FACTORS DETERMINING PERFORMANCE OF BANKS. A COMPARATIVE ANALYSIS OF ISLAMIC AND CONVENTIONAL BANKING FIRMS IN PAKISTAN

By

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THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defence, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Management Sciences

Thesis Title: <u>Factors Determining Performance of Banks. A Comparative Analysis of Islamic and Conventional Banking Firms In Pakistan</u>

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Candidate of Master of Science in Business Administration at the National University of Modern languages do hereby declare that the thesis **Factors Determining Performance of Banks. A Comparative Analysis of Islamic and Conventional Banking Firms In Pakistan** submitted by me in partial fulfillment of MS degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my dissertation at any stage, even after the award of a degree, the work may be cancelled and the degree revoked.

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MUDASSAR RAUF

THESIS SUBMISSION APPROVAL FORM

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This thesis has been read by me and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and thus fulfils the qualitative requirements of this study. It is ready for submission to the Faculty of Advanced Integrated Studies and Research for internal and external evaluation.

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Date:

DEDICATION

I dedicate this research to my parents and especially to my father who is a real source of motivation and inspiration to me, not because he is my father rather because of his conduct, honesty, dedication towards his profession and way of living. No doubt due to special blessing of ALLAH and prayers of my parents today I am able to complete this study.

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I am especially thankful to my supervisor, Dr. Muhammad Asad Khan, whose constant support and guidance made this dissertation possible for me. I also acknowledge his soft, approachable attitude which had always been a source of great encouragement for me, especially in my most challenging times during the research. However, this study would not have been possible without the cooperation of few other individuals. That is my parents and HOD who took some burden off me regarding my domestic responsibilities during the research and supporting me, practically and psychologically, in every possible way until the completion of my thesis.

Thank you all very much!

ABSTRACT

Title: Factors Determining Performance of Banks. A Comparative Analysis of Islamic and Conventional Banking Firms In Pakistan

Islamic Banking (IB) industry is considered as an attractive substitute to the Conventional Banking (CB) system. The sustainability promised by the IBs and the recent experience of the economies with the conventional banking system has placed the Islamic Bank industry in a more substantial position to penetrate and consolidate in the industry. The IBs have presented new business techniques, product lines, risk mitigation tools and ways of business that are different from techniques prevailing in conventional Banking system. There is much debate on the comparative advantages of IBs over the CBs yet to mark a clear line between the two. This study conducted to compare and analyze the performance of CBs and IBs in Pakistan in order to determine the different performance measures of these banks in Pakistan. In order to examine the factors, determine the profitability of banking sector in Pakistan, the study collected data for 10 different banks which included 5 banks each from IB sector and CB sector of Pakistan. Data for all the variables under analysis was collected for a period of 7 years from 2010 to 2016. The data was then analyzed using multiple regression analysis technique and Independent Sample T test. The results of the regression model suggest that Assets Quality, Management Quality, Capital Adequacy and earning quality are important determinates of performance of the banking firms in Pakistan. All these variables have significant association with the ROE, ROA and NIM as used by the study as the dependent variables in the analysis. The overall results of the test implies that in terms of the earning or performance, the CBs has an edge over the IBs and all the performance measures i.e. ROA and ROE are higher for CBs as compared to IBs. The IBs has performed well in terms of the Profit, Management Quality, Assets Quality and Capital Adequacy as compared to the CBs in the analysis. The CBs however have a higher Liquidity and Earning quality as compared to IBs.

Key Words: Islamic Banking, Conventional Banking, Return on Equity, State Bank of Pakistan

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List of Abbreviations

CBs   Conventional Banking System

EQ   Earning Quality

IBs   Islamic Banking System

LIQD   Liquidity Quality

NIM   Net interest Margin

PLLTL   Provision of Loan Losses Total Loan

ROA   Return on Assets

ROE   Return on Equity

TETA   Total Equity and Total Assets

TLD   Total Loan Total Deposits

Chapter 1

Introduction

1.1 BACKGROUND OF THE STUDY

Country financial institutions are the main instrument of economic progress and development. The banking system plays an important role in channeling saving into productive investments which results in economic growth in a country. Islamic Banking in Pakistan is a relatively new concept as compared to conventional Banking. Therefore, have a lot of challenges and hindrances with new entrants to the existing banks, adherence to Shari'ah Compliance within the existing regulatory regime. Pakistan has a population over 200 million, with the majority of the non-banked and a large number of potential rural customers, which are still not approached, provide a great opportunity by financing SME's, infrastructure and agriculture. This is a win-win situation for the bank and client as well (SBP, 2015).

The economic and financial activities based on interest system increase the gap between poor and rich people, support imbalanced distribution of wealth and develops an economy which are unable to build itself. The Islamic Banking and finance is based on some basic and fundamental principles which guides the transactions and the business relations of the trading parties. The core principals of Islamic banking and finance involve on share profit and loss, charging actual cost with fixed fee or charges for services and no charges or free of cost services

(Bellalah & Ellouz, 2004). The other principles changes in accordance with the business context and industry circumstances.

Islamic Bank corresponds to the banking without the element of interest the guidelines and teaching of Islam. The concept of Islamic banking and Finance prohibits banks transaction which involves interest factor as the main facet of attracting and mobilizing the savers funds. However, as a fact the Muslims society was unable to let alone interest base banking system from their economic structure. Islamic Banking system has been defined by the Organization of Islamic Conference (OIC) as a financial system having its distinct doctrine and procedures which is in line with the Islamic Sharia (Law). Transactions based on interest receipts and payments are outlawed in Islamic Sharia.

In the sixties, the Tabung Haji of Malaysia established the first Islamic Bank in Karachi and a saving investment bank was established in Mit Ghamr Egypt on a profit and loss sharing ratio (Ishak, 2011). Only Tabung Haji bank which was basically initiated to provide the services to the pilgrimage to the holy land survived as it got acceptance in the market, roots in the community, official blessing and mainly because of the narrow focus it had in its business line.

The seventies also brings some new efforts towards the establishment of Islamic banking industry in Pakistan and other Islamic countries like Sudan and Iran. The Malaysian economy also introduced the Islamic Bank system as official patronage and continued the main system along the conventional lines (Archer, Karim, & Al-Deehani, 1998). The IBs has a steady growth in the last two decades (SBP, 2014). However, the industry is still in its formation stage and will reach the masses with the increase in the product base in the industry, broadening, deepening and new investment pools in the industry helping in greater liquidity for the banks. The Bahrian with

the six RGMs (Rapidly Growing Markets) of QISMUT is a key to the future of Islamic Bank industry, and is expected to have a GDP of US$ 4.8trillion with the banking assets of these countries reaching US$ 6trillion. Pakistan is considered as one of the IBs pioneers has recorded considerable growth since 2001 in the industry (SBP, 2014). In the banking sector IBs has shown 30% growth rate per annum in the Islamic finance and banking of Pakistan. The IBs in Pakistan has spread across the 87 different districts in the country with almost 19 different IBs operating with approximately 1500 branches in different cities. The deposits and assets of IBs have almost reached to one trillion in Pakistan at the end of March 2014 and are expected to be double the growth rate to the end of 2020. The growth prospect and the Profit opportunities in the Islamic Bank industry makes the industry highly attractive for the different financial institutions to enter into the markets and explore the tools and the factors which can help the banks achieves a reasonable share of profit from the Industry. The growth prospect of Islamic financial institutions around the world is substantial; at time when the conventional counter part of IBs were busy surviving the financial crunch, IBs record a growth of 29.7% around the world. The core essence or driving force of IBs is the Holly Quran, Hadith as primary backup with Ijma (consensus) and Qiyas (logical Reasoning) as a secondary guide of rule (Muhamat & Jaafar, 2011).

As banks provide major contribution to the economic development of a nation therefore, their financial performance has great influence on the decisions of different stakeholders such as investors, savers and borrowers (Sehrish, Saleem, Yasir, Shehzad, & Ahmed, 2012). According to Siraj and Pillai (2012) used a basic approach to measure the financial performance of CBs to assess its profitability. Factors use for measuring a firm profitability includes on Operating Profit Ratio (OPR), Net Profit Ratio (NPR), Return on Assets (ROA), Return on Equity (ROE) and Return on Share Capital (ROCA). The above mention ratios present the relationship of profit

with total equity, total assets, total income and share capital. The Operating Expenses Ratio indicates the operational efficiency of an organization to manage its operating expenses. Capital adequacy ratio is another important indicator use to measure firm profitability which is enumerated as total assets divide by total equity. A higher Capital Adequacy Ratio indicates higher ownership share in the total assets of the organization and also indicates low financial risk.

The modern IBs often considering as the resurgence of financial system of IBs in the past era which is Riba (usury) free. Primarily there was no specific model for IBs to act upon, except that replacing a thought of interest based banking (CBs) system into profit and loss sharing base banking system (IBs). The primary objective of interest free banking system was to discourage and eliminate interest based transactions.

Sehrish et al. (2012) argued that the basic aim of IBs is to provide an interest (Riba) free business environment for financial activities which in turn will eliminate the interest based financial activities and also the fixed interest rate on capital. Islamic Sharia disallow the risk free and effort less transactions therefore, IBs offer various products and share profit and loss with their clients. IBs provides financial facilities for different risk sharing business and contracts, especially they use leasing as a basic mode of financing. The major concern of IBs is to discourage interest based financing and encourage interest free and risk sharing financial activities for the welfare of economy.

According to Rahman and Zaharuddin (2007) one cannot make a direct comparison amid conventional banking and Islamic Banking as it would be just "Apple to Apple comparison. This is due to the reason that IBs possess distinct features from CBs in many ways. The major distinct

characteristic of Islamic Banking is that it is totally based on Islamic Sharia (law). Thus, all business approach, business transaction, dealing, investment focus product feature and responsibilities are based on Sharia that makes Islamic Bank operation extremely different from the operation conventional banking. The table below presents the unique features of both IBs and CBs:

In Pakistan both Conventional (interest based) and IBs (interest free) operates and provides different services and products. The study concentrated on comparing the financial health of IBs and CBs in Pakistan. The IBs industry is relatively emerging market in the banking industry however as discussed above IBs hold a significant share in the current banking industry in Pakistan. The SBP initiative to promote Islamic Bank has also placed high emphasis on the IBs Industry. The IBs and CBs industry has different asset and liabilities mix and has different performance determinants. This study thus analyzes the factors that determine the performances of IBs and CBs; furthermore, this study analyzes distinctions in the performances measures for IBs and CBs.

1.2   CONVENTIONAL BANKING VERSUS ISLAMIC BANKING

CBs have been considering as a main pillar of the economic sector. These banks are performing well in different ways, such as their growth rate, credit creation and influencing the reserve rates. Commercial banks provide an environment for greater economic activities which allow them to play a pivotal part in the economic growth and development of a country. Their main functions are accepting cash deposits from their customers, to open letters of credit, collection of checks, accepting and discounting bill of exchange, buying and selling of foreign currency and many other services. However, commercial banks face many difficulties and

challenges, and are still in progress to accomplish main part in the overall growth of the local economy.

Khan (2012) stated that the major function of IBs is to participate in partnership businesses and thus, sharing the profit and loss arises from the businesses. Under this arrangement, the participants share their profits and losses based on their share of capital invested and efforts undertaken by each partner. Hence, under the concept of profit and loss distribution system IBs does not assure fixed return rate on assets and therefore, rejecting the concept of conventional banking system.

IBs are specialized financial institutions, where all the financial transactions are take place according to the Islamic Sharia (law). The major financial activities of IBs include savings, making direct or indirect investment in various legal contracts, development and reconstruction, collection of saving, funding individuals, mechanisms of instruments and investment by investment deposits. Moreover, different companies invest their funds in order to become a partner in various manufacturing and trading activities and making profit through Istisna and Murabaha contracts. Based on Sharia all those transactions which involve interest rate (Riba) and speculation (Maisir) are prohibited. Moreover, which are against the Sharia such as trading in tobacco, products contain alcohol and pork are also prohibited (Farooq, 2007).

The functions, operating methods and principals of CBs are totally manmade. Investors borrow money on a particular interest rate and are free to invest these funds in any type of business without any restrictions. CBs does not deal in any Zakat transaction, their fundamental function is to provide money on the basis of compound interest which generates profit for these banks. Additionally, CBs can charge extra money or penalty in case of client default. CBs can

raise their funds through two methods; the first one is internal sources containing owner equity (capital), profits and reserves etc. The second method is to use external sources of fund raising such as deposits, loans and investments. CBs also face different risks; some of them are as follows:

- Credit risk: CBs are more focused on credit creation, which have the highest default rate. This kind of risk is generally attached with profitability and quality of assets of defaults.

- Liquidity risk: one of the core functions of CBs is to borrow money from the savers, and then returning it on the maturity. Therefore, CBs face higher liquidity risk when they are unable to pay their liabilities on maturity.

- Interest risk: it refers to the changes in cash flows of CBs due to change in the interest rates.

- Operation risk: it refers to a risk related to the use of technologies in different activities of the banks. This risk can be reducing by strong control system.

- Other risks include on capital risk, solvency risk and exchange rate risk.

On the other hand, IBs also use two different methods of funds rising; first method is arranging funds through internal resources containing reserves, equity and distributed profit. In the second method they can arrange funds through external resources, such as investment deposits, Islamic bonds (Sukuk), demand deposits and saving deposits. IBs also face different risks; some examples of these risks are as follows

- Liquidity risk, as IBs does not deal in interest based transaction like CBs; it reduces their earning which as a result create liquidity risk.

- Market risk, as IBs mostly deal in different products, securities, services and currencies, therefore price fluctuation in the market and the absence of speculation can create market risk for IBs.

- Consumer deposits risk, when IBs are unable to pay the same rate of return on consumer deposits as compare to other banks (CBs), it can lead to consumer withdrawals from the IBs.

- Credit risk, the financial contracts of IBs is entirely built on profit and loss sharing concept. Therefore, the absence of interest rate earning can create credit risk for the IBs.

- Confidence risk, it occurs because employees working in IBs are generally having poor knowledge about the concept of IBs.

1.3 FINANCIAL PERFORMANCE OF BANKS

Parashar (2010) argued that the concept and fundamentals of IBs differs from conventional banking system. IBs can only perform those actions which are allowed by the Sharia and must not cross the boundaries of Islamic law in all of its actions and deeds. In contrast to Islamic Banking, the CBs deal with the interest based transaction and generate their profit from interest based lending and borrowing.

According to Mohamad, Hassan, and Bader (2008) CBs have more advantages as compared to IBs. For example, CBs are more experienced as it has a long history, enjoy more revenue by using interest which is a main source of revenue for banks, benefits of huge capital, attaining more confidence of customers as CBs do not share their loss with the clients, low risk involve in transaction because of acquiring guaranteed collaterals in most transaction, benefits of

using advanced technologies and also enter to IBs operations (e.g. Deutche Bank, Bank of America, Citibank).

Moin (2008) carried out a comparative study on the financial health of CBs and IBs operating in Pakistan. His study analyzed the financial data of the First Islamic Bank operating in Pakistan by comparing it with 5 convention banks working in Pakistan for the time span of 2003-2007. The findings of the study suggest that IBs in Pakistan experiencing low risk than CBs but also have low profitability ratio and low efficiency level as compared to CBs. The study of Johnes, Izzeldin, and Pappas (2009) found that IBs are more effective in term of profit and revenue but has low cost effectiveness than CBs.

