possibility of a bank's insolvency, where the decrease in likelihood of insolvency means increase in degree of solvency. This ratio measures the capital of banks and is used to determine the eligible capital and risk weight loss (RWA), to keep the satiability of financial system by avoiding the risks in assets including market risk, credit risk and operation risk. Capital adequacy ratio should be at least 8% depending on BASEL I and BASEL II. To calculate total equity is divided by the total assets. TETA (Total equity to total assets) is a variable that measures the capital of banks as a percentage. Consequently, an increase in this ratio leads to reassured depositors. In other words, banks should be confident in achieving their goals of investment and money savings to succeed their individuals and investors. This confidence comes through retaining capitals, to be able to face any risk, and managing the funds without causing any negative effects on the creditors. (Greenspan, 1998)

2- Asset Quality:

Loans in general are considered as assets in the balance sheet and they are the main sources of profit of the banks. However, asset quality explains the level of credit risk. Therefore, a bank should be able to identify, measure and control the risks to be able to evaluate the quality of assets, while taking the level of provision loan losses into account. Hence, the quality of assets is a sensitive and important factor for the investors. An asset quality review is considered to be the key attribute of the different asset portfolios of the bank, evaluating the quality of a bank's assets. This ratio is calculated through dividing the provision loan losses by total loans (PLLTL) (Ben, 2014).

***3- Management Quality**:*

This variable measures the efficiency of banks 'activity as well as the quality of planning and implementations of banks' activities to obtain more deposits. Therefore, management quality analyzes and evaluates each of the following; the governance depending on the decisions from the board of directors and the human resources through their impacts on customers. Additionally, it evaluates procedures, monitoring, auditing of the information system which estimates the system's performance in providing accurate annual reports on the specific time, and management's strategic plans that determine whether the banks are able to develop their systems for financial anticipations. Management quality is calculated through dividing total loans by the total of deposits (LD).

***4- Earnings Quality**:*

Profit is the main goal for any bank. Therefore all banks seek to enlarge their profits by using profit indexes. This variable is calculated through dividing the operation cost by the revenue of banks (CR). It measures the efficiency of the revenue, hence higher this ratio, the lower the bank's ability to generate operation profits. Thus quality and quantity of the results determine the profit indexes. Earning quality expresses the ability to generate profits, the level of stability for profits and the level of operation costs (Ben, 2014).

5- Liquidity Quality:

This variable is measured by dividing the liquid assets by the total deposits (LIQD).This measures the capacity of liquid assets (such as cash) when banks face their liabilities. Liquidity quality is the main index that customers depend on to compare banks. This is what distinguishes banks from other financial institutions that banks cannot postpone checks, postpone payments of payable deposits and cannot force depositors to pay their loans before the end of the maturity. It is also difficult for a bank's management to forecast the time and quantity of bank's funds, whether inside or outside source of funds.

Generally, liquidity is the ability to change assets to money in a short period of time without any losses, the ability of bank to meet withdrawals of depositors and bank's liabilities on the specific time without the need to sell their securities in low prices or without borrowing a loan with high interest rates. There are many factors which determine the liquidity of a bank, such as the resources and uses of bank's funds, the average of volatility of deposits (whenever the volatility

is high the customer may transfer their money to another bank), the maintenance of financial securities and return impacts, the willingness of the bank's management to face risks (increase in this ratio means an increase in the banks' performance (Borkpb, 2009).

6- Size of the board of director (Governance):

In general, governance is the structure of any organization where, it represents the stakeholders' behavior such as shareholders and the board of directors. It grants efficiency by monitoring over the corporation. Hence, governance should increase the bank's system effectiveness. This study examines the impacts that difference in size of the board of directors has on the bank's profitability (BOD). The evaluation of management quality through governance evaluates the work of the board of directors depending on experience and decision making.

7- Logarithmic of total assets (LTA):

This variable is used to make regression analysis through considering the total assets as absolute number. The aim is to find out any differences between conventional and Islamic banks by their performance measures.

Islamic banks have the Shariaa compliant which as a criterion to measure their performance. This criterion is the main variable that distinguishes Islamic banks from conventional banks. Customers who deal with Islamic banks are closely interested in this criterion.

There are several technical, financial and administrative items that evaluate a bank's performance by CAMEL approach, and these items can be applied for both Islamic and conventional banks but only with a small difference in the transactions of Islamic banks. However, all banks are considering about applying new and more sophisticated monitoring tools to contribute into identifying the deviations and cases of shortcomings, before they occur. All banks should analyze the results of CAMEL approach and display their results in annual reports to customers to gain a high level of transparency (Seren and Baz, 2010).

