

Analyzing Performance of Banks in Pakistan: Conventional *versus* Islamic Banks

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Abstract

This study analyzes the performance of conventional *versus* Islamic banks in Pakistan. For the purpose, we have first constructed the financial performance index (FPI) based on CAMELS' ratios and then ranked the banks on the basis of the constructed FPI. We have used annual data covering the period 2006-2012. The results reveal that conventional banks were on top of the list and Islamic banks stood mostly after 12th rank in terms of performance over the period. Yet, the progress ratio depicts that Islamic banks had better performance in 2012 as compared to 2006.

Keywords: Islamic Banks, Conventional Banks, Pakistan, Financial Performance Index, CAMELS Ratios, Ranking.

KAUJIE Classification: J0, L3
JEL Classification: G20, G21, G29

1. Introduction

The banking sector is a major source of finance for both consumers and firms. Although, the Islamic banking system has been attracting the attention of researchers, customers, and policy makers, conventional banking system is still dominating around the globe. Islamic banks have to compete with conventional counterparts in standardization, innovation, intra and inter industry business, and markets to operate in the dual system. Islamic banking became specifically popular during the recent financial crisis to overcome the deficiencies of conventional system. In fact, the financial crisis evidenced the problems created by the absence of

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real assets on the back of credit and advances, which is the pre-requisite in Islamic financial system. While locating the reasons of financial crisis, Ayub (2012) emphasized that financing of real assets and business could save from such crisis. At the same time, many countries (e.g., the UK) have adopted the Islamic banking model owing to the inherent characteristics viewed through real and transparent economic transactions that are free from interest, uncertainty, and gambling, as well as asset backed (Belouafi and Chachi, 2014). Since Islamic banking system is nascent in the financial markets, it has to come across a number of challenges in showing noticeable performance in competitive environment. As such, it has to take its time to become a full-fledged system of financial intermediation even at national levels. Thus, Islamic banking system has, at times, to adopt certain practices that resemble conventional products in order to compete with the conventional banks (Badreldin, 2009).

Principally, the Islamic banks ought to observe profit and loss sharing system mechanism such as *mudārabah* and *mushārah*. However, the competition as indicated above has forced them to use mostly the fixed return instruments like *murābahah*, *ijārah*, and Diminishing *mushārah*. The deposits in Islamic banks are raised mainly through *mudārabah*, and to some extent on *qard* or *wakālah al-istithmār* bases. Saving and investment deposits are raised on the basis of *mudārabah/mushārah*, whereas, current deposits are obtained as *qard* (loan). The equity of shareholders is contributed through ordinary shares. These funds are utilized in different investments such as *murābahah*, *ijārah*, Diminishing *mushārah*, *mudārabah*, and *mushārah*. The profit of Islamic banking industry remained Rs.15 billion in 2014. Islamic banking industry assets grew by 24.2% to reach Rs.1259 billion in December 2014 while market share of Islamic banking assets in overall banking industry was 10.4% in December 2014 (Islamic Banking Bulletin, December 2014).

In Pakistan, State Bank of Pakistan (SBP) plays a vital role in promoting the Islamic banking in Pakistan in line with the Sharī'ah and regulatory framework announced by it. Three types of Islamic Banking Institutions (IBIs) viz. full fledged Islamic banks, Islamic bank subsidiaries of conventional banks, and standalone Islamic banking branches of conventional bank can be established to offer Islamic banking services in Pakistan. The SBP has provided level playing field and allowed Islamic banks to operate parallel with the conventional banks, with a primary objective to provide diversified banking opportunities to build a sound

financial system rendering the economic development opportunities through Sharī'ah compliant financial operations. The SBP's Strategic Plan for Islamic Banking 2014-2018 focuses on strengthening legal, regulatory, and reporting structure; improving Sharī'ah governance and compliance through standardization and harmonization of products and Sharī'ah practices; enhancing coordination and collaboration amongst internal, external stakeholders to increase awareness about Islamic finance and capacity building of the stakeholders; and market development by increasing product diversification and financial inclusion (SBP, 2014).