1.3.1 Financial Performance of IBs

Moin (2008) stated that IBs refers to a banking system which concord with Islamic values and ethos and follows the principles of Islamic Sharia (law). IBs also follow tools and techniques use for good governance and risk management by CBs which are not prohibited in Islamic Sharia. Under Islamic Banking system the collection and payment of interest (Islamic Banka or usury) is prohibited. According to Islamic Sharia money should not be used as a commodity to earn profit or more money but should be used to earn profit or more money on services and goods, not on money itself. The features of IBs are derived from the ethical values. Under Islamic Sharia all those economic activities are allowed which safeguard and protect public interest. In Islam doing a business and making profit from it is allowed However, when the nature of business and activities involve in the business runs contrary to Islamic morality, values, Sharia and ethics, it is outlawed. There are certain rules which should be strictly followed by every Islamic Bank. First, IBs must not deal in all those transactions which involves on payment and receipts of interest. The second rule is that IBs can only deal in all those trading and

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consumption activities which are allowed (Halal) in Islam and must not deal in all those consumption and trading activities which are not allowed (Haram) in Islam. Lastly, IBs must not deal in all those transactions which involve speculation (Maisir). Additionally, IBs must comply with accounting and financial standards as given in the Sharia. Ansari and Rehman (2011) stated that in 1940's the practice of Islamic Banking gained momentum and by the end of 1970's these practices was extended across the Islamic word, particularly in the middle east. As the time passes, the practice of Islamic Banking becomes a major tool of economic development for all the Muslim countries. In no time the practice of Islamic Banking spread in North America, Africa, Europe and Asia as well. At the moment there are approximately 300 Islamic financial bodies operating in almost 70 nations with the worth of $500-800 billion capital investment. According to Aggarwal and Yousef (2000) the growth rate of Islamic Banking rise from 2% in the 1970's to 15% in the 1990's. This rapidly increased growth of IBs surprised everyone throughout the world including western financial analysts and experts.

1.3.2 Financial performance of CBs

Parashar (2010) stated that CBs are banks that deals with the interest based transaction. These banks mobilize their funds through interest based lending and borrowing. The interest rate charged by the bank affect the cost of credit and also shows the opportunity cost of capital. Hence, convention bank leads debtor and creditor relationship: on the one side it's create a relationship amid depositor and the bank, and on the other side create a relationship amid the borrower and bank. Siraj and Pillai (2012) argued that CBs generate their profit through keeping different interest rates for borrowers and depositors.

1.4 PROBLEM STATEMENT

The last few decades have observed an unprecedented growth in Islamic Finance and banking system around the world. The IBs have presented new business techniques, product lines, risk mitigation tools and ways of business that are different from Conventional Bank system. There is much debate on the comparative advantages of IBs over the CBs yet to mark a clear line between the two. This raises the need for assessment of the comparative performance analysis of IBs & CBs in Pakistan and to determine the distinct performance measures of banks operating in Pakistan. Specifically, the study focuses of the following Problem.

"The distinct performance measures of IBs & CBs and the comparative examination of the performance of IBs & CBs in Pakistan"

1.5 RESEARCH QUESTIONS

Based on research problem, research questions of the study are as follows:

- What are the major financial performance determinants of IBs and CBs?
- How do the Capital adequacy, management quality, asset quality, liquidity quality and earning quality influence the financial performance of IBs and CBs?
- Is there any contrast between the financial performance measures of CBs and IBs?

1.6 RESEARCH OBJECTIVES

As the study aimed to distinguish between the IBs and CBs in Pakistan the following objectives have been formulated by the study.

- To analyze the factors affecting the financial performance of CBs and IBs.

- To find out role of the management quality, liquidity quality, Capital adequacy, assets quality and earning quality in influencing the financial health of IBs and CBs.

- Comparative analysis of the financial efficiency and performance and the performance determinants of Conventional and IBs.

1.7 SIGNIFICANCE OF THE STUDY

The Sharia base banking has been considered as an attractive substitute to the interest base banking system. The sustainability promised by the IBs and the recent experience of the economies with the Conventional Bank system has placed the Islamic Bank industry in the spot light. The need however exists to assess the IBs by comparing it with the CBs to determine the performance dissimilarities and the factors that play a pivotal part in determining the performance of Conventional and IBs. In Pakistani banking the IBs has gained significant market share in the last few decades and is gaining overwhelming acceptance from the customers. This study thus analyzes the factors that are essential in performance determination of the IBs comparatively to the Conventional banking industry. The study thus provides significant insights into the important factors that are responsible in determining the financial performance of IBs and CBs. The study results will provide important understandings and facts from the banking industry both for the conventional and Islamic Bank industry and will add further to the existing work in the area.

1.8 STRUCTURE OF THE STUDY

First chapter of the study presents an overview of the IBs and CBs and Pakistani banking industry. The second chapter presents a detailed literature review existed on the same issue. The Third chapter presents the theoretical framework and the mix of tools and techniques used for the

analysis. The fourth chapter presents the results and the last chapter concludes the study along with some recommendations.

Chapter 2

Literature review

2.1   INTRODUCTION

In the last few decades of banking industry and financial markets significant directional and strategic changes have been observed in the financial market and banking sector of the world, the existing procedures and structure of Conventional Bank has been replaced by innovative and new banking procedures, products and modes of financing (Ahmed, 2009). One of the most promising trends for the last two decades is the rapid growth rate and the expansion of the IBs industry and Finance Institutions which is setting the tone for the banking industry in most of the Gulf, Middle East and the south Asian countries with support from Africans Muslim Countries. According to Wilson (1995) the IBs has developed as a niche and demand driven banking industry as a choice or an alternative for the customers alongside the Conventional Bank system. Dusuki and Abdullah (2007) described the IBs as not only the Religious need of the Muslims, but it also provides product and services to the non-Muslim societies and new customers as well and the IBs operates almost in 75 different destinations around the world.

Pollard and Samers (2007) commented that the IBs continues to draw the attention of the Global markets and most of the commercial institution around the world has taken their position to capitalize upon opportunities in the Islamic Bank industry, there are almost 25 different Non-

Muslim countries where the IBs operates also the CBs in most countries of the world have their Islamic Bank windows which offer Sharia Compliant Products and Services. Hassan (1999) stated that Islamic Bank is a banking structure which is govern under the laws and principles of Sharia and he also suggest that Laws and principles of Sharia are based on four major pillars of Islam, naming Quran, Sunnat, Ijma and Qiyas. Wahyuni (2012) argued that Islamic Bank refers to a market structure and business where business function, transaction, services and products according to the principles and guidance of Sharia. Iqbal (2001) suggested that Islamic Bank industry refers to a Rislamic Banka Free banking system which prohibit and discourages the three major components of Business transaction and financial markets which are uncertainty, Interest and Gambling. The factors which are prohibited by the Islamic Sharia have hazardous effects on the society and for the reason of the overall benefit of the society and for the Mutual success of the residents of the economy Islam avoids certain elements of the Financial transaction which are deemed to be Haram by Islamic Sharia. Uusmani and Taqī 'Usmānī (2002) argues that the interest has been prohibited in Islamic Bank and financial markets as it give rise to different bad consequences in the society for different stakeholders. The economic and financial activities based on interest system increase the gap between poor and rich people, support imbalanced distribution of wealth and develops an economy which are unable to build itself.

The Islamic Banking and finance is based on some basic and fundamental principles which guides the transactions and the business relations of the trading parties. The core principals of Islamic banking and finance involve on share profit and loss, charging actual cost with fixed fee or charges for services and no charges or free of cost services (Bellalah & Ellouz,

2004). The other principles changes in accordance with the business context and industry circumstances.

Islamic Bank corresponds to the banking without the element of interest the guidelines and teaching of Islam. The concept of Islamic banking and Finance prohibits banks transaction which involves interest factor as the main facet of attracting and mobilizing the savers funds. However, as a fact the Muslims society was unable to let alone interest base banking system from their economic structure. Islamic Banking system has been defined by the Organization of Islamic Conference (OIC) as a financial system having its distinct doctrine and procedures which is in line with the Islamic Sharia (Law). Transactions based on interest receipts and payments are outlawed in Islamic Sharia (Hassan, 1999). The Banking and economic system under Sharia Law present some limitation over the transactions and prohibits dealings in the economy that could upshot in the flaws of the self-profit boosting approach in the economy. The Sharia based financial and banking system provides socio economic expansion facets of the economic efforts and the financial affairs in the economy (Matthews & Tlemsani, 2010). The basis of the Islamic Bank system emphasizes on the wellbeing of all the individuals in the society taking into consideration all the stakeholders in the society relatively to the Conventional Bank system, which have their focus on the utility of the individuals in the society (al-Qaradhawi, 2009). Matthews and Tlemsani (2010) comments the Conventional Bank system works for the improvement of welfare, satisfaction and the choice of the individuals in the society, Islam has a different perspective and believes in the maximization of the welfare, wealth and the choices of the aggregate society instead of harming the social norms for the individual's stakes in the society.

The earlier theory in the field of the IBs was largely a plea in order to legally convert the traditional banking system to a banking system centered on profit and loss distribution concept instead of giving the lenders a fixed amount of interest to the lenders. The aim was to involve the lenders and the financial intermediaries in the profit and loss distribution agreement and to make the bank and the fund user's response IBs for the risk of the business. The aim was fairness in the financial transactions as it was considered unjust to guarantee fixed payment to the lenders in an environment which could not guarantee the profits of the fund users (Ghanameh, 1973). The theory also highlighted the point that the main problems in a capitalist economic system specially the inflation, poverty, unemployment and economic cycles are rooted in the interest based lending (Uzair, 1978). According to Hameedullah (1936) the problems faced by the capitalist economic system because of the interest based transaction by the banking system could be replaced by the IBs which was supposed to provide a non interest based solution to these problems and providing the profit and loss distribution methods to the fund owner. Therefore, Riba prohibition (interest), and profit & loss distribution methods are the key factors differentiating IBs.

The IBs and finance industry is based on principals developed in the first century of Islam and which are further elaborated and purified by the Islamic social and economic cultures and intellect (Van Schaik, 2001). The IBs is a mode of banking transaction which has its pillars derived from the Sharia the sources of which are Quran, Hidath, Sunna, Ijma and Qiyas (Gait & Worthington, 2008). The Islamic Finance and banking principles provides fair and equitable modes of wealth distribution in the society with the greater welfare of the society relatively to the CBs system which has its foundations based on the Capitalist economic setup.

2.2 THEORETICAL REVIEW

Conventional banking and Islamic Banking are two different concepts; approach different business and each of both have its own origin linked to a specific group. Beck et al. (2010) stated that the origin of IBs rooted to Middle East and on the other hand, the history of crises often traced back to 'Western Banking' (Wilson, 2009).

Ansari and Rehman (2011) argued that the operation of IBs differs from CBs and were accelerated in 1970's to encourage Riba Banka free banking system. The resourceful and committed individuals, Islamic economists, religious scholars and professional bankers have put all of their efforts to make it successful and therefore, recognized as the pioneers of Islamic Banking. The Islamic Sharia (law) which provides a base for Islamic Banking is not a new phenomenon as the principles and philosophies are given in the Holy Qur'an and are accordance to the Sunnah of Prophet Muhammad (P.B.U.H) which is traced to 1,400 years ago. The modern IBs often considering as the resurgence of financial system of IBs in the past era which is Riba (usury) free. Primarily there was no specific model for IBs to act upon, except that replacing a thought of interest based banking (CBs) system into profit and loss sharing base banking system (IBs). The primary objective of interest free banking system was to discourage and eliminate interest based transactions.

Sehrish et al. (2012) argued that the basic aim of IBs is to provide an interest (Riba) free business environment for financial activities which in turn will eliminate the interest based financial activities and also the fixed interest rate on capital. Islamic Sharia disallow the risk free and effort less transactions therefore, IBs offer various products and share profit and loss with their clients. IBs provides financial facilities for different risk sharing business and contracts, especially they use leasing as a basic mode of financing. The major concern of IBs is to

discourage interest based financing and encourage interest free and risk sharing financial activities for the welfare of economy.

According to Rahman and Zaharuddin (2007) one cannot make a direct comparison amid conventional banking and Islamic Banking as it would be just "Apple to Apple comparison. This is due to the reason that IBs possess distinct features from CBs in many ways. The major distinct characteristic of Islamic Banking is that it is totally based on Islamic Sharia (law). Thus, all business approach, business transaction, dealing, investment focus product feature and responsibilities are based on Sharia that makes Islamic Bank operation extremely different from the operation conventional banking. The table below presents the unique features of both IBs and CBs:

Table 2. 1 **Differences amid Conventional and Islamic Banking**

S. No	Conventional Banks	Islamic Banks
1.	The operation and financing modes of conventional banking is fully built on manmade guidance and principles.	The operation and financing modes of conventional banking is fully based on the Sharia guidance and principles.
2.	Clients are assured of risk free investments, thus CBs provide fixed interest rates.	In contrast, IBs make their investments based on profit and loss distribution principle of Sharia and there is no fixed rate of interest.
3.	There are no restrictions for CBs when maximizing their profitability.	In contrast, IBs are bound of Sharia restrictions when maximizing their profitability.

4.	In conventional banking the concept of "Zakat" does not exist, thus these banks do not deal in any "Zakat" transitions.	In Islamic Banking, dealing in "Zakat" is major part of their operation and thus, performing the function of receiving "Zakat" and then paying it out to needed people.
5.	The main source of revenue for convention banking is lending money to the needed people and then receiving it with the compound interest.	On the other side, the major source of revenue for IBs is investing their funds in partnership businesses and therefore, the need to understand the clients businesses.
6.	In a situation where default in on customer part, CBs impose penalties and may also increase their compound interest.	In contrast, In the case of customer's default IBs do not impose any penalties or receive any extra money instead, IBs receive a small amount of compensation. The money received from these compensating is then given to charity fund. Additionally, IBs offering rebates for the early settlements of dues.
7.	CBs give priority to their interest and not to the best interest of customer such equity growth.	In contrast, the major priority of IBs is the public interest and gives more importance to the growth of equity.
8.	It is much easier for interest based or CBs to get funds or loans from the money market as compare to IBs.	It is difficult for IBs to get funds or loans from the money market as they are bound to deal in transactions which are approved by Islamic Sharia.

9.	As a conventional bank receives a fixed amount of interest on their advances therefore, little importance is given to profit appraisal, development and evaluations.	In contrast, IBs participating in different partnership businesses and sharing their profit and loss therefore, gives more importance is given to profit appraisal, development and evaluations.
10.	As CBs gives advances to the public therefore, give greater importance to the credit worthiness of their customers.	IBs give greater attention to the capability and feasibility of the projects.
11.	The relational status of CBs with their customers is that of debtors and creditors.	The relational status of IBs with their customers is that of investors, traders and partners, sellers and buyers.

Mohamad et al. (2008) argued that CBs generate their revenue from the difference between the rate of interest received from the debtors on advances and the rate of interest which would be paid to the creditors (depositors). There are also other set of financial institutions using the traditional approaches of conventional banking in the form of lending and deposit principal. Examples of this kind of financial institutions which are performing the lending and deposit activities are credit card institutions, mortgages dealing institutions etc. These institutions generate their earning through selling loans to debtors and charging fees on these loans. In contrast, the ideologies of Islamic Banking are strongly attached with the Holy Quran and with the Prophet Muhammad (PBUHP) Sunnah and are also derives from different "Fiqha". The word

"Fiqha" has been defines as different schools of thoughts such as Maliki, Shafi, Hanafi, Ja'afarya and Hanabali. The concept of Islamic Banking phenomena is a distinct and dynamic implementation of the Islamic Sharia or legal code. Repeatedly defines as that IBs forbids interest both on advances and deposits although, it is not the only difference, there are such other dissimilarities between these two types of banking system as mentioned in the above table.

Though IBs disallows and rejects the concept of interest on transaction but time value related to money is still possess great importance for IBs as it provides a suitable income on money to the financier. This idea is explained as follows: Firstly, the rate of profit to be received on funds lending to the borrowers for a particular time period is not preset, this indicates that the lender will get a share of profit earned by the borrower through any undertaking carried out. Secondly, in the case of financing where investors acquire tangible goods through lease or sale, the investors might get compensation due to the fact that they sacrificed the opportunity. Hence, the profit received from the lease or sale of tangible assets reflect the time value. The core notion of IBs is that clients are not considers as creditors, instead they are considering as partners in any undertakings. Based on Islamic law peoples are restricted to deal in any transaction which includes Riba (interest).

Khan (2012) stated that the major function of IBs is to participate in partnership businesses and thus, sharing the profit and loss arises from the businesses. Under this arrangement, the participants share their profits and losses based on their share of capital invested and efforts undertaken by each partner. Hence, under the concept of profit and loss distribution system IBs does not assure fixed return rate on assets and therefore, rejecting the concept of conventional banking system.