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Chapter 5

EMPIRICAL ANALYSIS AND RESULTS

After the explanation of the data and methodology in the previous chapter. This chapter will discuss the empirical analysis and the results for this comparative study regarding the correlation and regression analysis.

5.1 Stationarity Test:

By using panel root test, stationary tests are applied for the data of each of the Islamic and conventional banks. Moreover, the methodologies by Levin, Lin and Chu (LLC), the test for unit root in Level and hypothesis are:

H_0: The panel data has a unit root, is not stationary.

H_1: The panel data has no unit root, is stationary.

However, according to methodologies by Levin, Lin and Chu (LLC), the data rejected the null hypothesis which means that there is no unit root in the whole model. In other words the data are stationary. Results of stationary test are shown in appendix.

In this study we used correlation analysis to observe the level of correlation between independent variables and used fixed-effect model for regression analysis after examining Fixed – Random effect test by the use of Husman test.

5.2 Correlation Analysis:

The variables are into three groups; all banks, conventional banks and Islamic banks. The correlation analysis is used to find the relationships between variables, and to test multicollinearity problem which clarifies whether the correlation between independent variables is a strong correlation or not. However, the correlation analysis is used to anticipate the level of correlation between independent variables, which are based on the CAMEL approach, and dependent variables, that are indicated as profitability ratios. In this study we examined the correlation analysis for each group separately. Furthermore, this study has tested the multicollinearity in the regression model, regarding the correlation between independent variables in our model; independent variables in our model are low and as well as the R-square. So this leads to the conclusion that there is no multicollinearity problem in our model.

The correlation for the first group (all banks) is shown in Table 2.5

The correlation for the second group (conventional banks) is shown in Table 3.5

The correlation for the last group (Islamic banks) is shown in Table 4.5.

Table 2.5: Correlation analysis for all banks

Correlation	ROE	ROA	TETA	LLPTL	LD	CR	LIQD	LTA	BOD
ROE	1.0000								
ROA	0.2023	1.0000							
TETA	-0.0339	0.3427	1.0000						
LLPTL	-0.0078	0.1840	0.6356	1.0000					
LD	-0.0992	-0.2013	0.1381	-0.0878	1.0000				
CR	0.0644	0.0734	-0.0178	-0.0234	-0.0097	1.0000			
LIQD	-0.1288	-0.0344	0.4671	0.3698	0.1485	0.0438	1.0000		
LTA	0.1155	0.1312	-0.1821	-0.0859	0.0978	-0.0345	-0.3763	1.0000	
BOD	0.0015	-0.0590	-0.1737	-0.1841	0.0936	0.0089	-0.0529	0.1177	1.0000

Regarding to the first group (all banks), there is a weak negative relation between return on equity(ROE) and the independent variables asset quality and management quality ,capital adequacy and liquidity quality meaning that, increase in ratios of independent variables leads to an decrees in return on equity ratio. Moreover, there is a weak positive relation between return on equity, size of board of director as well as earnings quality and, which means that increase in independent variables leads to increase in return on equity. Furthermore, return on assets (ROA) has a weak negative relationship with management quality, liquidity quality and size of board of director while it has a weak positive correlation with asset quality, capital adequacy and earnings quality.

Table 3.5: Correlation analysis for conventional banks:

Correlation	ROE	ROA	TETA	LLPTL	LD	CR	LIQD	LTA	BOD
ROE	1.0000								
ROA	-0.0227	1.0000							
TETA	-0.2646	0.1739	1.0000						
LLPTL	-0.3013	-0.7534	-0.0164	1.0000					
LD	-0.1925	-0.2517	0.3302	0.2773	1.0000				
CR	0.0782	0.0875	-0.0191	-0.0206	-0.0235	1.0000			
LIQD	-0.2340	-0.1415	0.4336	0.2355	0.2732	0.0480	1.0000		
LTA	0.0820	0.1278	-0.1582	-0.0574	0.0590	-0.0698	-0.5063	1.0000	
BOD	-0.0570	-0.0101	-0.0538	0.0008	0.0673	-0.0111	-0.0300	0.1061	1.0000

Regarding to correlation analysis for second group (conventional banks), there is a weak positive relation between return on equity (ROE) and earning quality ratio, and a similar result has been found by Berger (1995) that there is positive relationship between profits and earnings in US commercial banks, while the rest of independent variables have a weak negative relation with return on equity. Moreover, (ROA) has a weak negative

relationship with LLPTL, LD, LIQD and BOD while it has a weak positive correlation with capital adequacy and earnings quality.

