



ISSN: 2320-8090

Available online at <http://www.journalijcst.com>

International Journal of Current Science and Technology  
Vol.5, Issue, 6, pp. 442-450, June, 2017

IJCST

## RESEARCH ARTICLE

# FINANCIAL PERFORMANCE OF ISLAMIC AND CONVENTIONAL BANKING IN PAKISTAN: A COMPARATIVE STUDY

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### ARTICLE INFO

#### Article History:

Received 13<sup>th</sup> March, 2017

Received in revised form 5<sup>th</sup>

April, 2017

Accepted 14<sup>th</sup> May, 2017

Published online 28<sup>th</sup> June, 2017

#### Key words:

Conventional banks, Islamic banks,  
financial performance, ratios,  
Pakistan

### ABSTRACT

Islamic banking in Pakistan started in 1980s resulted into many changes in the banking company's ordinance 1962. Islamic banking is considering as an alternative of conventional banking. The purpose of this comparative study is to measure and analyse the financial performance of four conventional and four Islamic banks working in Pakistan during period of 2011-2015 over 5 years. Financial performance comparison of both banking systems was conducted by using twelve financial ratios under category of profitability, liquidity, risk and solvency, and efficiency. For calculating twelve financial ratios in MS Excel, financial data is taken from annual reports of Islamic and conventional banks. One-way ANOVA was used in this study to test the hypothesis and to check the mean differences significance among banks. The comparative study concluded that Islamic banks are less profitable, more liquid, less risky, more solvent and more efficient as compared to conventional banks.

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## INTRODUCTION

Banking sector is performing dynamic part in economic development. Banks perform an important role in mobilizing money and motivating investment for constructive enterprises. Banks receive deposits from the public and lend money in form of loans to the business persons to increase opportunities of investment that are essential for a strong economy. During past years, financial institutions have confronted a vibrant, aggressive and quick growing condition at global and national level. Around three decades ago, Islamic banking in Pakistan started in 1977-1978. Islamic banking started with the aim to elimination of interest from interest-based conventional banks, but thoughtful attempt has been taken in the last decades in January 2000, when state bank of Pakistan (SBP) established commission for transformation of financial system (CTFS) to introduce modes of financing as a Shariah complaint. State bank of Pakistan (SBP) initiated Islamic banking department in September 15, 2003. Due to these stable efforts, Islamic banking as per the standards of Islamic Shariah is having impact in contributing and financing to various social and monetary segments of the nation under practices of Islamic banking. The core differentiating feature between conventional and Islamic banking is Shariah-complaint function. In January 2002, the State bank of Pakistan gave approval licence to Meezan bank limited as first Islamic bank of Pakistan with the aim of providing Islamic banking services. As of 30<sup>th</sup> September 2016, there are total 22 Islamic banking institutions (IBIs), in which 6 are full-fledged Islamic banks (IBs) and 16 conventional banks have Islamic windows which are operating

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in Pakistan. Islamic banking market share of deposits and assets in complete banking sector stood at 13.3 percent and 11.8 percent respectively by the end of 30<sup>th</sup> September 2016 (Islamic Banking Bulletin, September, 2016). Effective from 1<sup>st</sup> November 2016, Burj bank (Islamic Bank) has been merged into Al Baraka bank Pakistan. Banking sector of Pakistan has shown excellent performance during past years because of greater contribution of foreign investors and private sector. This sector experienced severe changes over its 68 years life. Currently in Pakistan, more than fifty banks are actively operating to provide better quality services to fulfil expectations of customers. Interest free Islamic banks are competing for more customers besides tough competition with interest based conventional banks. Therefore, every bank is developing a liaison between borrowers and depositors besides other banking services.

### Overview of Pakistani Banking Sector

State bank (central bank) of Pakistan was established on July, 1<sup>st</sup> 1948. It supervises, controls and regulates Pakistani banking sector. State bank of Pakistan (SBP) performs functions as per SBP act, 1956. SBP regulates the credit and monetary system of Pakistan. As of 12<sup>th</sup> September 2012, Pakistani banking sector is enclosing 52 banks. There are 34 commercial level banks, 8 micro finance banks, 8 institutions of development finance, 2 specialized banks. 34 commercial banks include 17 local private banks, 7 foreign banks, 5 public sector banks and 5 Islamic banks. Currently, private banks hold more than 90 percent of the banking assets. Latif *et al.* (2016)

### Difference between Islamic and Conventional Banking

In Islamic Banking, operations and functions depend on Shariah standards, encourages risk sharing between funds user

(entrepreneur) and provider of funds (investor), profit maximization aim, but focus to Shariah limitations. In Islamic banking, traders, partners and buyer/seller relationship, if there is no risk than there is no right of profit, money uses as a medium of exchange but trades of real assets as a product, in case of loss suffer by businessman, bank shares loss based upon Islamic modes of finance used. Islamic banks not lend money in form of loans on interest basis. In conventional banking, functions and operations depend on completely man made standards, Investor is guaranteed of pre-decided interest rate, debtor-creditor relationship, purpose is profit maximization without any limitations, money is used as a commodity and as a medium of exchange, time value of money concept uses, risk free banking and depositor of bank has no risk of losing its cash since interest ensures.