2.3 DETERMINANTS OF BANK PERFORMANCE

Banks profitability performance has been remains a major area and popular topic for the research for researchers for many decades as banks are consider an important pillar of economic development. The performance measurement of banks involves on determining and assessing the relationship amid internal economic environment of banks and external events. Profitability of banks is the essential element to determine the persistence of banks as well as to find out that how a particular bank has performed. Profitability does not only affect bank the performance but also helps the bank to plane effectively in order to persist and compete in today's increasing competitive market, thus profitability measures defines the degree that how well a bank has performed. In past the researcher used ROE, ROA, Net Interest Margin (NIM) and profit margin ratios to evaluate the profitability of banks, although theoretically it has been noticed that ROE and ROA are the two major ratios normally used to enumerate banks profitability. ROE is used to determine the ratio of profit to equity while ROA is used to figure out the ratio of profit to assets. In other words, ROE ratio presents the profit earned by banks using the equity capital, thus showing the management ability of using shareholder funds to generate profits. Therefore, higher ROE ratio shows that bank management have the ability of effectively using the shareholder funds to generate profit for the banks, thus showing better managerial performance. However, ROA is used to enumerate the profit earned by banks using the assets and reflects that management ability of using the bank assets to earn profit. Higher ROA ratio shows that bank management is effectively using the assets to earn profit or effectively converting its assets into profit thus signify better managerial performance. It is noted from the above discussion that both ROE and ROA ratios are acceptable to measure the banks performance in term of profitability of both CBs and IBs systems. There are number of researchers who used ROE and ROA as a

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profitability measurement ration in their studies for both CBs and IBs. These studies include Ali, Akhtar, and Ahmed (2011); Ameur and Mhiri (2013); Anbar and Alper (2011); Athanasoglou, Delis, and Staikouras (2006); Bashir (2003); Dietrich and Wanzenried (2014); Ramadan, Kilani, and Kaddumi (2011); Sufian (2011) and Sekhon et al. (2010). Although ROA has been consider a better tool to measure banks profitability as compare to ROE. After utilizing a sample of 218 CBs Rivard and Thomas (1997) stated that ROA is the most suitable proxy to evaluate the profitability performance of both type of banking systems because it does not only give a better view of banks profitability and its management ability but also not manipulated by high equity multipliers. Another study carried out by Hasan and Dridi (2011) where he used a sample of 15 IBs suggested that ROA ratio is better than ROE when measuring banks profitability because ROE is normally influenced by ROA and also by the level of financial leverage. He further added that most banks are using high financial leverage to achieve the competitive level of capital funds which as a result leads to misleading ROE ratio. Other researchers such as Al-Khasawneh, Bassedat, Aktan, and Thapa (2012); Curak, Poposki, and Pepur (2012); Dawood (2014); Rao and Lakew (2012); Sufian and Habibullah (2009); Syafri (2012); Talib, Rahman, and Qureshi (2012); Vejzagic and Zarafat (2014); Wasiuzzaman and Tarmizi (2010) and Muda et al. (2013) also used ROA ratio to find out the bank's profitability performance and have found that ROE is influenced by financial leverage. However, in the past both ROE and ROE ratios had widely used in different studies as compared to NIM which had used in few studies. NIM ratio measures interest spread amid the interest received on advances by the banks and the interest paid as an expense on deposits of lenders. According to Ongore and Kusa (2013) NIM is an important measure of profitability and higher NIM ratio indicates signifies profitability and better stability of banks. Hence, this ratio is only limited to studies which is based on CBs.

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Ongore and Kusa (2013); Dietrich and Wanzenried (2014); Sufian (2011); Tafri, Hamid, Meera, and Omar (2009) stated that the concept of interest is prohibited in IBs as it's usually considers as the cost of loans and the money opportunity cost. According to Lodhi (2014) that the functions of IBs are entirely based on Islamic sharia (law) which defines interest as a unlawful or unjustified gain. According to Bashir (2003) the use of NIM ratio is not suitable in IBs and have a conflict with Islamic sharia as these banks are supposed to be interest free in all type of transactions. Based on the studies conducted by the researchers such as Dawood (2014);Al-Khasawneh et al. (2012); Bashir (2003); Curak et al. (2012); Rivard and Thomas (1997); Sufian and Habibullah (2009); Syafri (2012); Tafri et al. (2009); Wasiuzzaman and Tarmizi (2010) and Vejzagic and Zarafat (2014) it is concluded that ROE, ROA and NIM ratio are to be used as bank profitability indicators in this study as ROA ratio is considers as the best tool to evaluate the banks financial performance, additional ROE and ROA ratios are acceptable in both type of banking systems while NIM ratio is more suitable for CBs.

Capital has been defined as the available funds to banks to finance its daily operational activities as well to maintain reserve for unpredicted losses in case of unfavorable situations (Ongore & Kusa, 2013). Capital funds provide liquidity to banks in order to payback their customer's deposits on demand and to reduce insolvency risk. According to Sekhon et al. (2010) ROE ratio does not only determine capital adequacy but also helps the management to estimate the risk level and regulatory cost. Based on the conventional risk return hypothesis, Wasiuzzaman and Tarmizi (2010) asserts that there is an indirect association amid profitability and capital. According to Curak et al. (2012) banks with low capital are expected to earn high profits than highly capitalized banks. Dietrich and Wanzenried (2011) state that highly capitalize banks are less risky and more safer but would be less profitable than; lower capitalized banks

because risk-return theory suggests that taking low risk leads to low return and high risk leads to high return. An empirical studies conducted by Curak et al. (2012); Wasiuzzaman and Tarmizi (2010) and Dietrich and Wanzenried (2014) found that there exists inverse relationship amid profitability and capitalization. Curak et al. (2012) investigated the relationship amid capital and profitability in Macedonian banking industry over the period of 2005 to 2010. The results of the study revealed that capital strength has negative influence on profitability. Although, greater capitalization reduces solvency risks and provide more liquidity but in banking business excessive caution also leads to lower profitability. The level of capital funds should be compare to level of risks of banks. Dietrich and Wanzenried (2011) found a negative and indirect association with banks profitability during the financial crises of 2007 to 2009. This is due to fact that banks in Switzerland had encouraged more saving deposits in the period of crises but these banks was unable to convert greater amount of saving deposits into higher return because the demand for loans from banks had significantly decreased during the crises. It signifies that IBs with low capital leads to lower agency cost which as a result enhanced bank performances. Koehn and Santomero (1980) stated that the level of capital may be raises due to complying with regulations. Therefore, banks need to avail investment opportunities which involves higher risk as well as higher return in order to make effective use of their capital funds. Guru, Staunton, and Balashanmugam (2002) asserts that banks having high capital ratio are more secure and have less risk which improve creditworthiness, appreciates lower interest and enhance saver confidence as well as increases the need for external funding which as a result improve banks profitability. Hence, capital adequacy ratio is directly linked with banks profitability. Other researcher accepting a direct relationship amid capital adequacy ratio and banks profitability includes Ameur and Mhiri (2013); Naceur (2003); Ongore and Kusa (2013); Ramadan et al. (2011);

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Sufian (2011); Sufian and Habibullah (2009); Talib et al. (2012). This study is conducted to examine the micro-economic and macro-economic factors which influences banks financial performance in Kenya. The study unveiled that capital adequacy has significantly positive association with banks profitability in Kenya. Ameur and Mhiri (2013) used average return on equity and NIM as a proxy to evaluate the profitability of Tunisian's commercial bank. The study found a positive relation amid the capital adequacy and profitability ratios of Tunisian's commercial bank. Furthermore, Naceur (2003) suggested that banks profitability and capitalization have a positive relationship and highly capitalized banks leads to lower bankruptcy costs which in turn reduces their capital costs. On the other hand, Al-Qudah and Jaradat (2013) conducted a study to understand the financial health of IBs and the result pointed out that capital adequacy ratio is directly linked with ROA and ROE IBs. Therefore, highly capitalized IBs have the advantage of cheaper funds which as a result enhance banks profitability. Moreover, Yap et al. (2012) pointed out a positive linkage amid the capital adequacy and profitability in Malaysia. However, from the above discussion it can be noted that there are both positive and inverse association of capital towards the profitability for both baking systems.

Researchers in past have mostly used bank size as a major factor to ascertain the bank's profitability and to determine the impact of economies of scale in banks. The size of banks is often determined by (Ameur & Mhiri, 2013) the value of total assets in banks. However, it is better to take the natural logarithm of the assets value to uniform it with the values of other ratios as the value of total assets emptied the dependent variable (profitability) in the model. A study of Javaid, Anwar, Zaman, and Ghafoor (2011) revealed that larger banks have the advantage of higher economies of scale as compare to small banks which reduces their search cost and thus increasing the profitability of banks. According to them bank size is positively associated with

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the profitability ratio of banks because larger banks are generally more diversified in term of products and modes of loans and thereby, larger banks achieving the benefits of economies of scale. There are few researchers who supported a positive linkage amid bank size and profitability namely: (Al-Qudah & Jaradat, 2013; Ali et al., 2011; Gul, Irshad, & Zaman, 2011; Iqbal, Aḥmad, & Khan, 1998; Rao & Lakew, 2012) carried out a study to examine the association amid bank size and profitability in Africa for the time span of 1999 to 2009. The result of the study pointed out that banks profitability is positively attached with the bank size due to economies of scale. Gul et al. (2011) carried out a study in order to understand the effect of internal bank factors or bank specific factors and external factors or market specific factors on the banks performance. The study used the sample of fifteen CBs operated in Pakistan for the time span of 2005 to 2009. He suggested that the profitability of banks is positively related with the bank size. A similar study of Ali et al. (2011) for the period of 2006 to 2009 in Pakistan revealed a positive linkage amid bank size and profitability. Moreover, the study also suggested a positive influenced of bank size on the banks profitability in Pakistan. Syafri (2012) suggested a negative association amid extremely larger banks and profitability because he stated that diseconomies of scale also happens due to larger monitoring costs (overhead of bureaucratic process, agency cost etc.) and inefficiency of utilizing the bank's assets to generate suitable returns. Other studies supporting the negative impact of bank size on profitability are (Ameur & Mhiri, 2013; Naceur & Goaied, 2001; Ramadan et al., 2011). In fact, the marginal return of larger banks may decline and thus facing an inverse relationship amid average returns and bank size. In contrast smaller banks are more expected to increase their average returns when enhancing their bank size due to more empowerment power and information benefits gain from the size.

2.4   COMPARATIVE PERFORMANCE ANALYSIS OF IBS AND CBS

Banks perform significant role in facilitating different financial transaction across the world to enhance and stimulate the growth of an economy. The comparison of conventional and IBs relies on CAMEL framework. In past, various comparative studies were directed to determine the factors influencing transaction, profitability and operations performance of CBs and IBs. Banking sector make major contribution to the persistency of global economy due its primary function of financial intermediates between the nations. The primary function of banking industry is to mobilize the surplus funds of depositors by advancing it to the borrowers and offering different services and products to fulfill the economic demand of a nation (Anbar & Alper, 2011). The subject related to the bank's profitability is of great importance as it maintains robustness and safety of banks itself as well as the economic development and stability of a country. Therefore, determining the factors effecting banks profitability is a serious concern for economic analysts and experts across the world in order to improve the country economic stability and to protect the interest of banks stakeholders, government and other policy makers (Hamidi, Abd Aziz, & Mat Sin, 2012). Many earlier and recent studies have been carried out to determine and understand the factors effecting banks performance such as (Guru et al., 2002; Koehn & Santomero, 1980; Rivard & Thomas, 1997). In many existing studies banks profitability has been measured through micro-economic or bank specific determinants of profitability and macro-economic (industry specific) determinants of banks profitability. Accordingly ROE and ROA are the two mostly used ratios by researchers to quantify the profitability but only few researchers have used NIM to evaluate banks profitability. ROA ratio has been considers as a best indicator attached with the banks financial health as it shows the extent to which the banks have efficiently utilized their existing assets to generate profits.

Therefore, ROA is used by many researchers around the world such as (Bashir, 2003 ; Rao & Lakew, 2012; Rivard & Thomas, 1997; Syafri, 2012; Tafri et al., 2009; Wasiuzzaman & Tarmizi, 2010).

On the other hand ROE determines the degree of efficiency to which the banks using their capital funds to generate profits. Various researchers have used both ROE and ROA to enumerate profitability of banks such as Ali et al. (2011); Anbar and Alper (2011); Athanasoglou et al. (2006); Bashir (2003); Guru et al. (2002); Ramadan et al. (2011); Sufian (2011) and Kyzy et al. (2012). However, NIM ratio has been used in few studies as it is not a best measure of banks performance as compare to ROE and ROA. Based on micro-economic or bank specific factors profitability is of great importance due to its impact on liquidity, enhancing bank expansion, improving stakeholder confidence on banks and for the brighter prospect Al-Khasawneh et al. (2012). According to Ameur and Mhiri (2013) the primary microeconomic factors used in the previous studies are bank size, operational efficiency and capital adequacy ratio. He also suggested that capital adequacy ratio is a primary internal factor of banks profitability as it allows the banks to persist their banking business and helps the banks in unfavorable events where the banks may suffer from losses. Other researchers who used this performance indicator to measure the capital strength of banks are Bashir (2003);Curak et al. (2012); Wasiuzzaman and Tarmizi (2010) and Zeitun (2012). Bank size is another essential indicator of banks performance which determines the effect of economies of scale on banks profitability. Ameur and Mhiri (2013) stated that larger banks can benefits from economies of scale as it results in low cost which in turn improve banks profitability. Operational efficiency is another important indicator of profitability and is widely adopted by various researches such as Bashir (2003); Erina and Lace (2013); Naceur (2003) and Wasiuzzaman and Tarmizi (2010). On

the other hand, macro-economic determinants such as inflation and GDP growth which cannot be control by the bank management. From the perspective of macroeconomic determinants GDP growth is widely used by various researchers such as Almazari (2014); Almumani (2013) and Dawood (2014) to examine the effect of economic development on banks performance. These authors concluded that banks performance is correlated positively with economic development of a country.

Al-Khasawneh et al. (2012) suggested that constant and profit-generating banks are constrained in facing any unexpected shock arises in bank. GDP growth rate is broadly used by previous studies such as Almazari (2014); Almumani (2013) and Dawood (2014). These studies suggest that banks performance is expected to be improving during the economic prosperity because the demand for banking products and services will also increases.

Algaoud and Lewis (2007) used an experimental analysis to assess the performance of IBs where they had used a sample of fourteen IBs in eight countries. The study used regression analysis with the following variables; Average ROE, average ROA and Pretax profit to Total Assets. The results of the study found that higher Loan to Assets Ratio and equity to assets ratio are the result of higher GDP of a country which increases profit margin to organization or banks. Their study suggested that greater Capital to Assets Ratio results in higher profit.

Another study conducted by Chukwuogor-Ndu and Wetmore (2006) to analyze the performance of CBs operated in the United States (US) over the time span of 1997 to 2002. He categorized all the CBs into three: large, medium and small relying on the assets size. The study used interest income, NII, ROA ratio and provision of loan losses to evaluate profitability and also investigated that which group of conventional is more profitable. The study found that small banks have low profit and medium banks have higher profit during the sample time span. In the

first interval of the study (1997-2000) the ROA was found same for all the three groups and small banks had shown relatively greater interest margin as compared to other two groups. In the second interval of the study duration (2000-2002) the margin interest was recorded low in small size banks and high in large size banks. Additionally, the study found that larger banks had the highest loan loss as compared to other two groups.

Yudistira (2003) investigated the efficiency level of eighteen IBs for the time span of 1997-2000. The study used Data envelopment analysis (DEA) and non-parametric tool to assess the efficiency of IBs. The results indicated that IBs had shown considerable efficiency for the sample period. The result found that IBs were more efficient in the year 2000 by achieving the efficiency rate 0.909 as compared to values 0.901, 0.871 and 0.898 for the period of 1997, 1998 and 1999 respectively. However, the overall efficiency of 18 IBs was recorded low than the efficiency of CBs operated in various countries for the sample period. Moreover, the study found that banks IBs operating in Middle East are comparatively less efficient than other regions of the globe. The author provided the reason that IBs operating outside the Middle East have good governance practices and are relatively new as compared to IBs functioning in Middle East.