Table 4.5: Correlation analysis for Islamic Banks

Correlation	ROE	ROA	TETA	LLPTL	LD	CR	LIQD	LTA	BOD
ROE	1.0000								
ROA	0.5863	1.0000							
TETA	0.0989	0.6104	1.0000						
LLPTL	0.0126	0.3910	0.7518	1.0000					
LD	0.0696	0.0114	-0.1414	-0.3179	1.0000				
CR	-0.0166	-0.0966	-0.1090	-0.1339	0.0414	1.0000			
LIQD	-0.0254	0.1621	0.5237	0.5585	-0.3102	0.0812	1.0000		
LTA	0.1104	0.1187	-0.2621	-0.1200	0.1855	0.0704	-0.2072	1.0000	
BOD	0.0404	-0.2004	-0.3161	-0.3021	0.1766	0.1138	-0.1022	0.0676	1.0000

Finally, regarding to correlation analysis of Islamic banks, there is a positive correlation between profitability variables and TETA, LLPTL and LD meaning that increase in independent variables leads to increase in dependent variables. At the same time there is a low positive relation between profitability variables and the size of board of directors. This result has been shown by Saeed et al. (2013) who made his research to assess the financial performance of Islamic banks in Jordan; his study pointed out that there is a continuous increase in the rate of return on equity which shows that Islamic banks follow a strategy to maximize equity.

5.3 Heteroskedasticity Test

The assumption of heteroskedasticity is central to linear regression models. Heteroskedasticity describes a situation in which the error term is the same across all values of the independent variables. Heteroskedasticity (the violation of

homoscedasticity) is present when the size of the error term differs across values of an independent variable. The impact of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroskedasticity increases. Recall that ordinary least-squares (OLS) regression seeks to minimize residuals and in turn produce the smallest possible standard errors. By definition OLS regression gives equal weight to all observations, but when heteroskedasticity is present the cases with larger disturbances have more "pull" than other observations. The coefficients from OLS regression where heteroskedasticity is present are therefore inefficient but remain unbiased. In this case, weighted least squares regression would be more appropriate, as it down weights those observations with larger disturbances.

Heteroskedasticity occurs when the variance of the error terms differ across observations. If the standard errors are biased, we cannot use the usual t-statistics or F-statistics or LM statistics for drawing inferences. OLS, even if standard errors could be correctly measured, is no longer efficient. In this study we made the heteroskedasticity regression analysis for all groups, we found that there is no heteroskedasticity problem that the hypotheses are:

$H_{0:}$ There is no heteroskedasticity

H_1: There is heteroskedasticity

Table 5.5: Results of heteroskedasticity test for first group (All banks)

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.819184	Prob. F(7,243)	0.5721
Obs*R-squared	5.786519	Prob. Chi-Square(7)	0.5649
Scaled explained SS	124.5858	Prob. Chi-Square(7)	0.0000

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.016598	Prob. F(7,243)	0.4247
Obs*R-squared	7.657867	Prob. Chi-Square(7)	0.3644
Scaled explained SS	128.5674	Prob. Chi-Square(7)	0.0000

Table 6.5: Results for heteroskedasticity test for second group (Conventional banks)

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.324675	Prob. F(7,387)	0.2371
Obs*R-squared	8.768767	Prob. Chi-Square(7)	0.2709
Scaled explained SS	188.6216	Prob. Chi-Square(7)	0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.264983	Prob. F(7,387)	0.2665
Obs*R-squared	6.896875	Prob. Chi-Square(7)	0.4402
Scaled explained SS	135.6566	Prob. Chi-Square(7)	0.0000

Table 7.5: Results for heteroskedasticity test for third group (Islamic banks)

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.465786	Prob. F(7,243)	0.1801
Obs*R-squared	8.757689	Prob. Chi-Square(7)	0.2711
Scaled explained SS	134.5647	Prob. Chi-Square(7)	0.0000
Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.543276	Prob. F(7,243)	0.1533
Obs*R-squared	11.65787	Prob. Chi-Square(7)	0.1123
Scaled explained SS	176.7569	Prob. Chi-Square(7)	0.0000

5.4 Regression Analysis:

Regression analysis was applied for Islamic and conventional banks on financial and governance ratios, and this analysis explains that the impacts of change in the independent variables is determined by dependent variables (ROA and ROE) or profitability ratios.

In this study our panel data was examined through Husman-test to determine if the model is a Fixed-effect or a Random-effect model. Therefore, according to Husman-test this study used fixed-effect model. Then it was estimated that there are three regression analyses through Fixed-effect model. The first one is for all banks, which consists of both Islamic and conventional banks that regress profitability variables. The second one is the regression analysis of conventional banks and the last one is the regression analysis for Islamic banks. Finally, after regression analyses the results were compared. The values of constant coefficients and P-values for all banks, conventional and Islamic banks are shown in Table5.5.