### Islamic Modes of Finance

Islamic banking follows the principles of Islamic finance like prohibition of Maysir (gambling), idden commodities etc. Islamic banks use following most common modes of Islamic finance approaches: (i) Murabaha (mark-ups on sale), (ii) Mudarabah (capital trusts), (iii) Musharakah (full partnerships), (iv) Baimuajjall (deferred payments), (v) Bai Salam (prepaid purchases), (vi) Ijarah (lease base financing), (vii) Quard Hassan (compassionate loans) and (viii) Istisna (manufacturing contracts).

### Research question

To investigate and analyse whether Islamic banks are performing better in comparison of conventional banks of Pakistan?

### Objectives of study

The objectives of this study are following:

- To investigate and identify the financial performance of Conventional banks and Islamic banks in Pakistan during 2011-2015 over 5 years by using financial indicators such as financial ratios, and
- To create financial comparison of conventional and Islamic banks to classify, which banking system has better financial position.

### LITERATURE REVIEW

Previous research studies which have investigated the financial performance comparison of conventional and Islamic banks among these, Iqbal (2001), Awan (2009), Samad (2004), and Moin (2008) got great significance. This chapter describes about previous research studies associated with selected topic. Aggarwal and Yousef (2000) found that interest free Islamic banks have been developing in past three decades. Iran and Sudan have converted their banking sector in to Islamic banking. Islamic banks are operating more than 60 countries of world. In 1970s, market share of Islamic banks was 2% which has increased today about 15%. Akhter *et al.* (2011) interpreted the performance of forms of conventional banks i.e. private and public banks with comparison of Islamic banks in Pakistan. Total 9 ratios utilised under credit risk, liquidity risk and profitability risk from 2006 to 2010. The research study found that in regard of profitability, no substantial difference was detected in conventional commercial banks and Islamic banks. However, study found the dissimilarity in liquidity and credit execution. Al-Mamun *et al.* (2014) carried out research study on performance of banking system of Malaysia during

period 2003-2010 over 7 years. Researchers utilized ratios analysis which included credit risk ratio, profitability ratio and liquidity ratio. The results specified that performance of conventional banks better in financial profitability. Ansari and Rehman (2011) measured the performance of conventional and Islamic banks in Pakistan during period of 2006 to 2009. ANOVA and independent sample T-test was utilised to decide the significance of mean differentiation of ratios of banks. The study found that Islamic banks showed to be less profitable, more liquid, more solvent, less risky and operationally effective than other selected conventional banks. Awan (2009) examined the financial performance of conventional and Islamic banking in Pakistan. The study was conducted during 2006-2008. The outcomes of study concluded that the profitability of Islamic banks were much better than conventional banks. The areas in which Islamic banks performance better were financing, assets, investments, loan recovery, efficiency, deposits and quality of services. Iqbal (2001) compared the financial performance of conventional banks and Islamic banks from the time of 1990-1998. Ratio analysis and trend analysis techniques were applied to assess the performance of Islamic banks by conventional banks. The study results found that Islamic banks were competently profitable, more solvent and capitalized, yet Islamic banks were not cost operative in their operations. Jaffar and Manarvi (2011) compared the financial performance conventional and Islamic banks of Pakistan during period of 2005-2009. They used CAMEL test typical variables such as capital sufficiency, asset value, management standard, earning capability and liquidity situation. The comparative study concluded that conventional banks performed well in earning capability and management standard, and Islamic banks performed well in liquidity situation and capital sufficiency. Asset value was same for both banking types.

Kakakhel *et al.* (2013) measured financial performance comparison between Islamic and conventional banking in Pakistan from 2008 to 2010. The results showed that conventional banks are more profitable and efficient as compared to Islamic banks. Latif *et al.* (2016) measured the financial performance of Islamic conventional banks of Pakistan during 2006 to 2010. Through ratios and trend analysis performance was measured. The study found that Islamic banks were more solvent, efficient and less risky in comparison of conventional banks. However, there was very little difference in terms of profitability.

Metwally (1997) analysed the fundamental divergence between financial performance of Conventional and Islamic banks relating to leverage, credit risk, efficiency and profitability, using statistical methods on 30 banks during period 1992-1994 over 3 years. He found that there is no much distinction among profitability and efficiency between selected banks. Moin (2008) assessed the performance of Islamic and conventional banking of Pakistan in terms of profitability, efficiency, liquidity and risk during period of 2003-2007. Total 12 financial ratios were used. The comparative study found that Meezan bank limited was less profitable, less risky, more solvent and less effective in comparison with other 5 conventional banks, but in terms of liquidity there is no much substantial difference. Mughal *et al.* (2015) in his research paper investigated the variation between the execution of conventional and Islamic banks of Pakistan. The comparative study was to assessed and observed the performance of three