Mokhtar, Abdullah, and Al-Habshi (2006) examined the technical and cost efficiency of IBs and CBs in Malaysia. To analyze the degree of efficiency the study used annual reports of 22 IBs and 20 CBs to accumulate data for the time span of 1997 to 2003. By applying the Stochastic Frontier Approach, the study found that IBs in Malaysia were grown very rapidly in term of deposits, financial and assets base for the sample period as compared to CBs. Cost and technical efficiency are providing useful insights to policy makers of IBs to efficiently utilize scarce resources in banks. Qayyum (2007) carried out a study to measure the efficiency of 20 banks operating in various countries for the time span of 1991 to 2005. The study adopted Data

Envelopment evaluation technique and Nonparametric programming technique to examine the efficiency level. The study found that banks are more efficient in the year 2005 by reaching the score of 87% as compared to 65% efficiency score in the year 1991. This efficiency growth allows the banks to expand their operations, enhance their capital, and improve their assets quality and profits. Furthermore, the author pointed out that this increasing development also happens due to increasing competition among banks.

Čihák and Hesse (2010) carried out a study to empirically examine the financial strength of CBs and IBs. The study sample was comprised of banks from 20 countries relying on the Banks cope that contained both CBs and IBs. Their study categorized the selected banks in small and larger banks according to the assets size. The study used standard of stability "Z-score" to evaluate the financial health and stability of banks. They pointed out that small IBs was more stable than small and large CBs, although larger CBs was found more persistent as compared to large IBs.

Hasan (2004) examined the performances of IBs in term of goal achieved through different models. These models contain different standards set and measurement tools which may be used to compare the actual performance or output with the standards. The study applied these standards by comparing it with the actual performance of IBs in order to determine the degree to which the selected sample of IBs accomplished their goals. The result of this study was interesting when the study found that there are no auditing and accounting standards which are to be used for the examination of IBs performances. Therefore, Islamic Development Bank is striving for the formation and designing of Auditing and Accounting organization to build their own private standards for Islamic financial institution (IBs).

Javed, Ullah, and Malik (2015) carried out a study for the purpose to scrutinize the financial health of IBs in Pakistan for the time span of 2008-2012.Where the required data for

the analysis was composed from the financial reports of IBs. The study used inductive approach and other indicators in order to examine the assets efficiency. The study concluded that the Return on Equity ratio was continuously increasing which indicates that IBs are more focused on maximizing their equity. The study also pointed out that solvency ratio for deposits and assets did not accomplished high rates. Akhtar, Ali, and Sadaqat (2011) carried out a study in order to measure assets efficiency and liabilities management in commercial and IBs by evaluating the profitability and liquidity determinants. The study used the sample of 5 CBs and of 5 IBs in Jordan. Data for the analysis was compiled from the secondary source and from the analysis of financial statement of both types of banks. Descriptive analysis method was used along with regression and correlation of coefficients in order to assess the performance. The study found a strong relation amid liabilities and assets of IBs and CBs. Return on average equity ratio was pointed out close in both CBs and IBs; however, the study also concluded that IBs are less risky than CBs.

Godlewski, Turk-Ariss, and Weill (2010) investigated the competition conditions between conventional and IBs. The research used different traditional indicators (i.e. competition in the index of market power or Lerner index and in the market index). The study performed over the period of 2000 to 2006. The study found that competition was weak between IBs but is more effective and has a positive influence on the financial health of IBs when correlated with higher level of profitability. However, competitions have greater significance for CBs. Siddique and Rahim (2013) assessed the productive efficiency of full fledge IBs and of Islamic branches of different CBs. The study concluded that IBs have greater efficiency in controlling cost but are less efficient to generate profits.

Kosmidou, Tanna, and Pasiouras (2005) investigated the financial efficiency of IBs and CBs. The study used a sample of thirty banks which was comprised of sixteen IBs and fourteen CBs. He had categorized the sample into two groups: large and small banks depending on the assets size of banks. To evaluate the performance CAMEL approach was used which was based on earnings before tax to Total Assets ratio, Equity to Assets, pretax earnings to equity and loans to assets. The results of the study concluded that the market share of CBs is increasing at a greater pace than IBs.

Olson and Zoubi (2008) carried out a study in order to explain the problems IBs face in their finance related transaction and also recommended solutions to those problem found in his study. His study was also investigated the challenges IBs face in their capital determinants and the determinants of interest which is prohibited in IBs. Finally, the study concluded that profit and loss distribution concept of IBs is a substitute solution to the traditional interest base banks (CBs). moreover, he suggested that to minimize the risk IBs must include a third party in the transaction as insurance and should hedge their investment in order to reduce the effect of potential loss due to change in currency exchange rates.

Yudistira (2003) examined the efficiency of IBs by conducting an empirical study of eighteen IBs. He estimated the efficiency of different IBs by determining and using the proposed criteria. The study aimed to discuss different challenges face by IBs, to understand that how IBs had reacted to globalization and analyzing the developments of IBs. His study unveiled that many CBs are shifted to full fledge IBs or opened their Islamic branches across the world.

The study of Iqbal et al. (1998) reviewed the practices of IBs and CBs for the period of 1994 to 1996 in order to identify their operation and to point out the challenges faced by both types of banks. The study found that there are various important factors causing CBs to move into full

fledge IBs or to open Islamic branches. The study found that IBs face several fundamental challenges such as lack of appropriate institutional model to adjust their operation with globalization and issues related legitimacy.

The study of Berger, Herring, and Szegö (1995) analyzed the factors effecting profitability of CBs in US for the time span of 1983 to 1989. In his study, he found that bank capitalization is strongly related to the earning of CBs. The study used regression analysis in order to correlate return on Equity and capital and concluded that capitalization is positively associated to the profitability of CBs. The same study was reorganized for the period of 1990-1992 due to some changes in laws of CBs. His studies found several findings; some of them are as follows:

- The study revealed that profitability and capital have strong positive relation of CBs operated in US for the time span of 1983 to 1989.
- The study showed a negative association amid capital adequacy ratio and profitability ratio for CBs in US during the period of 1990-1992.

Explaining the above results, he state that when the capital is below the optimal level it results in positive linkage amid profitability and capital and when the capital is higher than the optimal level it results in positive relation amid profitability and capital. Imam and Kpodar (2013) examined the factors affecting the extension of IBs across the globe. The study examined a model which included on the main factors influencing the level of expansion of IBs. Some of the important factors are average income per person, Muslim population, oil prices and development of the local financial system. They concluded that average profit per person have a significant impact on the expansion of IBs. Moreover, the study suggested that competition amid banks have positive effects on the expansion of IBs across the world. Almanaseer and AlSlehat (2016) analyzed the liquidity level of IBs in Jordan for the time span of 2004 to 2008. The study

pointed out that IBs have liquidity surplus. Erol and El-Bdour (1989) empirically analyzed the behavior of customer by using the data of IBs. A questionnaire which was distributed to 434 individuals working at IBs used as a source to collect data for the analysis. His study found that there is a significant association amid selection of personnel, religion motives and the economic activities of banks. His study also found that the spread of IBs had a weak effect on the use of services offered by the IBs.

Mohamad et al. (2008) carried out a comparative study to examine the efficiency of IBs and CBs. The study took the sample of 40 banks form the Organization of Islamic Cooperation (OIC) nations over the period of 1990-2005. To study examined the cost efficiency, profit over revenue efficiency and the impact of bank age and size on its efficiency level. The required data was collected from the financial statement of banks. The study concluded that the degree of efficiency was mostly similar in conventional and IBs. However, IBs have greater efficiency in using their resources to generate revenue. Additionally, the study suggested that age and size of banks have no significant effects on the respective banks efficiency and effectiveness of both IBs and CBs.

A comparative study of Saeed, Ali, and Baber Adeeb (2013) evaluated the performance of IBs and CBs in Pakistan for the period of 2007 to 2011. The study used a sample of 19 banks and applied ratio analysis in order to measure the efficiency of both banking systems. The study revealed that CBs have better performance as compared to IBs. The study used Data Envelopment Analysis technique and non-parametric tool to evaluate the efficiency of IBs. The results indicated that IBs had shown considerable efficiency for the sample period. Another study conducted by Wu, Lin, Lin, and Lai (2009) reviewed the effect of governance elements on the profitability of CBs and IBs. The study concluded that the size of board of directors have a

significantly negative impact on the financial health of both banking systems. In the contrast, by applying panel regression analyses method Yung (2009) pointed out that the sizes of board of directors have significant effect on good governance and profitability of both banking systems. A study carried out by Goddard, Molyneux, and Wilson (2004) suggests a negative association amid financial performance and capital adequacy ratio of both types of banks.

Zimmerman (1996) pointed out that management decisions are highly focused on loan portfolio to evaluate the banks performance. Therefore, the bank's performance depends on the management quality. Kosmidou et al. (2005) pointed out that high capital adequacy ratio reduces dependency on external funds sources which in turn results in higher profit. Bourke (1989) analyzed the effect of staff and operational expenses on the profitability. The study found that increase in staff and operational expenses decreases return on assets which in turn reduce profitability. On the other hand, Molyneux (1993) found that staff and operational expenses have significantly positive effect on banks profitability, thus an increase in staff and operational expenses bring increase in banks profitability.

2.5   EMPIRICAL REVIEW

IBs have been emerged as an alternate to CBs throughout the world specifically in Muslim countries. The collective balance sheets of interest free banking system had reached to $1 trillion in the year 2010 from $150 billion in the year 1990 and there are approximately 300 plus sharia compliant institutions functioning across 80 countries (Cevik & Charap, 2015). Beck et al. (2010) asserts that there are five primary principles which differentiate Islamic banking from conventional banking, these principles are:

1)   The prohibition of speculation (Maisir).

2)   The interest (Riba) prohibition.

3)   The prohibition of illegal economic transaction such dealing in drugs, weapons, pork, alcohol and any other product or activities which are forbidden in Sharia.

4)   Sharing the risk and profit amid the depositors and borrowers.

5)   All transaction must be involved on real assets.

El-Hawary, Grais, and Iqbal (2004) asserts that Islamic sharia prohibit all those transactions which do not deal in any fixed asset as well as speculative transaction such as futures, options. Similar transaction such as foreign exchange dealing, inflation indexing and government bonds which involves fixed coupon rates. Although Islamic banking system is governed by religious restriction and principles, however the development of IBs is also relying on the development of legal, audit and accounting framework. Samad and Hassan (2006) found that IBs perform well as compared to CBs. The study stated that IBs achieving the benefits of good governance system which guides them to control their monitoring cost and administer their financing activities.

Mills and Presley (1999) and Mejia, Aljabrin, Awad, Norat, and Song (2014) suggested that economies depending more on equity and less on debts is more superior and stable than economy entirely based on only debts. Čihák and Hesse (2010) conducted a study to determine the degree of insolvency risk of both banking systems. The study took the sample of 120 banks comprising of 60 CBs and 60 IBs for the period of 1993 to 2004 and used Z-score as a pointer of insolvency risk. The study concluded that small IBs are more stable as compared to small CBs but large IBs are less stable and more risky than larger CBs. Rokhim and Rokhim (2011) investigated the performance of 71 CBs and 12 IBs in Indonesia for the time span of 2004 to

2009. The study found that CBs perform better as compared to IBs except for the period 2008-2009 crises where the performance of both banks was found similar. The study of Zeitun (2012) analyzed the impact of both internal or microeconomic and external macroeconomic factors on the financial performance of both conventional and IBs in GCC countries. The study suggested that GDP was positively associated with banks profitability while inflation is negatively associated with the banks financial performance. Pasiouras and Kosmidou (2007) examined the effect of GDP growth and inflation rate on the performance of banks in 15 European countries for the time span of 1995-2001. The study concluded that bank performance is positively associated with both GDP growth and inflation rate. A comparative study of Olson and Zoubi (2008) analyzed the performance of CBs and IBs in GCC countries for the time span of 2000-2005. By using 26 different ratios the study concluded that CBs are more efficient and less risky than IBs.

Haron (1997) demonstrated the effect of various internal and external factors on the financial performance of IBs. In his study he concluded that liquidity, total expenditures, profit sharing ratio, market size, money supply, bank size and interest rate are significantly correlated with the profitability and income of IBs. Lemonakis, Voulgaris, Vassakis, and Christakis (2015) conducted a comprehensive study to determine the efficiency and risk level for banking sector in MENA countries using Z-score as a proxy for insolvency risk. The study found a lower Z-score value which shows greater bankruptcy risk. The result of the study also suggested that larger bank size and low quality of assets leads to higher insolvency risk. According to Kuran (2004) IBs and CBs are based on two distinct philosophies thereby producing two different financial outcomes. Numerous studies have been carried out to investigate the performance of both type of banks in term of liquidity, profitability and risk but very few studies have concentrated to

determine that whether two different philosophies results in different performance outcomes. Ryu, Piao, and Nami (2012) found that IBs are more consistent and profitable than CBs in Malaysia. However, Samad and Hassan (2006) revealed that the profitability and liquidity of IBs is not much different form the CBs.

Hasan and Dridi (2011) explored the effect of financial crises on the profitability of both IBs and CBs for the period of 2009-2009. The study revealed a distinct affect for both type of banks and concluded that the profitability of IBs was more affected due weak risk management in the period of crises as compared to CBs. Godlewski et al. (2010) used Lerner indices to determine the market power of both type of banks across 17 countries for the period of 2000 to 2007. The Lerner indices indicated that CBs have greater market power as compared to IBs. Dermine (2000) carried out a study to analyze the efficiency of 20 Portuguese banks by using Data Envelopment Analysis technique and nonparametric tool. The study divided 20 banks into three categories which were old saving banks old commercial banks and new banks. The result concluded that technological changes with the passage of time as enumerated by DEA model that the efficiency of modern banks is increased by 59% when compared to the performance level of old saving and commercial banks. Hassan (1999) investigated the cost efficiency and profitability of 154 banks in Hungary over the period of 1993 to 1997. In their study they used Econometric Frontier Approach (EFA) to evaluate the cost efficiency and profitability of banks. The result suggested that average bank in Hungary can enhance its profit and cost categories by 29.1 and 21.6 respectively when compared to best practiced banks.

Stavarek (2003) examined the efficiency of 263 CBs in Visegard region before these states joined the central Europe for the time span of 1999 to 2002. The study used Data Envelopment Analysis (DEA) and non-parametric technique to evaluate the degree efficiency for

four states of Visegard. The study found that Czech and Hungarian banking industry sere most efficient nearly followed by the Poland banking industry while Slovak banking industry was less efficient as compared to the banking industry of the above three states. Yudistira (2003) examined the efficiency level of 18 IBs for the time span of 1997 to 2000. The study used Data Envelopment Analysis technique and non-parametric tool to evaluate the efficiency of IBs. The results indicated that IBs had shown considerable efficiency for the sample period. Additionally, the result found that IBs were more efficient in the year 2000 by achieving the efficiency value 0.909 as compared to values 0.901, 0.871 and 0.898 for the years 1997, 1998 and 1999 respectively. However, the overall efficiency of 18 IBs was recorded low when compared to the efficiency of CBs operated in different countries for the sample period. Moreover, the study found that IBs operating in Middle East are relatively less efficient than the other regions of the world. The author provided the reason that IBs operating outside the Middle East have good governance practices and are relatively new as compared to IBs operating in Middle East.