5.4.1 Regression Analysis for All Banks:

Firstly, the study examines the regression analyses and shows the impacts of their financial performance for all banks over the duration of 2008 to 2013.

In this model we have two dependent variables (ROA and ROE ratios) that indicate the profitability of banks. In the first regression, there is a significant negative correlation between dependent variables and (LIQD) which means that when the independent variables increase, the dependent variables decrease. In other words, when liquidity quality is increased, the profitability ratios will decrease. While there is an insignificant

negative correlation between dependent variables and (BOD), where the authors Cheng Wu et al. (2009) have come up with same results as well, stating that there is a negative correlation between the size of board of directors and the performance of financial institutions.

Moreover, in this regression analysis, (LLPTL) has a significant negative correlation with ROA. This means that, increasing the assets quality ratio leads to decrease in return on assets. In addition, capital adequacy has significant negative correlation with return on equity and significant positive correlation with return on assets.

Furthermore, management quality (LD) has a significant relation with profitability ratio, where (LD) has a negative correlation with (ROE and ROA). On the other hand, (CR) has insignificant negative correlation with (ROE) and positive correlation with (ROA).

Additionally, we can say that the size of logarithmic total assets (LTA) does not have an effect on the determinations of profitability ratios for the group of all banks, because of its statistical insignificance between the years 2008 and 2013.However, F-test probability value is statistically significant and R-squared is not very high (between 0.48 and 0.53).

5.4.2 Regression Analysis for Conventional Banks:

The regression analysis for conventional banks uses Fixed-effect model regression. In this model it was noted that capital adequacy ratio (TETA) has a significant negative correlation with ROE while it has a significant positive correlation with ROA, which means that an increase in the capital adequacy will result in a decrease in return on

equity and increase in return on assets, the same results were found by Goddard et al. (2004) who mentioned that there is a negative correlation between total equity to total assets ratio with the banks' performance. However, if a bank has a high capital adequacy ratio, this means that the bank depends on the equity to finance rather than loans. Hence, authors Pasiouras and Kosmidou, (2007) mentioned that, banks with higher total equity to total asset ratio will have lower needs for external funding and therefore higher profitability. Additionally, liquidity quality ratio (LIQD) has insignificant positive relationship with ROA and negative significant relation with ROE which means that increase in liquidity quality ratio will also lead to decrease in return on equity. This result is consistent with previous study conducted by Kamer Alden (2008); they found that there is a statistically significant positive correlation between the profitability of commercial banks with both liquidity and capital. Moreover, asset quality ratio (LLPTL) has a significant negative correlation with profitability variables, which means that an increase in LLPTL will lead to a decrease in profitability ratios.

Furthermore, Management Quality ratio (LD) has a significant negative correlation with ROE which means that the management's decisions depend on loan portfolio. Additionally, earnings quality ratio (CR) has insignificant negative correlation with ROE and ROA. Similar result was founded by Zimmerman (1996); his study expected that the staff expenses will have a negative correlation with profitability ratios because the costs reduced the total operation of banks. Finally, the change in the size of board of directors has a negative relation with the return on equity, while it has a positive relation with return on assets, which means that an increase in the number of board of directors will

lead to decrease in ROE and increase in ROA. This is the same result that was found by Wu et al. (2005).

After estimating the regression analysis for conventional banks, the study showed that the profit's indicators were affected in a negative way with assets quality, earnings quality and management quality ratios, while the change in the size of board of directors was affected positively only regarding to return on assets. On other hand, capital adequacy, and liquidity quality ratios are affected in a negative way by return on equity ratio. In addition to that, the governance factor is affected in a negative way from return on equity.

5.4.3: Regression Analysis for Islamic Banks:

The regression analysis of Islamic banks was estimated for the period starting from 2008 and ending in 2013. In Islamic banks, the profitability variables have a significant positive correlation with capital adequacy (TETA), earnings quality (CR), while they have insignificant positive relation with the size of board of directors (BOD). In addition, capital adequacy ratio has opposite results for conventional banks which have a positive relation to the return on equity.

Furthermore, profitability variables have a negative correlation with assets quality (LLPTL) and liquidity quality (LIQD) ratio, meaning that an increase in earnings quality ratio and assets quality ratio will lead to a decrease in profitability ratios; similar results were found in a previous study done by Saeed (2013) who found that Islamic banks are relatively more efficient in controlling costs which leads to generating more profits.

This comparative study concluded that capital adequacy ratio (TETA) has a positive correlation with profitability ratios in Islamic banks, which is the opposite conclusion of conventional banks which have negative correlation with just return on equity.