conventional banks and three Islamic banks for five years as 2010-2014. Three financial performance indicators such as earnings per share (EPS), Return on assets (ROA) and return on equity (ROE) were utilised. The findings exposed that conventional banks are more beneficial than Islamic banks regarding EPS, ROA and ROE. Rosly and Bakar (2003) analysed the performance of interest free Islamic banking system and contrasted with traditional bank's financial performance. Financial ratios were used as financial indicators for financial performance comparison. The results of study reveal that traditional banks shows efficient financial performance. Saifullah (2010) analysed comparative study on financial performance of conventional and Islamic of Bangladesh during period 2004-2008. Financial ratios analysis technique was used to assess efficiency, liquidity, business progress, profitability, solvency, productivity, and allegiance to community & economy of selected conventional and Islamic banks. Results showed that conventional commercial banks were performing better in productivity, efficiency, and allegiance to community & economy. Samad (2004) in his research study observed financial performance of Islamic conventional banks of Bahrain during 1991-2001. T-test applied to selected ratios of banks. Study found no major change about liquidity and profitability of conventional and Islamic banks. Samad and Hassan (1999) assessed interbank financial performance of Malaysian Islamic bank named Bank Islam Malaysia Berhad (BIMB) in risk, solvency, profitability, community involvement and liquidity during 1984-97. The study found that BIMB was more solvent, more liquid and less risky. Siraj and Pillai (2012) analysed the performance of six Islamic banks and six conventional banks functioning in GCC region during period 2005-2010. A study used performance indicators as net profit ratio (NPR), return on assets (ROA), operating expense ratio (OER), return on equity (ROE), return on capital employed (ROCE), deposits, profits, total equity, operating expense, assets and operating income. Results revealed that Islamic banks are more equity financed than conventional banks. Conventional banks showed development in income, however couldn't accomplish enhanced efficiency by higher arrangements towards credit losses. Usman and Khan (2012) analysed the performance of conventional and Islamic banks of Pakistan from 2007 to 2009. T-test was used in study. The results revealed that Islamic banks had high development rate and profitability and liquidity over conventional banks. These above research studies were conducted in different countries to examine the financial performance of conventional and Islamic banks. All research studies have different results because of changes in selected time periods, financial indicators, analytical tools, methods and cultural perspective. Mostly research papers are showing Islamic banks are more liquid, more solvent, less risky and conventional banks are beneficial, but there is variation in terms of profitability of both banking systems. This research study will eliminate the gap of financial performance comparison of Islamic and conventional banks under current economic environment of Pakistan.

## RESEARCH METHODOLOGY

### Population

The population of this research consists on conventional and Islamic banks of Pakistan.

### Sample selection

These samples are selected through simple random sampling method. Meezan bank limited, Dubai Islamic bank, Al-baraka bank limited and Bank Islami are selected as Islamic banks sample. Allied bank limited, JS bank limited, Bank Alfalah and Soneri bank are Selected as conventional banks sample.

### Data Collection

Financial statements are downloaded from the official websites of selected Islamic and conventional banks of Pakistan. The audited balance sheet and income statements of both conventional and Islamic banks are utilized for ratio analysis for the period of 2011-15. Ratios have been calculated with the help of ratios formulas in MS Excel. The study consists of balanced panel and secondary data. Other sources utilised for collection of data are selected banks official websites, state bank of Pakistan (<http://www.spb.org.pk>) and Pakistan stock exchange (<http://www.psx.com.pk>).

### Variables formulation

#### Dependent variable (Y)

Dependent variable is effect variable and it is a variable predicted to. In this study, financial performance of Islamic and conventional banks as the dependent variable because financial performance of both banking systems is the observed outcome of the independent variable being operated.

#### Independent variable (X)

Independent variable is cause variable and it is a variable predicted from. In this study, profitability ratios, liquidity ratios, risk and solvency ratios and efficiency ratios are used as independent variables. These ratios are expressing the value being changed or manipulated.

### Hypothesis Development

- H<sub>1</sub>: Islamic banks profitability is higher than the conventional banks.
- H<sub>2</sub>: Islamic banks liquidity is less than the conventional banks.
- H<sub>3</sub>: Islamic banks are less solvent and more risky than the conventional banks.
- H<sub>4</sub>: Islamic banks operational efficiency is less than conventional banks

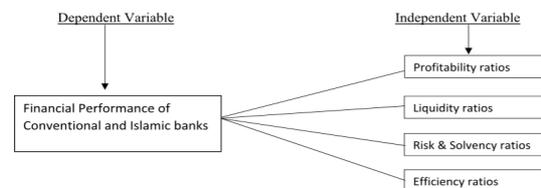


Figure Conceptual Framework of Study

### Data Analysis

Secondary and balanced panel data analysis is used to compare the financial performances of both banking systems. Through financial ratios, financial performance of both banking systems is measured. One-way ANOVA is utilised to test the hypothesis and to determine the significance of mean differences of these ratios among banks. P value is the decision criterion. If P value is greater than 0.05 then I will reject research hypothesis and accept null hypothesis.

### Theoretical Framework

Using financial ratios is a common way to measure financial performance of banks. In literature review the use of accounting ratios is relatively extensive and common. The ratios analysis technique includes process of analysis and interpretation of bank financial performance. Ratios are indicators of financial performance of all banks. This study uses twelve financial ratios to compare the performances of

conventional and Islamic banks for period of 2011-2015. The study assesses interbank financial performance of both banking systems in term of risk & solvency, profitability, efficiency and liquidity. Following financial ratios are grouped in four wide categories:

#### **Profitability Ratios**

Profitability ratios measure the effectiveness and overall performance of the bank. These ratios designate the firm's overall efficiency of operation (Van Horne & Wachowicz, 2008). Higher profitability ratios express the better performance of banks. Following profitability ratios are used in this study:

#### **Return on Assets (ROA)**

ROA shows profitability on assets of bank after all taxes. It determines that how much bank earnings after all expenses and taxes for every dollar the bank/firm invested in assets. Higher the return on assets ratio, higher will be the efficient use of assets and well managerial accomplishment.