Mokhtar et al. (2006) examined the cost and technical efficiency of IBs and CBs in Malaysia. To analyze the degree of efficiency the study used annual reports of 22 IBs and 20 CBs to accumulate data for the time span of 1997 to 2003. By using the Stochastic Frontier Approach the study found that IBs in Malaysia were grown very rapidly in term of deposits, financial and assets base for the sample period as compared to CBs. Cost and technical efficiency are providing useful insights to policy makers of IBs to efficiently employ scarce resources in banks. The study of Qayyum (2007) evaluated efficiency of 20 banks operating in different nations for the time span of 1991 to 2005. The study adopted Data Envelopment Analysis and Non-parametric programming technique to examine the efficiency level. The study found that banks are more efficient in the year 2005 by reaching the score of 87% as compared to 65% of

efficiency score in the year 1991. This efficiency growth allows the banks to expand their operations, enhance their capital, and improve their assets quality and profits. Furthermore, the author pointed out that this increasing development also happens due to increasing competition among banks. The study examined the efficiency of 2 full fledge IBs and 12 Islamic windows of CBs in Malaysia for the time span of 1998 to 2004. The study used Data Envelopment Analysis technique and nonparametric programming technique to evaluate the financial efficiency of these 14 banks. The study estimated 69% efficiency score for IBs in Malaysia, which is in range with other studies conducted across the world such as 56% in UK. However, it was below the satisfactory level and therefor, indicated that Islamic bank had wasted about 31% of their inputs as compare to best practiced banks.

The study of Sufian and Habibullah (2009) evaluated the cost efficiency of IBs in context of Asian and MENA economies for the time span of 2001 to 2006. The study took the sample of 37 IBs which comprises of 21 Asian and 16 MENA economies. The author applied Data Envelopment Analysis and nonparametric programming technique in order to estimate efficiency for the sample data. The study pointed out that cost efficiency of IBs in both regions had been on decreasing trend for the period of 2001-2003 and then shown some improvement in the 2004 before going toward decreasing trend again in 2005. However, the average efficiency score for the sample period was 65.4% which indicated that IBs are wasting about 34.6% of their inputs.Canakci (2008) investigated the pre and after crises efficiency of banking system in the economic environment of turkey over the period of 1991 to 2006. To determine the efficiency of Turkish banks before and after the crises the study used Data Envelopment Analysis and non-parametric programming technique. The study concluded greater efficiency after the crises of

2000-2001 as compared to pre crises period. This is because of serious restructuring efforts made by the banking management after crises.

Haron (1997) examining the macroeconomic factors of IBs profitability stated that theoretically CBs perform better in bigger market which leads to higher profitability but it is not true in case of Islamic banking system. He argued that IBs performs better even in a short term by using their capital in an efficient way. Similar, IBs are more able to perform efficiently in competitive market than markets holding monopolies. This is in line with the assumption that in a competitive market businesses are required to be more flexible to adjust with random changes and to produce more innovative policies and strategies to compete efficiently in the market. In contrast, CBs are more efficient in monopolistic market because competitive market involve them in adverse selection, moral hazards, less profitability and higher rate of default. The study of Bashir (2003) assessed the financial performance of 14 IBs in eight different countries of the Middle East namely Egypt, Bahrain, Kuwait, Jordan, Sudan, United Arab Emirates (UAE) Qatar and Turkey for the time span of 1993 to 1998. His study used ROE, ROA, NIM and Profit before tax (PBT) ratios and other internal and external variables such as bank size, leverage, financial market and regulations to analyze the performance of IBs. The study concluded that debts and equity have a positive effects on the profitability of IBs therefore, higher loans and equity results in higher profitability for IBs. A similar study was conducted by Hasan (2004) using a relatively large sample of 41 banks from 21 countries for the time span of 1994 to 2001. The study scrutinized the IBs performance in respect of profitability, capitalization and efficiency by using financial ratios analysis, internal and external factors, financial structure variable, economic measures and country variables. The study revealed that IBs are more capitalized than CBs and pointed out a positive association amid profitability and capital but negative relation amid loans

and IBs profitability. The study found a negative correlation amid bank size and profitability of IBs which specifies that smaller banks have greater profitability ratio as compare to larger IBs. Additionally, the study revealed no significant association amid inflation and profitability of IBs. The study also found that overhead expenses were positively correlated with the profitability of IBs which suggests that higher overhead expenses leads to higher profitability. Iqbal (2001) carried out a comparative study to analyze the performance of CBs and IBs for the time span of 1995 to 2001. The study took the sample of 12 banks including both Islamic and CBs and used various ratios such as liquidity ratio, capital assets ratio, ROE ratio, ROA ratio, cost to income ratio and development ratio to measure the growth in term of total deposit, total equity, total revenue, total assets and total investments for the sample period. The study found higher ROE and ROA ratios for IBs as these ratios were 22.6 and 2.3 respectively as compared to 15 and 1.35 for CBs. The study also concluded that the depositor of CBs bear less risk as compare to IBs as their principal amount is guaranteed by the banks. On the other hand, based on the Risk-Return theory the depositors of IBs are expected to get higher return because of bearing high risk.

Alkassim (2005) analyzed the determinants of IBs profitability in GCC countries over the period of 1991 to 2000. The study found a positive association amid capital ratios and profitability for IBs. In addition, the study revealed that deposits was positively associated with CBs profitability while have a negative correlation with the profitability for IBs. Čihák and Hesse (2010) conduced an empirical study to analyze the financial stability of convention and Islamic in 20 countries namely Bahrain, Brunei, Iran, Indonesia, Bangladesh, Jordan, Kenya, Malaysia, Kuwait, Lebanon, Qatar, Sudan, Saudi Arabia, Pakistan, Gambia, Mauritania, Gaza, Yemen, Tunisia and United Arab Emirates (UAE). The study took the sample of 474 banks,

comprising of 397 CBs and 77 IBs which resulted in 3768 observations for the time span of 1993 to 2004. The study found that small IBs have stronger financial stability than small CBs as well as from large IBs. However, large CBs have better financial stability as compared to larger IBs.

The comparative study of Samad and Hassan (2006) analyzed the financial performance of CBs and IBs in Malaysia. The study used the data of one IB named as "Bank Islamic Malaysia Berhad" and of eight CBs for the time span of 1984-1997. The study measured the financial performance in respect of solvency and risk, liquidity and community involvement. Financial ratios were used as a major tool to measure the financial performance; additionally, T-test and F-test were used in order to determine significance. The result of the study revealed that IB was more liquid and therefore, has no liquidity shortage and was comparatively less risky, less profitable and more solvent than CBs. Additionally, the study found that loans supply under joint venture, businesses sharing their profit and loss, and partnership profit are not popular in Malaysia. It is due to the fact that, 40%-70% bankers surveyed signify that low level of knowledge and competent bankers in selecting, designing, managing and evaluating profitable projects is a major cause.

Iqbal (2001) investigated the financial performance of CBs and IBs taking a sample of 6 banks for each type of bank for the period of 1990-1980. The financial performance of these banks was measured in terms of liquidity, risk, profitability, deployment efficiency and capital adequacy. To assess the financial performance, the study used trend and ratio analysis. The findings of his study shows knowledgeable that the financial performance of IBs was very well in almost all years as compared to CBs. Additionally, the study found that IBs are more profitable, well capitalized, and cost effective and are more stable than CBs.

Hassan (1999) investigated that how different characteristic of banks and their financial environment affects the financial performance of IBs. The study used the sample of different IBs collected from 21 countries across the word for the time span of 1994-2001. To analyze the financial performance different internal and external feature of banking sectors was measured in order to predict efficiency and profitability. The result of the study also suggests that IBs were positively affected by loan-to-asset ratios, high Capital and favorable conditions for macroeconomic activities. On the other side taxation have a negative association with IBs financial performance.

Yudistira (2004) conducted an empirical study to examine financial performance and efficiency of eighteen IBs for the time span of 1997-2000. The study implemented Non-parametric technique and Data Envelopment Analysis tool to compute scale efficiency, technical efficiency and pure technical efficiency. The study result revealed that efficiency ratio for IBs was just below 90% which was greater than any CB. However, IBs were greatly influenced by global crises during the period of 1998-1999 although these IBs performed very well after the period of global crises. The result of the study also suggested that small and medium level IBs had diseconomies of scale. The study of Samad and Hassan (2006) analyzed the financial performance of CBs and IBs in Bahrain over the period of 1991-2001. The study used a sample of 21 banks which was comprised of 6 IBs and 15 CBs in Bahrain. The financial performance was measured in term of credit risk ratios, liquidity and profitability. The comparative study of Bahrain IBs with CBs found that both IBs and CBs have diverse credit financial performance. However, both banking system were similar in term of liquidity and profitability financial performance.

The study of Saleh and Zeitun (2006) investigated the financial performance and efficiency of IBs in Jordan. The study used a sample of two IBs operating in Jordan. The financial strength of these banks was measured in respect of liquidity, capital structure and profitability. The study used financial ratio in order to run liquidity, capital structure and profit maximization tests. The study results recommend that the efficiency level of both IBs was increasing with passage of time and had focused on short investment objectives. Their findings also showed an increase in the profitability of both banks.

Sufian (2011) studied the operational efficiency of both foreign and domestic IBs in Malaysia for the period of 2001-2005. The study used non-parametric and Data Envelopment Analysis (DEA) to measure and estimate the operational efficiency of each bank. The study used two different approaches identify that how efficiency values vary by changing inputs and outputs. To scrutinize that how risk factor influence IBs efficiency, they included problem loans as an input and as a nondiscretionary variable. The results of the study presents that the Malaysian IBs had experienced technical inefficiency as well as economy of scale inefficiency. Additionally, the study revealed that foreign banks were technically more efficient than domestic banks. The results suggested that economies of scale might be overestimated due to the exclusion of risk factors; additionally, pure technical efficiency estimates were likely to be more responsive to the risk factors exclusion.

Johnes et al. (2009) investigated operational efficiency of conventional and IBs in the Gulf Cooperation Council (GCC) countries for the time span of 2004-2007. The study used Data Financial Ratio Analysis (FRA) and Envelopment Analysis (DEA) to evaluate operational efficiency. Using financial ratio analysis, the results of study revealed that IBs were less cost

effective but profitable and revenue effective than CBs. Additionally, the results of DEA suggested that CBs are more efficient at overall as compared to IBs.

The comparative study of Moin (2008) analyzed the financial performance of CBs and IBs in Pakistan for the time span of 2003-2007. The study used the sample of one IB and of five CBs and their performance was evaluated in term of risk, liquidity, profitability and efficiency. the study used financial ratio analysis as main tool for evaluation, these ratio includes Debt to Equity ratio (DER), ROA, Loan to Deposit ratio (LDR), ROE, Income to Expense ratio (IER) and Asset Utilization (AU) were used to examine the financial performance. F-test and T-test were used to determine the significance of distinct financial performance of both sets of banks. The study pointed out that IBs are less risky but also less efficient and less profitable when compared to CBs. However, both IBs and CBs were almost similar in respect of liquidity.

Parashar (2010) investigated the financial performance of 6 CBs and 6 IBs in Gulf Cooperation Council (GCC) region for the time span of 2006-2009. The study evaluated the financial performance through analyses of 6 financial ratios namely Equity to Total Asset Ratio, Liquid Assets to Total Assets, Cost to Income Ratio, Average ROE ratio, Average ROA ratio and Capital Asset Ratio. The study revealed that IBs suffered more during the period of global crises in terms of liquid assets to total assets, average ROE and average ROA, while CBs had suffered in terms of liquidity and return on average assets. Additionally, during the period of the study (2006-2009), IBs have shown better financial performance over CBs in the GCC countries.

Ansari and Rehman (2011) conducted a comparative study in order to evaluate the financial performance of CBs and IBs in Pakistan over the period of 2006-2009. The study used empirical data of 3 CBs and of 3 IBs to compare the financial efficiency and performance of both

type of banks. For financial analysis the study used eighteen (18) financial ratios which measures liquidity, profitability, capital adequacy, risk and solvency, deployment and operational efficiency. ANOVA and t-test was used to determine the significance level and differences of these ratios amid these banks. The results of the study suggested that IBs were less risky, highly liquid and operational more efficient than CBs in Pakistan.

Zeitun (2012) conducted a study in GCC countries for the time span of 2002-2009, to evaluate various factors influencing the CBs and IBs financial performance. The study used the sample of total 51 banks which was comprised of 13 IBs and 38 CBs. The factors assessed during the study included on foreign ownership, macroeconomic and bank specific variables. The study results concluded that foreign ownership have no effect on financial performance of IBs and CBs. Cost to income ratio had a negative impact on the financial performance of both type of banks. Moreover, the results of the study suggested that equity had significantly positive effect on the profitability of CBs. Bank size had a positive relation with the economies of scale for IBs; however, it was not significant for CBs. Banking development and bank's age have no effect on the financial efficiency and performance of both types of banks. Finally, the study also found that a country Gross Domestic Product (GDP) have a positive association, while inflation have a negative association with financial health of banks.

A comparative study of Guyo and Adan (2013) analyzed the financial efficiency and performance and operation efficiency of conventional and IBs in Kenya for the time span of 1991-2005. The study used a sample of 2 IBs, namely African Banking Corporation, Gulf African Bank Limited and of eight (8) CBs operates in Kenya. The study used questionnaires as a main tool to collect data for the analyses, where the respondents of questionnaires' were included on heads of operation, heads of four other departments and the intermediate managers

of both banks. Ratio analysis was used to determine the financial performance and operation efficiency of both types of banks. The result of the study concluded that IBs were cost effective, less risky and higher liquidity, but poor profitability as compared to CBs in Kenya. A similar comparative study was conducted by Halkano (2012) in the same place (Kenya) for the period of 1995-2008. The study sample contained on two IBs, namely First Community Bank and Gulf African Bank, and 5 CBs in Kenya. The study measured four broad categories of financial performance which included on liquidity and solvency, profitability and operational efficiency. The study results concluded that IBs were seemed well in terms of liquidity and solvency risk, while CBs were better in profitability and operational efficiency. The study also indicated that CBs performed better on the whole duration of the study as compared to IBs.

Metwally (1997) examined the financial performance of CBs and IBs in term of leverage, credit risk, profitability and efficiency. The study took a sample of 30 banks and applied different statistical tools and techniques in order to measure the performance of conventional and IBs over the period of 1992 to 1994. The study unveiled that profitability and efficiency of both banking system were mostly similar during the study period. Rosly and Bakar (2003) conducted a comparative study to analyze the performance of CBs and IBs in Malaysia for the time span of 1996 to 1999. The study found that IBs have better (ROA) as compared to CBs but this doesn't prove their efficiency because the study also pointed out that IBs have low assets utilization ratios and low investment margin ratio.

Jaffar and Manarvi (2011) investigated the performance of conventional and IBs operating in Pakistan. The study took the sample of 10 banks by choosing 5 banks from each banking system and used CAMEL analysis in order to assess and compare their performance for the time span of 2005 to 2009. For the effective use of CAMEL analysis the study used various

ratios to estimate every factor affecting the performance of both banking system. The study revealed that IBs are performing well in term of liquidity and holding appropriate capital. In contrast, CBs are performing well in term of earning capability and management quality. The study also found that both banking systems are nearly same with regard to assets size. However, CBs showed a small debt loss ratio caused by enhanced debt recovery policy.

The study of Safiullah (2010) compared the performance of interest based and interest free banking systems in Bangladesh. The study took the sample of total 8 banks comprises of 4 conventional and 4 IBs for the period of 2004 to 2008. Ratio analyses was used to measure the performance of both banking system in terms of profitability, productivity, commitment to community, contribution to the economy, efficiency, business development, efficiency and solvency of both types of banking systems. The study pointed out that CBs are performing better in terms of commitment to community, contribution to the economic development, productivity and efficiency. On the other hand, IBs are performing better in terms of solvency and liquidity.

Ali, Zainuddin, Rashid, and Jusoff (2009) assessed the performance of interest based and interest free banking system in Pakistan for the time span of 2004 to 2008. The study was aimed at to determine that whether IBs are performing better than CBs in Pakistan. To analyze the performance ratio analyses was used in order to evaluate the profitability, liquidity, solvency, risk level and efficiency of both banking sectors. The study pointed out that IBs have better asset quality and are more liquid and profitable than CBs. Another study conducted by Alam, Raza, and Akram (2011) evaluated the efficiency and performance of IBs and CBs in Pakistan. The study used 9 financial ratios to determine the profitability, liquidity risk and credit risk, while Trend analyses was used to examine the trends in balance sheets and income statement over the time span of 2006 to 2010. The study found that both banking system are nearly same in respect

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of profitability. The trend analyses of balance sheet revealed that IBs showed good trends than CBs. However, both banking sectors are not much different in respect of income statement trends.