Additionally, asset quality ratio (LLPTL) has significant negative relation with return on assets in Islamic banks; where LLPTL ratio will reduce earnings before tax (EBIT). Moreover, asset quality ratio has the same result in conventional banks where there is a significant negative correlation with dependent variables.

Regarding to management quality ratio, (LD) has insignificant positive correlation with return on assets while it has insignificant negative with return on equity, which means that an increase in investment securities and financing activities will decrease in ROE and increase in ROA.

The measure of management quality LD in Islamic banks depends on investment securities rather than loans; which is the method used in conventional banks where LD has a negative correlation with profitability indicators.

In addition to that, liquidity quality ratio (LIQD) also has a significant negative relation with ROA and insignificant negative relation with ROE, this is the opposite conclusion found for conventional banks with return on assets, meaning that an increase in liquidity quality ratio will show a decrease in profitability indicators. Furthermore, earnings quality ratio (CR) has a significant positive relation with ROE which means that an

increase in earnings quality ratio will lead to an increase in ROE and that is the same result found by Bourke (1989).

The effect of the change in size of the board of director in Islamic banks is reverse in conventional banks; in Islamic banks there is a positive correlation with profitability indicators, and same result was found in a previous study by Iqbal (2001) who states that there is a positive correlation between the size of the board of directors and the financial performance. While in conventional banks there is a negative correlation with return on equity (ROE); the same result was also found in a previous study by Yung (2009) who used panel regression method analysis to conclude that the size of the board of directors has a huge effect on profitability and efficient governance of banks.

However, F-test probability value in Islamic banks is statistically significant, R-squared is high that between 0.51 and 0.79for conventional banks while it is between 0.62 and 0.84 in Islamic banks.

The Durbin–Watson statistic is a test statistic used to detect the presence of autocorrelation meaning a relationship between values separated from each other by a given time lag in the residuals (prediction errors) from a regression analysis.

$H_{0:}$ The errors are serially uncorrelated

H_1: First order autoregressive process

This statistic can be compared with tabulated rejection values. These values are calculated dependent on *T* (length of the balanced panel—time periods the individuals

were surveyed), *K* (number of regresses) and *N* (number of individuals in the panel). This test statistic can also be used for testing the null hypothesis of a unit root against stationary alternatives in fixed effects models using another set of bounds.

If d = 2; that is, if there is no serial correlation (of the first-order), d is expected to be about 2. Therefore, as a rule of thumb, if d is found to be 2 in an application, one may assume that there is no first-order autocorrelation, either positive or negative.

If d ≈ 0. Therefore, the closer d is to 0, the greater the evidence of positive serial correlation.

If d ≈ 4. That is, there is perfect negative correlation among successive residuals. Hence, the closer d is to 4, the greater the evidence of negative serial correlation.

Null hypothesis: No positive autocorrelation, Reject when 0 < d < dL

Regarding for first group there is no autocorrelation with ROE that Durbin-Watson = 2 while for ROA is above 2 meaning that there is auto- correlation.

Durbin-Watson in the second group is above 2 for ROA and ROE meaning that there is negative autocorrelation and we cannot reject null hypothesis

Regarding for Islamic banks group, Durbin-Watson is less than 2 for ROE and ROA and there is positive autocorrelation.

To avoid some of the pitfalls of the Durbin–Watson d test of autocorrelation, statisticians we can use test of autocorrelation that is general in the sense that it allows for nonstochastic regressors, such as the lagged values of the regressand or higher-order

autoregressive schemes. In this study used a short period and panel data that not significant to use lag for autocorrelation as if serial correlation.

Table 8.5: Regression analysis for all groups depends on Fixed effect model:

	All banks		**Conventional banks**		**Islamic banks**	
	ROE	**ROA**	**ROE**	**ROA**	**ROE**	**ROA**
Constant coefficients P-value	-0.0163 0.9523	-0.0423 0.1168	0.0441 0.9443	-0.1930 0.0003	-0.2755 0.3523	0.0101 0.4649
TETA P-value	-0.5235 0.0602	0.2384 0.0000	-1.9307 0.0000	0.2713 0.0000	1.0063 0.0246	0.0452 0.0311
LLPTL P-value	-0.0036 0.6350	-0.0038 0.0000	-1.9495 0.0000	-0.5457 0.0000	-0.0082 0.2959	-0.0034 0.0000
LD P-value	-0.1238 0.0000	-0.0041 0.0495	-0.0407 0.06101	-0.0001 0.93651	-0.2482 0.0844	0.0086 0.1989
CR P-value	-0.0020 0.8802	0.0002 0.8402	-0.0045 0.7011	-0.0008 0.3759	0.3884 0.0170	0.0123 0.1052
LIQD P-value	-0.1690 0.00232	-0.0262 0.0000	-0.2941 0.0005	0.0066 0.3386	-0.0758 0.3055	-0.0134 0.0001
LTA P-value	0.0711 0.1700	0.0059 0.2407	0.1207 0.2982	0.0318 0.0011	0.0121 0.8358	-0.0024 0.36608
BOD P-value	-0.0045 0.5717	0.0007 0.3523	-0.0183 0.0340	0.0012 0.0814	0.0311 0.0270	0.0005 0.4069
F- statistic	4.2317 0.0000	5.0660 0.0000	4.3008 0.0000	15.5701 0.0000	6.2839 0.0000	20.9403 0.0000
R- squared	0.4891	0.5340	0.5109	0.7908	0.6283	0.8492
D-Watson	2.0150	2.9566	2.7997	2.7948	0.9904	1.2954