Return on Assets (ROA) = Net profit after tax / total assets

#### **Return on Equity (ROE)**

ROE shows the profitability regarding shareholders of bank after less all expenses and taxes for every dollar invested in the bank/firm (Van Horne & Wachowicz, 2008). Higher return on equity ratio indicates that the bank/firm has better management efficiency.

Return on equity (ROE) = Net profit after tax / total shareholder's equity

#### **Profit Expense Ratio (PER)**

PER indicates the operating profit of bank concerning operating expenses. This ratio measures the efficiency of bank in controlling the operating expenses. (Samad and Hassan, 2000) stated that higher PER ratio is better for bank and bank is controlling cost effectively along with generating higher profits.

Profit expense ratio (PER) = profit before tax / operating expenses

#### **Liquidity Ratios**

Liquidity ratios measure the short-term solvency and the bank capacity to meet its short-term current commitments and main cash position. Short term period means not beyond one year. Due to excess withdrawal from savings and current accounts, bank face liquidity problems. Higher liquidity ratios mean bank has bigger edge of well-being and capacity to cover its short-term commitments/obligations. Following liquidity ratios are used in this study:

#### **Current Ratio (CR)**

This ratio indicates a bank's capability to cover its current liabilities through its current assets. Higher current ratio (CR) means higher the liquidity of bank and bank has greater ability to pay its bills.

Current ratio (CR) = Current assets / Current liabilities

#### **Loan to Deposit Ratio (LDR)**

In this study, loan denotes to 'advances' for interest-based conventional banks and 'financing' for interest-free Islamic

banks. Because Islamic banks follow Shariah principles and can't lend loans and earn Riba (Interest). Therefore, Islamic banks provide financing through different Islamic modes of financing, this is the only way that Islamic banks can use or invest their deposits. LDR also measure the liquidity of bank. If a bank has low loan to deposit ratio (LDR) than bank is less risk, unnecessary liquidity and less profits.

Loan to deposit ratio (LDR) = Loan/deposits

#### **Loan to Asset Ratio (LAR)**

This ratio measures the liquidity position of bank regarding bank total assets. If LAR is less than higher liquidity of bank.

Loan to asset ratio (LAR) = Loan/total assets.

#### **Risk and Solvency Ratios**

These ratios also called debt management, long term solvency, gearing and leverage ratios. These ratios specify the mix of owner's equity and debt in financing the assets of bank. High risk and solvency ratios are not better for the bank. Higher debt levels can cause to higher probability of financial suffering and insolvency. The bank is solvent, if assets amount is greater than all forms of liabilities amount. Following solvency & risk ratios are used in this study:

#### **Debt to Equity Ratio (DTER)**

DTER assess the debt money which is used by the bank. It shows the dependent level on outsiders for taking debt. Creditors would like low debt to equity ratio. Shareholder's equity provides protection against those loan losses in which creditors default in paying loans or decrease in bank asset value. Low debt to equity ratio is favourable for the bank. High debt to equity ratio indicates high bank's financial leverage and more aggressive capital structure of bank.

Debt to equity ratio (DTER) = Total debts/shareholder's equity

#### **Debt to Asset Ratio (DTAR)**

DTAR has similar purpose like DTER. This ratio shows debt financing using debt to finance bank total assets. It provides solvency information of bank and the capability of the bank to get further financing for productive opportunities of investment. Higher DTAR ratio threatens to solvency of bank and higher ratio means bank financed its assets through debt.

Debt to asset ratio (DTAR) = Total debts / total assets

#### **Equity Multiplier (EM)**

Equity multiplier (EM) measures that how much times the total assets of bank are of total shareholder's equity. It specifies assets amount per dollar of equity. Higher equity multiplier is not good sign for bank and higher value of EM shows that bank has utilised debt to convert into bank assets along with shareholder's equity.

Equity multiplier (EM) = Total assets/shareholder's equity

#### **Efficiency Ratios**

These ratios also called assets management ratios, turnover ratios and activity ratios. Efficiency ratios quantity how efficiently and effectively the firm is using, controlling and managing its assets (Van Horne & Wachowicz, 2008). These ratios show the overall efficiency of the bank in using its assets to quality of receivables, generate sales and how effective the firm is in its collection. Bank/firm is working well if these ratios have higher values and higher values indication of bank

management is well. Following efficiency ratios are used in study:

**Income to Expense Ratio (IER)**

This ratio quantifies the income of a bank obtained per dollar of the operating expenses. In other words, it determines the bank managerial effectiveness to generating total income by controlling its total operating expenses. In this study, total income includes all other income plus net spread earned before provisions. Higher income to expense ratio is favourable for the bank as it specifies that bank is generating effectively more total income as compared to its total operating expenses.

Income to expense ratio (IER) = Total income / total operating expenses

**Asset utilization (AU)**

Assets utilization ratio measures that how efficiently the bank is utilizing its total assets. If asset utilization ratio is high than bank utilizing its assets effectively and generating total revenue. In this study, total revenue of bank includes all other income plus net spread before provisions.