Ansari and Rehman (2011) scrutinizes the performance of IBs and CBs by using financial tools. The study selected two banks from each banking sector and collected the required data for the analysis over the period of 2007 to 2010. The study used financial ratios analysis to assess the profitability, credit risk, liquidity and earning and assets utilization efficiency of both types of banks. The study found that IBs less efficient due to poor management quality and increasing operation cost as compared to CBs.

Hanif (2014) examined and compared the performance of IBs and CBs in Pakistan to find out that which banking system is performing superior than the other. The study took the sample of 22 CBs and 5 IBs for the performance comparison. For comparison the study used major performance indicators divided into internal and external factors. External factors included on customer conduct and public understanding about both types of banking sector. Internal factors included on four ratios which were credit risk, profitability, liquidity and solvency. The results of the concluded that IBs are dominant in credit solvency maintenance and risk management while CBs leading in profitability and liquidity.

A comparative study of Samad and Hassan (2006) found that IBs are less risky and have greater liquidity as compared CBs. In contrast, Rashid and Nishat (2009) pointed out that IBs are doing poor in profit maximization, operating efficiency and investor management. Jaffar and Manarvi (2011); Sumachdar and Hasbi (2010) concluded that IBs performed better as compared to CBs. Hasbi and Haruman (2010) used CAMEL analysis and found that IBs have superior

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performance than CBs. Kuppusamy, Saleh, and Samudhram (2010) used profitability indicators and conformity financial indicators to compare interest based and interest free banking sectors. The study concluded that IBs are doing well and has become a standard institution.

Kader, Asarpota, and Al-Maghaireh (2007) investigated the performance of IBs functioning in UAE. Empirical data for the study was derived from the financial statements of 3 IBs and 5 CBs for the time span of 2004 to 2006. To measure the performance financial ratio analysis was used to examine the performance of IBs in UAE in terms of solvency, risk, liquidity and profitability. The study revealed that IBs are more profitable and efficient but have lesser liquidity and riskier as compared to CBs in UAE.

Widagdo and Ika (2008) used inter-bank comparison and inter-temporal comparison to evaluate the performance of IBs and CBs. The study found that there was not much difference in the performances of IBs and CBs. The study concluded that IBs are performing better in term of liquidity while CBs are performing well in profitability.

Algaoud and Lewis (2007) conducted experimental performance analysis of the IBs. The study used ROA, ROE and profit after tax for 16 different banks in 8 different countries using a regression analysis technique. The study results suggest that a higher Equity to Asset ratio and a higher asset to loan ratio reacts with the growth in GDP and is thus reflected in higher profit margins for the IBs. The results also suggest that a higher capital to asset ratio results in a higher profit ratio for the banks. Chukwuogor-Ndu and Wetmore (2006) analyzed the performance of CBs in USA using the ROE, NII and provision for loan losses to assess the profitability of the banks. The sample of the study was divided into small, medium and large size banks in USA. Results of the analysis presented that the small banks in the sample have higher profitability as

compared to large banks. The interest income of the banks however is higher in large banks than small banks in the sample.

Hasan and Dridi (2011) investigated the effect of financial crises on the profitability of both IBs and CBs for the period of 2009-2009. The study revealed a distinct affect for both type of banks and concluded that the profitability of IBs was more affected due weak risk management in the period of crises as compared to CBs. Godlewski et al. (2010) used Lerner indices to determine the market power of both type of banks across 17 countries for the period of 2000 to 2007. The Lerner indices indicated that CBs have greater market power as compared to IBs.

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In another study by Čihák and Hesse (2010) the financial stability of IBs and CBs was analyzed. The study selected a sample of 20 countries which have both IBs and CBs operating there. The banks are categorized based on their assets value less than or more than one Billion US dollar. The study used Z-scores for analyzing the financial stability of the banks and the results suggest that small IBs are more stable as compared to large IBs. The large CBs on the other hand are more stable as compared to large IBs. Hasan (2004) analyzed the standards which can be used for analyzing the performance of IBs. A model which included a set of different measures was used by the study to evaluate the performance of sampled IBs in the study. The study revealed that there are no specific accounting standards that could be used for analyzing the performance of IBs and presented different recommendations for providing theoretical grounds for performance measurement of IBs. Haq (1996) analyzed the problems faced with the

performance evaluation of IBs and the mechanisms which can be used for performance evaluation of IBs.

Descriptive systematic steps were presented by the studies which were recommended for performance evaluation of IBs. These include the economic role of IBs, the role of legitimate oversight in IBs, administrative and accounting aspects of IBs and the social role of Islamic Bank industry. In literature review comparative analysis approach is often used to measure the performance of similar organization. To compare and measure the performance of banks financial ratio analysis tools have been extensively used in literature review Saleh and Zeitun (2006); Spindler (1991); Samad (1999); Elyasiani, Mehdian, and Rezvanian (1994) Sabi (1996) Samad and Hassan (2006) and Akkas (1996).

A study conducted by Samad (1999) in Bahrain to compare IBs & CBs for the time span of 1991-2001.The study found that the performance of both type of banks in term of credit creation are distinct from each other but there is little difference between the liquidity and profitability of both type of banking system. Another study carried out by Srairi (2010) using stochastic frontier tool to analyze the cost and profit efficiency. This study was based on analyzing 71 CBs for the years 1999 to 2007 in GCC countries. The study concluded that Conventional Bank system is more efficient as compare to IBs.

Iqbal (2001) conducted a study using trend and analysis tools to measure the performance of IBs for the period of 1990 to 1998.Another study carried out by Kaleem and Isa (2003) using econometrics technique to analyze the deposit return of conventional and IBs. The result of these studies reveals that the IBs is performing better than CBs and provide a significant contribution to the development of an economy. Akbar, Rao, and Chandulal (2010) carried out a study to

compare the IBs & CBs. The study found that networking capital and liquidity risk has positive relationship to assets. The return on asset of IBs and the capital adequacy of CBs has significant and positive association with liquidity risk.

The comparative study of Wasiuzzaman and Gunasegavan (2013) measured the performance of conventional and IBs in Malaysia. The study reveals that ROA, bank size and board size of IBs & CBs are mostly similar to each other. The study also shows that operational efficiency, capital adequacy, liquidity and asset quality for IBs were better than CBs. Safiullah (2010) examined the performance of IBs & CBs by using ratio analysis in Bangladesh for the period of 2004 to 2008.the study found that the CBs are more productive and performing more efficiently than IBs. Ali et al. (2009) carried out a study regarding CBs and IBs which reveals that clients are more satisfied using CBs than IBs. Siraj and Pillai (2012) conducted a study in GCC region to compare IBs & CBs by using ratio analysis for the year 2005 to 2010. The sample of six IBs and six CBs was used for the study. The study shows that IBs have higher operating profit and have higher financed equity as compared to CBs.

2.6   HYPOTHESIS OF THE STUDY

Based on the literature review, following hypotheses are developed for the study.
H_{11}: Capital Adequacy has a significant effect on Profitability of the banks
H_{12}: Assets Quality has a significant effect on Bank's Profitability
H_{13}: Management Quality has a significant effect on Profitability of Banks
H_{14}: Earning Quality has a significant effect on Profitability of Banks
H_{15}: Liquidity Quality has a significant effect on Profitability of Banks
H_{16}: Conventional Banks are better than Islamic Banks in term of Return on Equity
H_{17}: Conventional Banks are better than Islamic Banks in term of Return on Assets
H_{18}: Conventional Banks are better than Islamic Banks in term of Net Interest Margin

2.7   CONCLUSION

Sehrish et al. (2012) stated that banking sector plays a pivotal role in the economic growth and development of a country as it contributes to the economic growth and stability of any country and has great importance for decision making process for borrowers, savers and investors. In Pakistan both Conventional (interest based) and IBs (interest free) operates and provides different services and products.

Beck et al. (2010) compared the IBs and CBs by taking into account their financial performance across different countries throughout the world during recent crises. The result of the study reveals that both type of banking system was affected at the time of crises, additionally IBs had the advantage of higher capitalization and higher liquidity reserve over conventional banking, thus IBs had better financial efficiency and performance than conventional banking. According to IBs was more suffered during the global crises in terms of leverage, capital ratio and average ROE but have better financial performance in term of higher average ROA and higher liquidity reserves. Argue that IBs are less risky than CBs but are less efficient and profitable as compared to CBs.

Various empirical studies have been conducted across the world to compare IBs and CBs in term of financial performance in different time span and different region. However, the number of such studies is limited because the required data for the study have been unavailable as the recent surprise growth of IBs. Studies conducted to compare the conventional and IBs locally in term of financial performance have also remained low because of recent growth of Islamic Banking in Asia Jamal (2013). Therefore, this study focused on comparing the financial strength and performance of CBs and IBs locally in order to fill the research gap.

In Pakistan several studies have been carried out to measure and compare the CBs and IBs performance. Jaffar and Manarvi (2011) made a comparative analysis to analyze the performance of both CBs and IBs by using CAMEL test for the time span of 2005 to 2009. The result found that CBs is performing better in term of earning ability and liquidity management. The study also presents that asset quality is mostly similar in both types of banks. Moreover, the study also concluded on the basis of UNCOL ratio analysis that the IBs perform better than CBs. Moin (2008) also conducted a similar study for the time span of 2003 to 2007. The study used twelve ratios for the comparative analysis. The study concluded that as the CBs are performing better than IBs. Usman and Khan (2012) investigated the performance of IBs and IBs for the time span of 2007 to 2009 in Pakistan. The study concluded that IBs are performing better than CBs in term of profitability, higher liquidity and growth. Similar study has been conducted by Mughal (2017) in the context of Pakistan for the time span of 2010 to 2014. The study evidenced higher profitability for CBs than IBs.

Chapter: 3

Methodology

The study uses a systematic analysis approach to compare the financial performance and the factors determining the IBs and CBs financial performance in Pakistan. The first part of this chapter presents the Theoretical framework of the study. The second section of the chapter presents the choice of the tools and relevant techniques used to collect and analyze the data.

3.1   THEORETICAL FRAMEWORK

The theoretical framework of the study is given by the following figure.

The figure above suggests that financial efficiency and performance of the IBs and CBs is the dependent variable of the study. The explanatory variable of the study includes the capital adequacy, Asset Quality, Management Quality, Earning Quality and liquidity quality.

Figure 3. 1   Theoretical Framework

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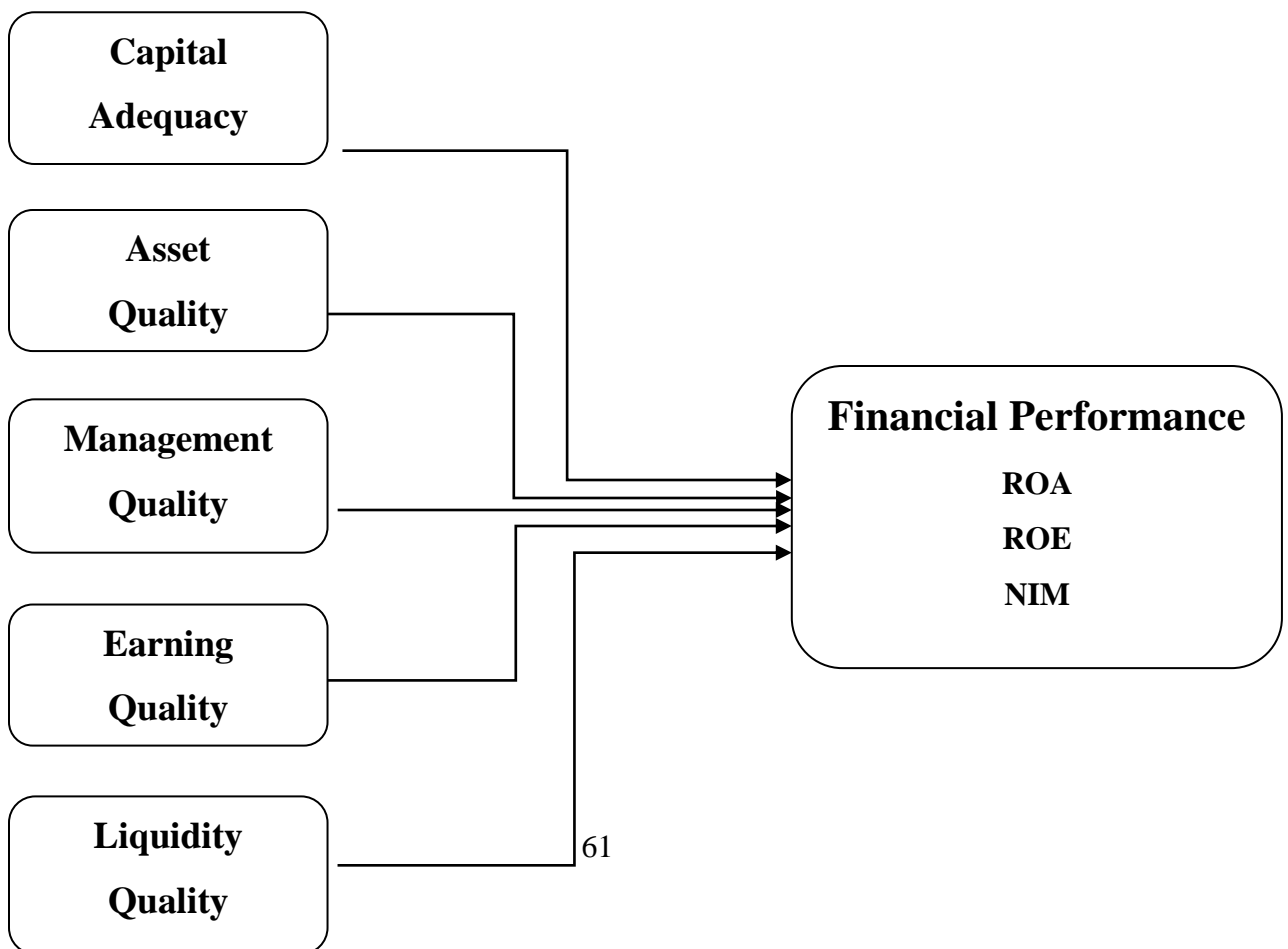
3.2   METHODOLOGY OF THE STUDY

The section presents the choice of methods and techniques used by the study in order to accomplish the objectives of the study.

3.2.1   Variables of the study

The study analyzes the impacts of different explanatory performance measures of IBs and CBs and the difference in financial performance and performance measures of IBs and CBs. The independent and dependent variables of the study are outlined below.

3.2.1.1 Dependent Variables

The dependent variables used by the study are as follow,

I.   ROE

Return on Equity ROE is the first dependent variable of the study used for the financial performance of IBs and CBs. The ROE is the ratio of profitability to total equity of the firm.

ROE = Net Income / Total Equity

II.   ROA

Return on Asset is the second dependent variable of the study for performance of the IBs and CBs. The ROA is the ratio of Net income with the total assets of the IBs and CBs.

ROA = Net Income / Total Assets

III.   NIM

Net Interest margin is the third dependent variable used in the study for measuring financial performance of IBs and CBs. It is the difference between the net interest paid by the banks and the interest earned by them on their various products.

NIM = Net Interest Income- Net Interest Expense

3.2.1.2 Independent Variables

The independent or explanatory variable used by the study are presented as follow.

I. Capital Adequacy

Capital adequacy measures the strength of the banks in terms of capital over assets. The TETA, Total Equity to Total Assets is the explanatory variable used for measuring the capital adequacy of the Banks.

TETA = Total Equity / Total Assets

II. Assets Quality

This is the second explanatory Variable used by the study. The assets of the banks are present at the left hand side and mostly come from the loans or advances by the banks. The quality of the assets in this study represents the Provision of loan losses to the total loans of the Banks (PLLTL).