One of the most important functions of banks is the transformation of maturities, i.e. the ability to obtain funding from short term deposits so as to finance loans over a longer term. As a result of such behavior, banks are exposed to liquidity risk. Liquidity risk occurs when a bank is unable to cover its financial obligation when it is due without

bearing any costs. Hence, liquidity risk management can be defined as a regular process to guarantee that the expected and unexpected cash needs can be met at reasonable costs. While, on the liability side, liquidity risk arises when depositors withdraw their money at once or in large amounts, on the asset side, banks are vulnerable to liquidity risk if the demand in loans increases.

However, it is crucial to understand the authentic Shariah principles and main guidelines of Islamic banking in relation to liquidity risk. Also, an exploration of the key features of Islamic financial contracts and products in relation to liquidity risk constitutes a significant element in the mitigation of the magnitude of liquidity risk. It follows that the main challenge if is to provide supervision of high-quality services that satisfy the spiritual tenets and objectives of the Islamic banking system through the undertaking of specific techniques and policies.

Known cash flows: When the maturities and the amounts are known in advance. This category includes receivables from Murabahah and Ijarah contracts.

Conditional but expected cash flows: Such as Salam and Istisna, conditionality is defined in terms of the type of contract or performance of work based on the agreed terms and conditions over a specific period.

Conditional and unpredictable cash flows: In some cases, an investment in a Musharakah is for an open-ended period and an exit strategy may be assessed periodically. The redemption of invested capital and possible levels of return on investment is conditional upon the performance of conducting business.

Beside Islamic financial instruments, Islamic banks use some external instruments for providing liquidity, when needed, such as purchasing government or central bank instruments.

BODs' failures are the primary reason for the recent financial collapses, and Islamic banks are not spared from these events. Even though many studies have examined the influence of BODs effectiveness on the performance of conventional banking industry over time, studies on the Islamic financial institutions are quite scarce. In addition, the results obtained by the studies on conventional banks may not be applicable to Islamic banks. This is because the BODs of Islamic banks discharge their responsibilities and duties along with the existence of the Shariah supervisory board (a multi-layer structure), which is quite different from the Corporate Governance CG structure in conventional banks that is dependent on the BODs (a single-layer).

Islamic banking offers a different paradigm from conventional banking, and from the viewpoint of corporate governance, it embodies a number of interesting features since equity participation, risk and profit-and-loss sharing arrangements form the basis of Islamic financing. These financial arrangements imply different stakeholder relationships, and by corollary governance structures, from the conventional model since depositors have a direct financial stake in the bank's investment and equity participations. In addition, the Islamic bank is subject to an additional layer of governance which is carried out by the Shari'a Supervisory Board.

Chapter 6

Conclusion

According to Qurrahdaghi (2011), during 34 years, the number of Islamic banks has increased considerably reaching up to 400 banks around the world. This increase emphasizes popularity gained by Islamic banking system due to its ability to mitigate the risk during financial crises.

The aim of this comparative study is not to prove if either system is better than the other; it is to display the differences between conventional and Islamic financial systems. The interest rate is considered as a burden on finance and the profits are considered as outputs but not burden (Qurrahdaghi, 2011).Islamic banks have faced financial crises similar to the conventional banks, but the financial crisis in 2009 enhanced their role around the world, because Islamic banking system did not have mortgages to deal with according to their authority, legitimacy and accounting standards. Furthermore, Islamic banks are adapted o International Auditing Standards such as BASEL II and BASEL III.

This study have conducted the performance analysis for Islamic and conventional banking to show the differences between their profitability and governance factors over the period starting from 2008 and ending in 2013 in each of the following countries; Turkey, Malaysia, Qatar, Egypt and Pakistan. As shown in chapter 5, the decrease in cost and the size of the board of directors, for the group of all banks, will lead to an

increase in return on equity. During the period of this study, capital adequacy ratio in Islamic banking TETA has a significant impact on profitability ratios (ROE and ROA) and is used to enhance the efficiency of financial system. Moreover, assets quality ratio (LLPTL) in conventional banks management has a same effective in controlling credit risk in Islamic banks.