Asset utilization (AU) = Total revenue / total assets

**Operating Efficiency (OE)**

Operating efficiency (OE) ratio shows bank efficiency in its operations. This ratio specifies the operating expenses amount per dollar of operating revenue of bank. Lower operating efficiency ratio is better for bank because lower ratio shows that bank effectively manage its operating expenses over its operating revenue.

Operating efficiency (OE) = Total operating expenses / total operating revenue

**DATA FINDINGS, RESULTS AND DISCUSSION**

**Profitability Ratios**

**Return on Assets (ROA)**

Return on Assets

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	3.40%	1.30%	1.60%	2.50%	1.40%	2.04%	0.008961
Conventional Banks	4.00%	4.20%	3.90%	3.80%	4.30%	4.04%	0.001855

One-way ANOVA, Return on Assets

Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	0.00013	4	0.0000326	0.134933775	0.9624415	5.192168
Within Groups	0.001208	5	0.0002416			
Total	0.001338	9				

**Return on Equity (ROE)**

Return on Equity

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	42.90%	22.50%	26.80%	35.20%	27.00%	30.88%	0.081405
Conventional Banks	51.10%	57.90%	50.80%	52.80%	61.70%	54.86%	0.047669

One-way ANOVA, Return on Equity

Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	0.008844	4	0.0022109	0.064831	0.989883	5.192168
Within Groups	0.170513	5	0.0341025			
Total	0.179356	9				

**Profit Expense Ratio (PER)**

Profit Expense Ratio

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	1.38	0.63	0.84	0.92	0.56	0.866	0.322924
Conventional Banks	2.03	2.21	1.79	2.15	3.13	2.262	0.511195

One-way ANOVA, Profit Expense Ratio

Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	0.36484	4	0.09121	0.076395403	0.986314	5.192168
Within Groups	5.9696	5	1.19392			
Total	6.33444	9				

Results of all profitability ratios shows greater financial performances of conventional banks. The results reveal that conventional banks are more profitable than Islamic banks. The results of these profitability ratios are consistent with Samad (2004), Moin (2008), Metwally (1997) and Mughal *et al.* (2015). However, ANOVA of all these profitability ratios also shows no statistically significance difference at 5% significance level among means of both banking systems. It is concluded from all these profitability ratios that conventional banks show more effectiveness and performance as compared to Islamic banks.

**Liquidity Ratios**

**Current Ratio (CR)**

Current Ratio

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	5.85	4.58	4.39	3.93	4.79	4.708	0.713036
Conventional Banks	4.3	4.2	4.1	4.2	4	4.16	0.114018

One-way ANOVA, Current Ratio

Source of Variation	Sum of Squares	Df	Mean Square	F	P-value	F crit
Between Groups	1.17244	4	0.29311	0.880739	0.536002	5.192168
Within Groups	1.664	5	0.3328			
Total	2.83644	9				

**Loan to Deposit Ratio (LDR)**

Loan to Deposit Ratio

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	183.10%	161.40%	178.50%	203.20%	208.20%	186.88%	0.190698
Conventional Banks	230.20%	208.70%	212.80%	225.00%	216.70%	218.68%	0.08814

One-way ANOVA, Loan to Deposit Ratio

Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	0.120364	4	0.0300909	0.48693298	0.747281	5.192168
Within Groups	0.308984	5	0.0617968			
Total	0.429348	9				

**Loan to Asset Ratio (LAR)**

Loan to Asset Ratio

	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	166.80%	149.60%	169.30%	188.20%	144.60%	163.70%	0.173554
Conventional Banks	181.60%	166.50%	173.40%	167.30%	153.40%	168.44%	0.103568

One-way ANOVA, Loan to Asset Ratio

Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	0.117221	4	0.0293052	2.829474	0.142088	5.192168
Within Groups	0.051786	5	0.0103571			
Total	0.169006	9				

Results of liquidity ratios (CR, LDR, LAR) reveal greater financial performance of Islamic banks in terms of liquidity. The results indicate that Islamic banks having more liquid assets as compared to conventional banks. Therefore, Islamic banks liquidity is higher. The results of these liquidity ratios are consistent with Metwally (1997), Iqbal (2001), Moin (2008), Ansari and Rehman (2011), and Latif *et al.* (2016).

However, ANOVA of all these liquidity ratios shows no statistically significance difference at 5% significance level among means of both banking systems. Overall results of liquidity ratios (CR, LDR, LAR) support the hypothesis that Islamic banks are more liquid as compared to conventional banks. Islamic banks have high liquidity due to following reasons firstly Islamic banks bound by Shariah and are permitted to invest only in Islamic Shariah approved projects. Secondly, they have less investment opportunities.

**Risk and Solvency Ratios**

**Debt to Equity Ratio (DTER)**

Debt to Equity Ratio							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	41.24	48.7	44.2	55.7	53.1	48.588	6.004142
Conventional Banks	48.1	51.9	54.7	54.5	58.1	53.46	3.718602

One-way ANOVA, Debt to Equity Ratio						
Source of Variation	Sum of squares	df	Mean square	F	P-value	F crit
Between Groups	161.857	4	40.46426	2.085898419	0.220307	5.192168
Within Groups	96.9948	5	19.39896			
Total	258.8518	9				

**Debt to Asset Ratio (DTAR)**

Debt to Asset Ratio							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	362.20%	367.60%	287.70%	374.20%	376.30%	353.60%	0.372573
Conventional Banks	363.80%	337.40%	370.10%	369.00%	370.60%	362.18%	0.141139