PLLTL = Provision of Loan Losses / Total Loans

III. Management Quality

Management quality is the third explanatory variable used in the study. The management quality measures the bank's ability and management to give loans to trustworthy and low default risk customers and generate deposits for the banks with efficiency. The ratio of Total Loan to total deposits is used for measuring the Management Quality.

TLD = Total Loans / Total Deposits

IV.   Earning Quality

The ratio of Total operating cost and Total operating revenue is used for determining the earning quality of the Banks.

EQ = Total Operating Cost / Operating Revenue

 V.   Liquidity Quality

The ratio of Liquid assets with respect to the total assets of the bank is used for measuring the quality of the Liquidity of the banks.

LIQD = Total Liquid Assets / Total Deposits

3.2.2   Sample of the Study

The study analyzes the performance measures and financial efficiency and performance of IBs and CBs in Pakistan. There are currently 34 different local and foreign schedule Banks operating in Pakistan. These Banks include 13 IBs, which further can be divided into 5 Full fledge IBs and 8 CBs with IB Divisions. For the purpose of the study a sample of 10 banks is selected from the schedule banks in Pakistan, five each from IBs & CBs. The sample of the study is given below,

a) CBs

1: Allied Bank Limited

2: Soneri Bank Limited

3: Bank Al Habib Limited

4: Faysal Bank Limited

5: Bank Al Falah Limited

b) IBs

1: Meezan Bank Limited

2: Bank Islami Pakistan

3: Dubai Islamic Bank Limited

4: Allied Bank Islamic Bank wing

5: HBL Islamic Bank wing

3.2.3   Data Collection

The study uses secondary data for the analysis of the study objectives. The secondary data for the literature of the study is mostly collected from published books, journals, articles and other web sources.

The secondary data for both the IBs and CBs is collected for a period of 7 years from 2010 to 2016. The secondary data for the variables in the study is collected from the Annual Reports of all the Banks in the sample of the study. The annual reports of all the banks can be obtained from the official websites of the respective banks. The annual reports of the banks can also be obtained from the Pakistan stock exchange Official Website.

3.2.4   Data Analysis

The study uses different statistical techniques in order to analyze the secondary data collected for the variables under analysis of the study. The study uses descriptive statistics, Independent sample T test, correlation Analysis and Regression analysis techniques.

3.2.4.1 Descriptive Analysis

In order to describe the data of the study descriptive statistics is used by the study. The descriptive statistics used in the analysis consist of maximum, Minimum, Mean and Standard deviation values for all the variables of both IBs and CBs.

3.2.4.3 Correlation Analysis

The correlation analysis is another tool used for analyzing the association between different variables. The value of Correlation coefficient ranges from -1 to +1 where -1 stands for weak correlation while +1 stands for strong correlation between the variables. The study uses the correlation analysis in order to identify the association of the dependent variables with the explanatory variables under analysis of the study.

3.2.4.4 Independent Sample T test

The independent sample T test is used for analyzing the difference between the mean of two groups for their score on a single criterion. The Independent Sample T test in this study is used for finding the significance of the mean difference between the IBs and the CBs on the different financial performance measures and the factors determining the financial efficiency and performance of the IBs and CBs in the sample.

3.2.4.5 Regression Analysis

It is a statistical tool used for analyzing the impacts of explanatory variable over the dependent variable under analysis of the study. The multiple regression analysis technique is employed by this study. The multiple regression analysis runs under the following main assumptions,

a. **Linear Relationship:** The first assumption of the multiple linear regression analysis is that there is a linear relationship between the explanatory variable and the DV variable in the analysis.

b. **Linearity of residuals:** The second assumption of the multiple linear regression model of the study require that the error term (residuals) of the observed and the predicted values of the regression analysis are normally distributed.

c. **Multicollinearity:** The third assumption of the multiple regression analysis requires that the explanatory variables under analysis of the study are not highly correlated with each other.

The regression models used in the study are given as follow,

$$ROE = \alpha_1 + \beta_1(CR) + \beta_2(TETA) + \beta_3(PLLTL) + \beta_4(LD) + \beta_5(LIQD) + \varepsilon$$

$$ROA = \alpha_2 + \beta_1(CR) + \beta_2(TETA) + \beta_3(PLLTL) + \beta_4(LD) + \beta_5(LIQD) + \varepsilon$$

$$NIM = \alpha_3 + \beta_1(CR) + \beta_2(TETA) + \beta_3(PLLTL) + \beta_4(LD) + \beta_5(LIQD) + \varepsilon$$

Where:

ROA_{bt} = the Return on Assets,

ROE_{bt} = Return on Equity,

NIM_{bt} = Net Interest Margin,

CR_{bt} = Cost to Revenue,

α_1, α_2, α_3 represents alpha (constant) for each model respectively,

β represents the coefficients of the regression equation,

CR represents the Cost to Revenue,

TETA = Total Equity to Total Asset,

PLLTL represents Provision of Loan Losses over Total Loans,

LD represents Loans to Deposits,

LIQD represents Liquid Assets to Deposits,

E represents error term

Chapter4

Analysis

To analyze the factors, determine the profitability of banking sector in Pakistan the study collected data for 10 different banks which included 5 banks each from IB sector and CB sector of Pakistan. Data for all the variables under analysis was collected for a period of 7 years from 2010 to 2016. The data collected was further analyzed using different statistical analysis tools and analysis results are presented in the following section of this chapter.

4.1   DESCRIPTIVE STATISTICS

The data was analyzed using the descriptive statistics and results are presented in table 1 of the section. In the table it is presented that there are in total 8 variables in the analysis each variable has 70 observations in the data set of the study. In the table third column presents the mean values for each variable and it can be observed that the mean return on equity for the sampled banks is .1160 with a standard deviation of .133.

Table 4. 1   Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Return on Equity	70	.1160	.13393	-0.0711	.287	1.823	.566
Return on Assets	70	.0190	.11018	0.038	.287	2.249	.566
Net Interest Margin	70	0.118	0.3230	0.092	.287	1.158	.566
Capital Adequacy	70	.1593	.04664	0.081	.287	1.014	.566
Assets Quality	70	.7199	.29879	-0.089	.287	1.250	.566
Management Quality	70	.6076	.16612	0.078	.287	.014	.566
Earning Quality	70	1.4289	.58542	0.039	.287	-.824	.566
Liquidity Quality	70	.6854	.13569	-0.027	.287	.000	.566
Valid N (listwise)	70						

The skewness value for ROE is 0.071 which is not much deviates from zero and therefore suggest that the data on ROE does not comes with the problem of skewness. The Kurtosis value for ROE is 1.823 which is less than 3 and hence validates the normality of the data set of the study. The mean return on assets for the sampled banks is .0190 with a standard deviation of .110. The skewness value for ROA is 0.038 which is not much deviates from zero and therefore suggest that the data on ROA does not comes with the problem of skewness. The Kurtosis value for ROA is 2.249 which is less than 3 and hence validates the normality of the data set of the study. The mean Net Interest Margin for the sampled banks is 0.1182 with a standard deviation of 0.3237. The skewness value for NIM is 0.092 which is not much deviates from zero and therefore suggest that the data on NIM does not comes with the problem of skewness. The Kurtosis value for NIM is 1.158 which is less than 3 and hence validates the normality of the data set of the study. The mean Capital Adequacy for the sampled banks is .1593 with a standard deviation of .046. The skewness value for TETA is 1.014 which is not much deviates from zero and therefore suggest that the data on TETA does not comes with the problem of skewness. The Kurtosis value for TETA is 1.014 which is less than 3 and hence validates the normality of the data set of the study. The mean Asset Quality for the sampled banks is .7199 having a standard

deviation of .2987. The skewness value for PLLTL is -.089 which is not much deviates from zero and therefore suggest that the data on PLLTL does not comes with the problem of skewness. The Kurtosis value for PLLTL is 1.250 which is less than 3 and hence validates the normality of the data set of the study.

The mean Management Quality for the sampled banks is .6076 having a standard deviation of .166. The skewness value for TLD is .014 which is not much deviates from zero and therefore suggest that the data on TLD does not comes with the problem of skewness. The Kurtosis value for TLD is 1.250 which is less than 3 and hence validates the normality of the data set of the study. The mean Earning Quality for the sampled banks is 1.42 with a standard deviation of .58542. The skewness value for EQ is 0.039 which is not much deviates from zero and therefore suggest that the data on EQ does not comes with the problem of skewness. The Kurtosis value for EQ is -.824 which is less than 3 and hence validates the normality of the data set of the study. The mean Liquidity Quality for the sampled banks is .6854 having a standard deviation of .135. The skewness value for LIQD is -.027 which is not much deviates from zero and therefore suggest that the data on LIQD does not comes with the problem of skewness. The Kurtosis value for LIQD is 0.00 which is less than 3 and hence validates the normality of the data set of the study.

4.2 CORRELATION MATRIX

Table 4. 2   Correlation Matrix

	Return on Equity	Return on Assets	Net Interest Margin	Capital Adequacy	Assets Quality	Management Quality	Earning Quality	Liquidity Quality
Return on Equity	1							
	70							
Return on Assets	.189	1						
	.117							
	70	70						
Net Interest Margin	-.814	-.223	1					
	.000	.064						
	70	70	70					
Capital Adequacy	-.281*	-.133	.548**	1				
	.018	.272	.000					
	70	70	70	70				
Assets Quality	-.158	.044	.116	-.242*	1			
	.192	.716	.338	.044				
	70	70	70	70	70			
Management Quality	-.369**	-.002	.243*	-.126	.137	1		
	.002	.986	.043	.297	.258			
	70	70	70	70	70	70		
Earning Quality	.295*	.164	-.351**	-.245*	-.465**	-.111	1	
	.013	.174	.003	.041	.000	.360		
	70	70	70	70	70	70	70	
Liquidity Quality	.061	.068	.144	.275*	.039	-.373**	-.042	1
	.615	.578	.236	.021	.750	.001	.728	
	70	70	70	70	70	70	70	70

Table 4.5 of the section presents the Correlation matrix for the explanatory variables under analysis of the study above in the table the association between the explanatory variables is analyzed for the presence of any multi-collinearity problem in the data. However, it is observed from table 2 that the explanatory variables do not show any significant relationship between any two of the explanatory variables. The association presented between these explanatory variables is very minimum i.e. quite less than .70 and is also insignificant. Therefore, it is concluded that the data set is independent of presence of any collinearity problem between the variables under analysis.

4.3   REGRESSION ANALYSIS

In order to analyze the determinants of performance of banking firm in Pakistan a multiple regression analysis technique is used. Three different regression models are used for determining the factors effecting performance of the banks. The results of the regression analysis are presented in the following tables of the study.

Table 4. 3   Regression Model I

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.449	.149		3.018	.004
	Capital Adequacy	.988	.361	.344	2.737	.008
	Assets Quality	.064	.060	.142	1.769	.089
	Management Quality	.300	.093	.372	3.220	.002
	Earning Quality	.024	.030	.105	2.792	.041
	Liquidity Quality	.027	.118	.027	.226	.822

a. Dependent Variable: Return on Equity

F = 5.203

R = .52

R square = .28

Table 4.3 presents results for regression model I of the study using Return on Equity as the dependent variable. In the table it can be observed that the F value of the model is 5.203 which implies that the value is greater than the critical value at 1% level of significance and hence it is suggested that the model is significant at $P<.01$. The significance of the model implies the goodness of fitness of the overall model and suggest that the model is accurately predicting the relationship between the variables in the model. The R value for the model is .52 suggesting that there is a substantial correlation between the explanatory variables and the dependent variable in the model. The value for R square in the model is .28 suggesting that the explanatory variables explain almost 28% variation in the dependent variable in the model.

The beta coefficient for the relationship of Capital Adequacy and ROE is .988 and the T value is 2.737 with a P value of .008 implying the significance of the relationship at $P<.01$. This suggests that there is a significant association between the Capital Adequacy of the banks and the ROE of the banks. The beta coefficient for the relationship of Assets Quality and ROE is .064 and the T value is 1.769 with a P value of .089 implying the significance of the relationship at $P<.10$. This suggests that there is a significant association between Assets Quality of the banks and the ROE of the banks.

The beta coefficient for the relationship of Management Quality and ROE is .300 and the T value is 3.220 with a P value of .002 implying the significance of the relationship at $P<.01$. This suggests that there is a significant association between Management Quality of the banks and the ROE of the banks. The beta coefficient for the relationship of Earning Quality and ROE is .024 and the T value is 2.792 with a P value of .041 implying the significance of the relationship at $P<.01$. This suggests that there is a significant association between Earning Quality of the banks and the ROE of the banks.

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The beta coefficient for the relationship of Liquidity Quality and ROE is .027 and the T value is .226 with a P value of .822 implying the significance of the relationship at P<.01. This suggests that there is a significant association between Liquidity Quality of the banks and the ROE of the banks.

Table 4. 4   Regression Model II

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.109	.141		-.773	.442
	Capital Adequacy	.192	.342	.081	2.560	.047
	Assets Quality	.041	.057	.111	1.724	.072
	Management Quality	.023	.088	.035	.266	.791
	Earning Quality	.039	.029	.205	1.745	.094
	Liquidity Quality	.087	.112	.108	.783	.437

a. Dependent Variable: Return on Assets

F = 8.767

R = .238

R square = .057

Table 4.4 presents results for regression model II of the study using Return on Assets as the dependent variable. In the table it can be observed that the F value of the model is 8.767 which implies that the value is greater than the critical value at 1% level of significance and hence it is suggested that the model is significant at P<.01. The significance of the model implies the goodness of fitness of the overall model and suggests that the model is accurately predicting the relationship between the variables in the model. The R value for the model is .238 suggesting that there is a substantial correlation between the explanatory variables and the dependent variable in the model. The value for R square in the model is .057 suggesting that the explanatory variables explain almost 5% of the variation in the dependent variable in the model.

The beta coefficient for the relationship of Capital Adequacy and ROA is 2.109 and the T value is 2.560 with a P value of .047 implying the significance of the relationship at P<.05. This suggests that there is a significant association between Capital Adequacy of the banks and the ROA of the banks. The beta coefficient for the relationship of Assets Quality and ROA is .041 and the T value is 1.724 with a P value of .072 implying the significance of the relationship at P<.10. This suggests that there is a significant relationship between Assets Quality of the banks and the ROA of the banks. The beta coefficient for the relationship of Management Quality and ROA is .023 and the T value is .266 with a P value of .791 implying the insignificance of the relationship at P>.10. This suggests that there is an insignificant relationship between Management Quality of the banks and the ROA of the banks. The beta coefficient for the relationship of Earning Quality and ROA is .039 and the T value is 1.745 with a P value of .094 implying the significance of the relationship at P<.05. This suggest that there is a significant association between Earning Quality of the banks and the ROE of the banks.

The beta coefficient for the relationship of Liquidity Quality and ROA is .087 and the T value is .783 with a P value of .437 implying the insignificance of the relationship. This suggests that there is an insignificant relationship between Liquidity Quality of the banks and the ROA of the banks.

Table 4. 5   Regression Model III

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1106672.588	313460.160		-3.531	.001
	Capital Adequacy	4025837.235	760733.089	.580	5.292	.000
	Assets Quality	180172.482	125687.586	.166	1.733	.057
	Management Quality	618926.241	196154.120	.318	3.155	.002
	Earning Quality	-51069.360	63680.967	.092	1.802	.026
	Liquidity Quality	220093.606	247990.620	.092	.888	.378

a. Dependent Variable: Net Interest Margin

F = 10.892

R = .678

R square = .460

Table 4.5 presents results for regression model III of the study using Net Interest Margin as the dependent variable. In the table it can be observed that the F value of the model is 10.892 which implies that the value is greater than the critical value at 1% level of significance and hence it is suggested that the model is significant at $P<.01$. The significance of the model implies the goodness of fitness of the overall model and suggest that the model is accurately predicting the association between the variables in the model. The R value for the model is .678 suggesting that there is a substantial correlation between the explanatory variables and the dependent variable in the model. The value for R square in the model is .460 suggesting that the explanatory variables explain almost 46% of the variation in the dependent variable in the model.