Furthermore, management quality (LD) ratio in Islamic banks has insignificant positive relation with return on assets. As well as, earnings quality ratio (CR) has a significant positive relation with return on equity in Islamic banks while it has insignificant negative relation with return on equity and return on assets in conventional banks. Liquidity ratio (LIQD) has a significant negative correlation with return on equity in conventional while it has significant negative correlation with return on assets in Islamic banks.

In general, Islamic banks cannot face liquidity risk as conventional banks; CB can deposit their excess of liquidity in other banks by current interest rate in the market where Islamic banks cannot because they do not deal with interest rate.

Another type of challenges that could face Islamic banks is liquidity risk, which is imposed from investing their funds in long term investments; this is why Islamic banks use higher liquidity rate. Borrowing from Islamic central banks is not allowed because of interest rate, and that affects the banks' profitability. Therefore, Islamic banking system should have a strong liquidity management to renew and create new products to invest their excess liquidity.

In this comparative study, the impacts of governance factor on profitability of Islamic and conventional banks were examined, and comparisons of the results were made afterwards. Subsequently, the change in the size of board of directors affects the profitability of various types of banks. It's concluded that change in the size of board of directors for both Islamic and conventional banks have positive effects on return on assets ratio.

It is known that the governance factor has become more important after the financial crisis in 2009 and is considered as a monitoring facility to protect shareholders by avoiding the problems before they are occur, with disclosure and transparency under the name of "Good governance" concept. Governance factor also points out the ways banks can manage risks with the help of board of directors. Since 2006, Bazel II issued the concept of "Enhancing corporate governance in banking organization". Bad governance will lead to an increase in the gap's expectation and create problems in profitability. Furthermore, it gives loans without analyzing the financial ability of borrowers. The concept of good governance differs from one organization to other; it depends on several aspects such as accountability, political sector, skills and leadership (Gisselquist, 2012). In this research, we can see that management efficiency has significant effect on Islamic banks unlike conventional banks, because Islamic banking system's loan portfolios are based on "Shariah" that prohibits the interest rate (Riba). Islamic banks can increase and enhance their growth of revenue by focusing on management of wealth, as illustrated by Watkins (2015): The focus should be on efficiency programmers to address their disadvantaged cost base plus increased service quality, lead-time improvement, and better risk management (Watkins ,2015).

A lot of Islamic financial institutions were established to enhance and support the Islamic financial industry such as Islamic Development Bank Group (IDB Group), Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) and International Islamic Financial Market (IIFM) (Algaoud and Liwes, 2007).

Where Islamic finance is a part of the international finance, it is seen that the profit percentage of Islamic banking products, such as Murabaha and Mubrabah, are close to interest rates of conventional banking. It is concluded that all financial operations of Islamic banks, whether long or short-term, should be increased in order to have a higher liquidity rate. Conventional banks are able to liquidate their assets faster than Islamic banks due to short-term investments. Worldwide increase in growth of Islamic banking sector is expected in the future by the financial industry worldwide.

Furthermore, many traditional banks are opening Islamic sub-divisions in their branches that deal with Islamic contracts; this is a strong indicator that Islamic banking system will continue to grow and develop in the upcoming years. Nowadays, the technological development contributes to the improvement of Islamic banking products. Due to these technologic developments Islamic banks provide new services to the customers to captivate their interest. The conventional and Islamic banking systems have similar policies and regulations around the world.

I expect Islamic banking sector to expand and develop more around the world with an increase in market share and my suggestion to Islamic banking sector that they should make their own rules regarding accounting, monitoring and supervision under Islamic law.

All Islamic banks in the world should follow standards and operations which are created and approved by central Islamic banks. Moreover, I suggest increasing investment in Islamic services not in just in Islamic countries but also around the world. I also suggest spreading awareness about Islamic finance as a type of financial system.