One-way ANOVA, Debt to Asset Ratio						
Source of Variation	Sum of squares	df	Mean square	F	P-value	F crit
Between Groups	0.265132	4	0.0662831	0.853736	0.548245	5.192168
Within Groups	0.388195	5	0.0776389			
Total	0.653327	9				

**Equity Multiplier (EM)**

Equity Multiplier							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	45.3	47.8	52.7	56.8	58.2	52.16	5.57611
Conventional Banks	52.3	56.3	58.9	58.7	62.6	57.76	3.793152

One-way ANOVA, Equity Multiplier						
Source of Variation	Sum of squares	Df	Mean square	F	P-value	F crit
Between Groups	168.994	4	42.2485	2.312958502	0.19122	5.192168
Within Groups	91.33	5	18.266			
Total	260.324	9				

Results of all risk and solvency ratios shows greater financial performances of Islamic banks. The results reveal that Islamic banks are less risky and more solvent. All risk and solvency ratios indicator reveal higher percentage of risk for conventional banks as compared to Islamic banks. The results of these risk and solvency ratios are consistent with Iqbal (2001), Moin (2008), Latif *et.al*, (2016), and Samad and Hassan (2000). ANOVA of all these risk and solvency ratios also shows no statistically significance difference at 5% significance level among means of both banking systems. It is analysed from these results that the Islamic banks are more solvent and less risky than conventional banks. It is concluded

from all these risk and solvency ratios that Islamic banks have more ability to grip financial shocks and have higher financial strength of paying their debts.

**Efficiency Ratios**

**Income to Expense Ratio (IER)**

Income to Expense Ratio							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	8.8	10.7	13.6	15.3	16.1	12.9	3.08788
Conventional Banks	9.8	10	9.2	10.3	11.1	10.08	0.697854

One-way ANOVA, Income to Expense Ratio						
Source of Variation	Sum of Squares	df	Mean Square	F	P-value	F crit
Between Groups	24.544	4	6.136	0.866055	0.54262	5.192168
Within Groups	35.425	5	7.085			
Total	59.969	9				

**Asset Utilization (AU)**

Asset Utilization							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	25.10%	27.60%	30.70%	32.30%	33.90%	29.92%	0.035612
Conventional Banks	30.60%	28.80%	24.40%	25.40%	24.80%	24.80%	0.025882

One-way ANOVA, Asset Utilization						
Source of Variation	Sum of Squares	Df	Mean Square	F	P-value	F crit
Between Groups	0.000432	4	0.0001081	0.053567889	0.992913	5.192168
Within Groups	0.01009	5	0.002018			
Total	0.010522	9				

**Operating Efficiency (OE)**

Operating Efficiency							
	2011	2012	2013	2014	2015	Mean	S.D
Islamic Banks	588.80%	333.50%	273.60%	118.40%	152.60%	293.38%	1.868896
Conventional Banks	457.10%	533%	581.80%	544.30%	446.00%	512.44%	0.585777

One-way ANOVA, Operating Efficiency						
Source of Variation	Sum of squares	df	Mean square	F	P-value	F crit
Between Groups	0.250737	4	0.0626842	2.659411710	1	3.47805
Within Groups	13453251	10	1345325.1			
Total	13453251	14				

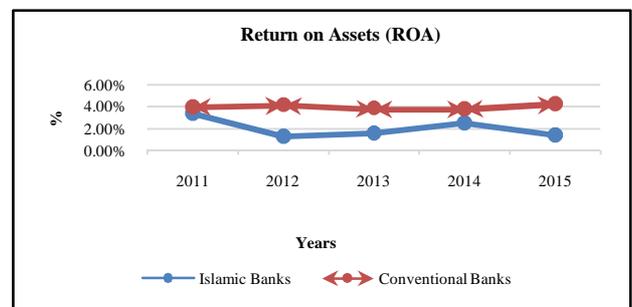


Figure 1

Overall results of efficiency ratios reveal greater financial performance of Islamic banks as efficiency of Islamic banks is high. The results indicate that Islamic banks are using, controlling and managing its assets efficiently and effectively. The results of these efficiency ratios are consistent with Iqbal

(2001), Awan (2009), Ansari and Rehman (2011), and Latif *et.al*, (2016). ANOVA of all these efficiency ratios shows no statistically significance difference at 5% significance level among means of both banking systems. It is analysed from these results of efficiency ratios that the Islamic banks are more operationally efficient.