The beta coefficient for the association of Capital Adequacy and Net Interest Margin is 4025837.235 and the T value is 5.292 with a P value of .000 implying the significance of the association at $P<.01$. This suggests that there is a significant association between Capital Adequacy of the banks and the Net Interest Margin of the banks. The beta coefficient for the association of Assets Quality and Net Interest Margin is 180172.482 and the T value is 1.433

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with a P value of .057 implying the significance of the association at P<.10. This suggest that there is a significant association between Assets Quality of the banks and the Net Interest Margin of the banks. The beta coefficient for the association of Management Quality and Net Interest Margin is 618926.241 and the T value is 3.155 with a P value of .002 implying the significance of the association at P<.01. This suggest that there is a significant association between Management Quality of the banks and the Net Interest Margin of the banks.

The beta coefficient for the association of Earning Quality and Net Interest Margin is 51069.360 and the T value is 1.802 with a P value of .026 implying the significance of the association at P<.05. This suggests that there is a significant association between Earning Quality of the banks and the Net Interest Margin of the banks.

The beta coefficient for the association of Liquidity Quality and Net Interest Margin is 220093.606 and the T value is .888 with a P value of .378 implying the insignificance of the association at P>.10. This suggests that there is an insignificant association between Liquidity Quality of the banks and the Net Interest Margin of the banks.

The results of the regression model as presented above suggest that Assets Quality, Earning Quality, Management Quality and Capital Adequacy are important determinates of performance of the banking firms in Pakistan. All these variables have significant association with the ROE, ROA and NIM as used by the study as the dependent variables in the analysis. The results of the study support the findings of previous studies used for determination of banks performance such as (al-Qaradhawi, 2009) and (Matthews & Tlemsani, 2010). These studies also presented that Management quality, Assets Quality and earning quality are important determinants of banks performance. Chukwuogor-Ndu and Wetmore (2006); Algaoud and Lewis

(2007) and Čihák and Hesse (2010) also presents similar results for performance determination of banking firms. The liquidity quality however is found to have an insignificant association with the performance of the banking firms.

4.4 INDEPENDENT SAMPLE T TEST

Table 4.5 of the study presents the independent T test results for the mean difference between the performance of IBs and CBs in Pakistan. The independent sample T test calculates the mean value for each of the variable in the model for IBs and CBs and then finds the means differences between the two means. The test runs under the Null hypothesis of Equal variance assumed and an alternate hypothesis of Equal Variance not assumed. The values in the corresponding row of Null or alternate hypothesis are used based on the significance of the F value.

Table 4. 6   Independent Sample T test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Return on Equity	Equal variances assumed	10.252	.002	-4.12	68	.000	-.11886	.02885	-.17643	-.06129
	Equal variances not assumed			-4.12	45.042	.000	-.11886	.02885	-.17696	-.06075
Return on Assets	Equal variances assumed	1.054	.308	-1.54	68	.127	-.04029	.02608	-.09232	.01175
	Equal variances not assumed			-1.54	41.287	.130	-.04029	.02608	-.09294	.01237
Net Interest Margin	Equal variances assumed	55.074	.000	2.753	68	.008	203573.83430	73946.95295	56014.98710	351132.68150
	Equal variances not assumed			2.753	34.038	.009	203573.83430	73946.95295	53301.79528	353845.87330
Capital Adequacy	Equal variances assumed	.024	.877	.689	68	.493	.00771	.01119	-.01462	.03004
	Equal variances not assumed			.689	60.291	.493	.00771	.01119	-.01467	.03010
Assets Quality	Equal variances assumed	1.490	.226	2.919	68	.005	.19800	.06782	.06266	.33334
	Equal variances not assumed			2.919	62.879	.005	.19800	.06782	.06246	.33354
Management Quality	Equal variances assumed	9.925	.002	2.452	68	.017	.09400	.03834	.01749	.17051
	Equal variances not assumed			2.452	55.253	.017	.09400	.03834	.01717	.17083

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Earning Quality	Equal variances assumed	1.604	.210	-1.22	68	.225	-.17086	.13944	-.44910	.10738
	Equal variances not assumed			-1.22	67.252	.225	-.17086	.13944	-.44915	.10744
Liquidity Quality	Equal variances assumed	2.162	.146	-2.20	68	.031	-.06971	.03156	-.13269	-.00674
	Equal variances not assumed			-2.20	66.101	.031	-.06971	.03156	-.13272	-.00670

In the table 4.6 it can be observed that the F value for the test of ROE is 10.252 which implies the acceptance of the hypothesis of equal variance not assumed. In the corresponding row the mean difference value is -.118 which implies that on average the ROE of CBs is greater than the ROE of the IBs. The P value for the mean difference is 0.000 suggesting that there exists significant mean difference between IBs and CBs. The F value for the test of ROA is 1.054 which implies the acceptance of the hypothesis of equal variance assumed. In the corresponding row the mean difference value is -.04 which implies that average ROA of CBs is greater than the ROE of the IBs. The P value for the mean difference is 0.127 suggesting that the mean difference is insignificant between IBs and CBs.

The F value for the test of NIM is 55.074 which imply the acceptance of the hypothesis of equal variance not assumed. In the corresponding row the mean difference value is 203,573.83 which imply that on average the NIM of IBs is higher than the NIM of the CBs. The P value for the mean difference is 0.008 suggesting that there exists significant mean difference between IBs and CBs. The F value for the test of Capital Adequacy Ratio is .024 which implies the acceptance of the hypothesis of equal variance assumed. In the corresponding row the mean difference value is .0071 which implies that on average the Capital Adequacy of IBs is higher than that of the IBs. The P value for the mean difference is 0.329 suggesting that the mean difference is insignificant between IBs and CBs.

The F value for the test of Assets Quality is 1.490 which implies the acceptance of the hypothesis of equal variance assumed. In the corresponding row the mean difference value is .198 which implies that on average the Asset quality of IBs is higher than that of the CBs. The P value for the mean difference is 0.005 suggesting that there exists significant mean difference between IBs and CBs. The F value for the test of Management Quality is 9.925 which imply the acceptance of the hypothesis of equal variance not assumed. In the corresponding row the mean difference value is .09 which implies that on average the Management quality of IBs is higher than that of the CBs. The P value for the mean difference is 0.017 suggesting that there exists significant mean difference between IBs and CBs.

The F value for the test of EQ is 1.604 which implies the acceptance of the hypothesis of equal variance assumed. In the corresponding row the mean difference value is -1.70 which implies that on average the EQ of CBs is greater than the EQ of the IBs. The P value for the mean difference is 0.225 suggesting that the mean difference is insignificant between IBs and CBs. The F value for the test of Earning Quality is 2.162 which imply the acceptance of the hypothesis of equal variance not assumed. In the corresponding row the mean difference value is -.06 which implies that on average the Liquidity quality of IBs is higher than that of the CBs. The P value for the mean difference is 0.031 suggesting that there exists significant mean difference between IBs and CBs.

The overall results of the Test Implies that in terms of the earning or performance the CBs has an edge over the IBs and all the performance measures i.e. ROA and ROE are higher for CBs as compared to IBs. The IBs has performed well in terms of the net interest margin and is on the higher side as compared to the CBs included in the analysis. The IBs also stands with an edge in terms of the Management Quality, Assets Quality and Capital Adequacy as compared to the CBs

in the analysis. The CBs however have a higher Liquidity and Earning quality as compared to IBs.

4.5   DISCUSSION OF THE RESULTS

The results of the study suggest that there exists significant relationship between Capital Adequacy of the banks and the ROE of the banks. The results are also similar for the association of Capital Adequacy of the banks and the ROA of the banks and NIM of the banks. The results suggest that there exists significant relationship between Assets Quality of the banks and the ROE of the banks. The results are in accordance with the results of past studies such as Alam et al. (2011) and who presents similar results for relationship of Asset quality and ROE, ROA and NIM of the banks. Ongore and Kusa (2013) presented that a higher NIM indicates high performance and greater stability. This places NIM as one of the key measure of profitability. However it is only seen in studies that discuss banking from the conventional point of view (Dietrich & Wanzenried, 2014; Sufian, 2011; Tafri et al., 2009), in the Islamic view of point interest is prohibited because interest is usually viewed as the cost of credit that reflects the opportunity cost of money. According to Lodhi (2014) IBs that imposed interest on their lending and borrowing transactions are said to be usury since interest is considered as unjustified increment or unlawful gain in the Islamic perspective.

Zimmerman (1996) pointed out that management decisions are highly focused on the portfolio of loans to evaluate the banks performance. Therefore, the performance of banks depends on the management quality. This suggests that there is a strong association between the ROE and Management Quality of the banks of the banks. Results suggest that there is a strong association between the ROE and Earning Quality of the banks of the banks however the results

for ROA is not in line with the previous studies and suggest insignificant association with management quality of the banks. However, the results suggest that there is a strong association between the Net Interest Margin and Management Quality of the banks.

Results suggest that there exist association between ROE and Liquidity Quality of the banks. The results however revealed insignificant association between the ROA and of the banks and Liquidity Quality of the banks and the Net Interest Margin of the banks. Haron (1997) demonstrated the effect of various internal and external factors on the performance of IBs. In his study he concluded that liquidity, total expenditures, profit sharing ratio, market size, money supply, bank size and interest rate are significantly correlated with the profitability and income of IBs. Lemonakis et al. (2015) conducted a comprehensive study to determine the efficiency and risk level for banking sector in MENA countries using Z-score as a proxy for insolvency risk. The study found a lower Z-score value which shows greater bankruptcy risk. The result of the study also suggested that larger bank size and low quality of assets leads to higher insolvency risk. According to Kuran (2004) Islamic and CBs are based on two distinct philosophies thereby producing two different financial outcomes. Numerous studies have been carried out to evaluate the performance of both type of banks in term of liquidity, profitability and risk but very few studies have concentrated to determine that whether two different philosophies results in different performance outcomes or not.

The results of the regression model as presented above suggest that Assets Quality, Earning Quality, Management Quality and Capital Adequacy are important determinates of performance of the banking firms in Pakistan. All these variables have significant association with the ROE, ROA and NIM as used by the study as the dependent variables in the analysis. The results of the study support the findings of previous studies used for determination of banks

performance such as (al-Qaradhawi, 2009; Matthews & Tlemsani, 2010). These studies also presented that Management quality, Assets Quality and earning quality are important determinants of banks performance. Chukwuogor-Ndu and Wetmore (2006); Algaoud and Lewis (2007) and Čihák and Hesse (2010) also presents similar results for performance determination of banking firms. The overall results of the study are in line with the results of the previous studies. The liquidity quality however is found to have an insignificant association with the performance of the banking firms.

The overall results of the Test Implies that in terms of the earning or performance the CBs has an edge over the IBs and all the performance measures i.e. ROA and ROE are higher for CBs as compared to IBs. The IBs has performed well in terms of the net interest margin and is on the higher side as compared to the CBs included in the analysis. The IBs also stands with an edge in terms of the Management Quality, Assets Quality and Capital Adequacy as compared to the CBs in the analysis. The CBs however have a higher Liquidity and Earning quality as compared to IBs. Samad and Hassan (2006) also found that IBs are less risky and have greater liquidity as compared to CBs. In contrast, Rashid and Nishat (2009) and Ali et al. (2009) found that IBs are doing poor in profit maximization, investor management and operating efficiency. Sumachdar and Hasbi (2010) and Jaffar and Manarvi (2011) concluded that IBs performed better as compared to CBs. Hasbi and Haruman (2010) used CAMEL analysis and found that IBs have superior performance than CBs. Kuppusamy et al. (2010) used profitability indicators and conformity financial indicators to compare interest based and interest free banking sectors. The study concluded that IBs are doing well and has become a standard institution.

The overall results supports studies such as Haron (1997) demonstrated the effect of various external and internal factors on the performance of IBs. In his study he concluded that

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liquidity, total expenditures, profit sharing ratio, market size, money supply, bank size and interest rate are significantly correlated with the profitability and income of IBs. Lemonakis et al. (2015) carried out a comprehensive study to determine the efficiency and risk level for banking sector in MENA countries using Z-score as a proxy for insolvency risk. The study found a lower Z-score value which shows greater bankruptcy risk. The result of the study also suggested that larger bank size and low quality of assets leads to higher insolvency risk. According to Kuran (2004) IBs and CBs are based on two distinct philosophies thereby producing two different financial outcomes. Numerous studies have been carried out to evaluate the performance of both type of banks in term of liquidity, profitability and risk but very few studies have concentrated to determine that whether two different philosophies result in different performance outcomes. Ryu et al. (2012) pointed out that IBs are more stable and profitable than CBs in Malaysia. However, Samad and Hassan (2006) revealed that the profitability and liquidity of IBs is not much different from the CBs.

Chapter 5

Conclusion and Recommendation

The results of the study are presented in the previous section of the study, this study concludes the study based on the results and also presents some recommendations in light of the findings of the study.

5.1   CONCLUSION

The last few decades have observed an unprecedented growth in Islamic Finance and banking system around the world. The IBs have presented new business techniques, product lines, risk mitigation tools and ways of business that are different from CB system. There is much debate on the comparative advantages of IBs over the CBs yet to mark a clear line between the two. Different empirical studies have been conducted across the world to compare Islamic and CBs in term of financial performance in different time span and different region. However, the number of such studies is limited due the reason that the required data for the study have been unavailable because of the recent surprise growth of IBs.

Studies conducted to compare the conventional and IBs locally in term of financial performance have also remained low because of recent growth of IBs in Asia (Harris 2012). Therefore, this study focused on to compare the financial performance of conventional and IBs locally in order to fill the research gap. This raises the need for assessment of the comparative

performance analysis of IBs & CBs in Pakistan and to find out the different performance measures of these banks in Pakistan. In Pakistan both CBs (interest based) and IBs (interest free) operates and provides different services and products. This study was concentrated on a comparative analysis of financial efficiency and performance of conventional and IBs in Pakistan.

To investigate the factors that determine the profitability of banking sector in Pakistan the study collected data for 10 different banks which included 5 banks each from IB sector and CB sector of Pakistan. Data for all the variables under analysis was collected for a period of 7 years from 2010 to 2016. The data collected was further analyzed using different statistical analysis tools.

The results of the regression model as presented above suggest that Assets Quality, Earning Quality, Management Quality and Capital Adequacy are important determinates of performance of the banking firms in Pakistan. All these variables have significant association with the ROE, ROA and NIM as used by the study as the dependent variables in the analysis. The findings of the study support the results presented by previous literature in the area. The liquidity quality however is found to have an insignificant association with the performance of the banking firms.

The overall results of the Test Implies that in terms of the earning or performance the CBs has an edge over the IBs and all the performance measures i.e. ROA and ROE are higher for CBs as compared to IBs. The IBs has performed well in terms of the net interest margin and is on the higher side as compared to the CBs included in the analysis. The IBs also stands with an edge in terms of the Management Quality, Assets Quality and Capital Adequacy as compared to the CBs

in the analysis. The CBs however have a higher Liquidity and Earning quality as compared to IBs. The study concluded that IBs are doing well and has become a standard institution.

5.2 RECOMMENDATION

Based on the results and discussion the following few recommendations are presented.

- Capital of the banks stands as an important indicator of performance of the banks and in keeping in context of the volatile economic and financial environment both at national and international level needs a strong capital base for the sustainable profitability of the banks.
- Liquidity of the banks allow the banks to capitalize on the opportunities arising from time to time and also serve the solvency requirements of the banks thus banks specifically IBs should develop new products and arrangements that can ensure liquidity for these banks.
- The management quality also plays an important role in determination of the bank's profitability and banks with better management quality will ensure higher profitability for the banks.
- The asset quality of the banks in terms of its deposit and financing mix also needs important consideration for significantly sustainable profitability of the banks.

5.3 FUTURE RESEARCH

This study analyzed determinants of financial performance of both Islamic and CBs using regression analysis and compared the performance measures of both the banks. Future studies can further probe the issue by using qualitative techniques such as in-depth interviews or questionnaires to further present comprehensive findings on the performance measures of the banking industry. Along with the performance measures of the banking sector the risk analysis in

banking industry also holds an important holding for investigation and studies can further investigate the factors determining the risk of the banking industry in Pakistan.

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