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Appendix

Names of all banks:

Country	Islamic Banks	Conventional banks
Malaysia	Bank Islam Malaysia	Malayan Banking
	AmIslamic Bank	CIMB Bank Berhad
	Hong Leong Islamic Bank	RHB Bank Berhad
	Bank Muamalat	Hong Leong Bank
	HSBC Amanah	United Overseas Bank
	OCBC Al-Amin Bank	AmBank
	Standard Chartered Saadiq	HSBC Bank
	Alliance Islamic Bank	OCBC Bank
	Al Rajhi Banking	Affin Bank
	Asian Finance Bank	Standard Chartered Bank
	Public Islamic Bank	
	CIMB Islamic Bank	
	Maybank Islamic Berhad	
	Affin Islamic Bank	
Qatar	Qatar Islamic Bank SAQ	Qatar national Bank
	Qatar international Islamic Bank	76atar76cial bank of Qatar
	Masraf Al Rayan (Q.S.C.)	Al Khaliji 76atar Bank
		International Bank of Qatar
		Doha Qatar Bbank

		Ahli 77atar bank
Turkey	Albaraka Turk Katilim	Turk Ekonomi Bankasi
	Asya Katilim Bankasi	Burgan Bank
	Turkiye Finans Katilim	Turkland Bank
	Kuveyt Turk	Turkiye Halk Bankasi
		Turkiye Vakiflar Bankasi
		Alternatifbank
		ING Bank
		HSBC Bank
		Akbank
		Anadolubank
		Garanti Bankasi
		Ziraat Bankasi
		Turkiye is Bankasi
		Denizbank
		Finansbank
		Sekerbank
		Citibank
		Fibabanka
		Tekstilbank-Tekstil Bankasi
		Arab Turkish Bank
		Deutsche Bank
		Bankpozitif Kredi ve Kalkinma
		Turkish Bank

Egypt	Faisal Islamic Bank	National Bank of Egypt
	Banque Misr SAE	Commercial International Bank
	Banque du Caire SAE	Arab African International
	Emirates National	HSBC Bank Egypt
	Abu Dhabi Islamic Bank	Bank of Alexandria
		Credit Agricole Egypt
		Bank Audi SAE
		Société Arabe Internationale
		Arab International Bank
		The National Bank of Kuwait
		Ahli United Bank
		Suez Canal Bank
		Barclays Bank
		BLOM Bank
		Egyptian Gulf Bank
		Union National Bank
		Piraeus Bank
		Arab Banking Corporation
Pakistan	First National Bank Modaraba	First Dawood Investment Bank
	First Habib Modaraba	NIB Bank Ltd
	Burj Bank	Standard Chartered Bank
	Dubai Islamic Bank Pakistan	Askari Bank Limited
	BankIslami Pakistan	Bank Al Habib
	Meezan Bank	United Bank Limited

	Bank of Khyber	National Bank of Pakistan
	Soneri Bank Limited	
	Bank of Punjab	
	Faysal Bank Ltd	
	Habib Metropolitan Bank Limited	
	Bank Alfalah Limited	
	MCB Bank Limited	
	Allied Bank Limited	
	Habib Bank Limited	

The results of stationary test for all banks:

Statistic Level	**ROE**	**ROA**	**TETA**	**LLPTL**	**LD**	**LIQD**	**LTA**	**BOD**
Levin, Lin & Chu t*	-81.0907	-149.132	-68.6239	-19.2980	-48.2166	-33.7805	-112.622	-33.1965
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Im, Pesaran and Shin W-stat	-20.5671	-23.3024	-15.1698	-3.69916	-9.33253	-8.00898	-42.6618	-8.79126
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ADF - Fisher Chi-square	620.030	481.585	535.934	303.041	423.935	429.665	770.074	387.707
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PP - Fisher Chi-square	758.410	583.071	674.994	367.245	511.377	529.730	826.786	497.467
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The results of stationary test for conventional banks:

Statistic Level	ROE	ROA	TETA	LLPTL	LD	LIQD	LTA	BOD
Levin, Lin & Chu t*	-67.0799	-140.313	-40.4870	-16.8526	-46.1632	-25.2704	-123.664	-29.4236
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Im, Pesaran and Shin W-stat	-18.2097	-22.4638	-10.4105	-2.83829	-8.49680	-6.92209	-51.2004	-7.98683
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ADF - Fisher Chi-square	382.889	287.439	331.986	176.667	261.883	284.190	589.937	263.804
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PP - Fisher Chi-square	452.820	364.920	432.228	215.293	310.838	349.333	618.224	355.080
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The results of stationary test for Islamic banks:

Statistic Level	ROE	ROA	TETA	LLPTL	LD	LIQD	LTA	BOD
Levin, Lin & Chu t*	-36.8134	-35.2300	-40.1537	-12.7519	-16.1196	-163.098	-0.57710	-9.19120
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Im, Pesaran and Shin W-stat	-9.54287	-9.82420	-5.53153	-1.93166	-4.37675	-15.8184	3.71807	-1.16922
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ADF - Fisher Chi-square	192.221	161.716	131.132	108.395	165.439	120.899	49.7455	80.5878
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PP - Fisher Chi-square	247.199	202.999	175.248	141.470	242.405	155.139	90.5789	102.546
P-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000