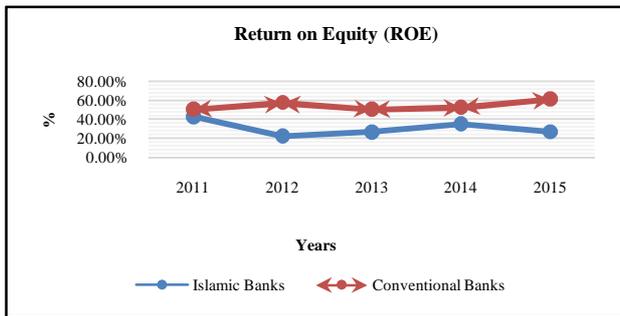


Figure 2

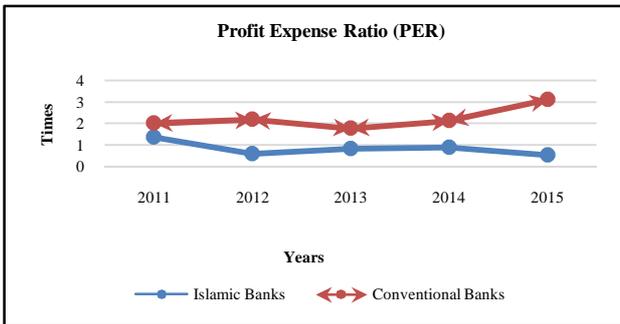


Figure 3

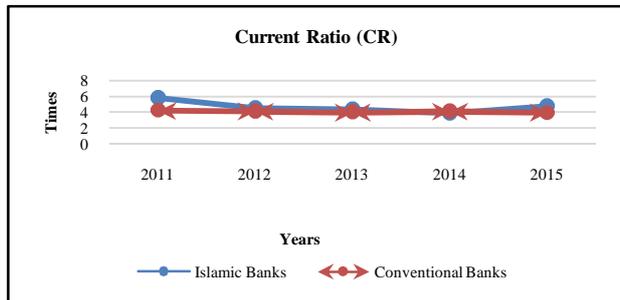


Figure 4

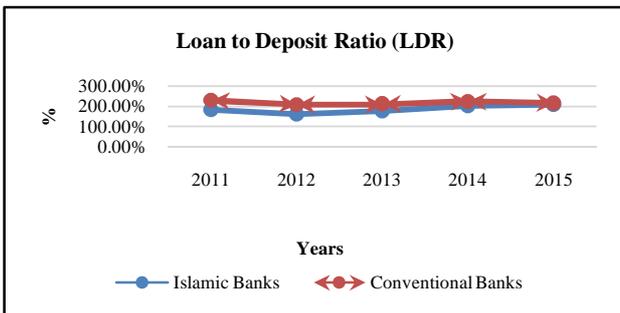


Figure 5

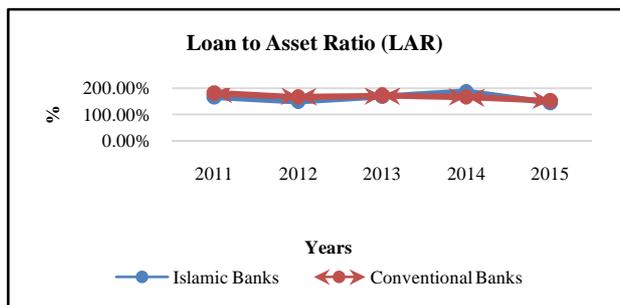


Figure 6

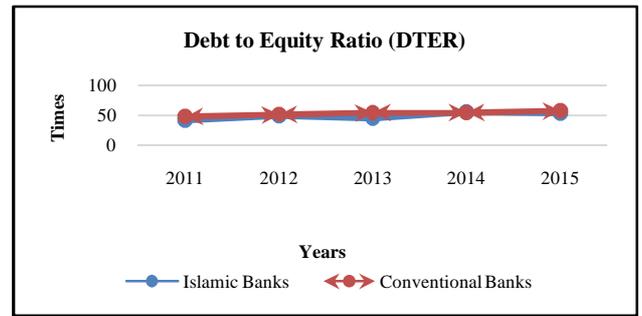


Figure 7

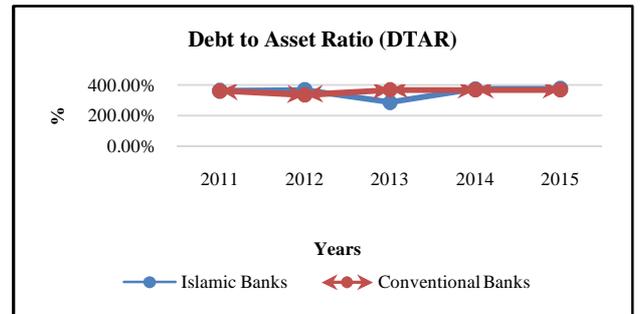


Figure 8

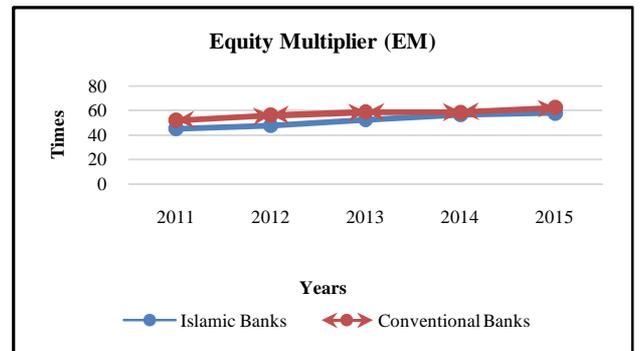


Figure 9

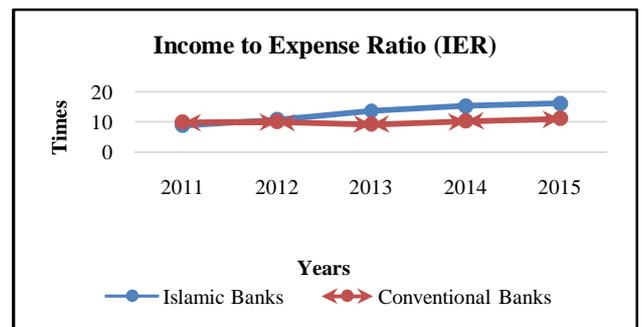


Figure 10

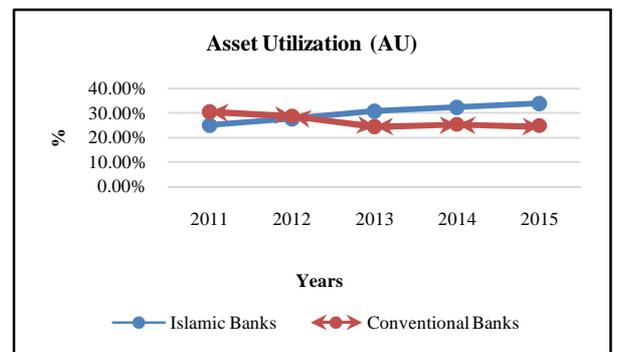


Figure 11

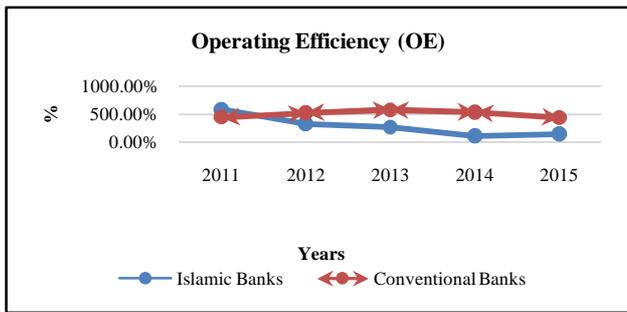


Figure 12

## CONCLUSION

A comparative study is conducted to examine the financial performance of Islamic and Conventional banks in Pakistan by using four forms of performance measures during 2011-2015. Time is the major limitation during the whole study because topic is too board to cover from every phase in this short period. Profitability measures analysis which consisted on return on assets (ROA), return on equity (ROE) and profit expense ratio (PER) show that conventional banks are more profitable as compared to Islamic banks. Return on assets of conventional banks is higher but this ratio of Islamic and conventional banks is showing the fluctuating trend overall. Return on equity of conventional banks are consistently higher than the ROE of Islamic banks. These profitability ratio measures do not show statistically significant difference at significance level among the performance of Islamic and conventional banks and resulting in rejecting research hypothesis that Islamic banks profitability is higher than the conventional banks. Analysis of liquidity measures which consisted on current ratio (CR), loan to deposit ratio (LDR) and loan to asset ratio (LAR) show that liquidity position of Islamic banks is higher as compared to conventional banks. Current ratio of Islamic banks is higher and this ratio of both banking systems indicates increasing decreasing trend. Loan to deposit ratio shows fluctuating trend and mean of LDR of Islamic banks is low as compared to mean of LDR of conventional banks which indicates less risk, unnecessary liquidity and less profits of Islamic banks. Loan to asset ratio of both banking systems shows increasing decreasing trend and mean of LAR of Islamic banks is low as compared to mean of LAR of conventional banks. Low LDR and LAR indicates higher liquidity. These liquidity ratio measures do not show statistically significant difference at significance level among the performance of Islamic and conventional banks and resulting in accepting null hypothesis that Islamic banks liquidity is higher than the conventional banks.

Examination of risk and solvency which includes debt to equity ratio (DTER), debt to asset ratio (DTAR) and equity multiplier (EM) ratio. Results of all these risk and solvency ratios reveal that Islamic banks are less risky and more solvent. Islamic banks profitability is less but risk and solvency measures proves that Islamic banks are less risky and more solvent; it is exactly the fundamental rule of finance that is "higher the expected return higher the risk". These risk and solvency ratio measures do not show statistically significant difference at significance level among the performance of Islamic and conventional banks, therefore research hypothesis rejected. In terms of operational efficiency measures which consisted on income to expense ratio (IER), asset utilization

(AU) ratio and operating efficiency (OE) ratio. Results of all these efficiency ratios greater financial performance of Islamic banks as efficiency of Islamic banks is high. Islamic banks are using, controlling and managing its assets efficiently and effectively. All efficiency ratio measures do not show statistically significant difference at significance level among the financial performance of Islamic and conventional banks, therefore research hypothesis rejected as Islamic banks operational efficiency is less than conventional banks. It is concluded from all the research study that Islamic banks are less profitable, more liquid, less risky, more solvent and more efficient as compared to conventional banks.

## Recommendations for Future Research

Sample size for the same study should be increased. As a sample, more banks should be included in study to take a broad view of the results of study on the entire industry. Islamic banking in Pakistan is not much develop as conventional banking in Pakistan. There is robust need to conduct financial performance assessment studies from time to time to counteractive actions may be taken consequently. This research study provides new paths for future research.

Results of this study, create a lot of questions in researcher's mind, i.e.

1. Why Islamic banks are less profitable than conventional banks
2. Why Islamic banks liquidity is higher as compared to conventional banks
3. Why Islamic banks are more solvent and less risky than conventional banks
4. Why Islamic banks are more efficient as compared to conventional banks.

Finally, for further research studies, when there will be longer time periods and more banks to examine, alike research study would create better understanding on the query of financial performance comparison and make available solid indication one or another way.

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