This paper examines and compares the performance of all Islamic banks and private sector conventional banks in Pakistan. Specifically, using CAMELS denoting capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to risk, the study has constructed the financial performance index (FPI) as in Teker, Teker, & Kent's (2011) in order to examine the performance of Islamic *versus* conventional banks. The study then ranked the banks based on the constructed FPI and calculated the banks' performance through progress ratio to analyze the relative performance of banks in 2012 with respect to 2006. We preferred measuring financial performance of banks based on CAMELS because simple ratio based performance measures (e.g., returns on assets (ROA), returns on equity (ROE), etc) are limited in considering different financial aspects of financial institutions. Further, we constructed FPI as any performance measurement based on different ratios and regression analysis would not provide a clear-cut conclusion. Teker, Teker, & Kent (2011) also suggested that the banks should be ranked on the basis of performance index rather than individual ratios. Another advantage of composing such index is that it enables researcher to do regression analysis to identify the significant determinants of financial performance. Most of previous studies calculated CAMEL test without "S" factor which is sensitivity to risk. By adding market risk and Sharī'ah risk in sensitivity to risk analysis, this study has also calculated the sensitivity to risk in broader perspective.¹

Examination of financial performance of banks is of great significance for bank management, investors, and policymakers. In any economy, banking sector contributes toward better financial performance and helps in better resource utilization (Ahmed, 2010). Similarly, Bourke (1989)

¹ Market risk is calculated through return index by taking standard deviation and variance of KSE-100 index. Sharī'ah risk has been calculated through basic indicator approach (BIA) in which alpha is set at 15% to absorb the operational risk that includes Sharī'ah non compliant risk.

reported that banks with high profitability remain well capitalized and have easy access to the funds. Indeed, a well-functioning banking system plays a significant role in resource allocation, economic growth, and financial performance of overall financial system. Further, better financial performance of banks contributes toward investment uplift, which is beneficial for shareholders as well as for the whole economy.

The rest of the paper is organized as follows. The relevant literature review is presented in Section 2. Section 3 describes the methodology and data. The empirical results are given in Section 4. Finally, Section 5 concludes the paper with some key findings and recommendations.

2. Literature Review

There is a large number of empirical studies in which researchers have evaluated the performance of banking sector using ratio analysis and CAMEL model. This section provides relevant literature about CAMEL test, CAMEL ranking techniques, and progress ratios.

The existing empirical studies have used different financial ratios to examine the performance of individual bank and the overall effect of all indicators on bank performance. For example, Prasad & Ravinder (2012) examined the performance of Indian banks over the period 2006-2010. They used CAMEL model technique through parameters including capital adequacy ratio, assets quality, management, earnings, and liquidity. Then they ranked each ratio of CAMEL parameters. They found that Andhra Bank (AB) was at the top position, whereas, Central Bank of India (CBOI) was at the bottom. Ongore & Kusa (2013) examined the conventional banks' performance in Kenya for the period of 2001-2010. They used ROA, ROE, and NIM (net interest margin) as a proxy of performance indicators, CAMEL's parameters were as bank variables, and GDP and inflation as macroeconomic indicators. GLS and OLS techniques were applied to analyze the impact of these variables on banks' performance. They concluded that bank variables have more significant effects on performance as compared to that of macroeconomic indicators.

Reddy (2012) evaluated the relative performance of Indian banks using CAMEL approach and ranking method for the period of 1999-2009. He calculated the performance through modified CAMEL approach, specifically, he calculated the progress ratio of each bank by composite score formula. The results of progress ratio are categorized by progress category such as good, very good, medium, average, and very bad progression. He reported that Mashreq Bank, China Trust Commercial Bank (CTCB), and Bank of Ceylon (BOC) were best performers due to

high capital and liquidity, whereas, worst three banks in terms of performance were American Express Bank (AEB), Development Credit Bank (DCB), and Catholic Syriyan Bank (CSB) due to poor asset quality, management quality, bad earnings, and low capital. Similarly, Teker, Teker, & Kent (2011) analyzed the performances of Turkey's commercial banks over the period 2003-2010. They developed index to measure the financial performance. The parameters, such as management efficiency, liquidity, profitability, capital adequacy, asset quality, growth, and market value of banks, were used to develop the index. They took sample of 13 banks and ranked all banks for each year through the proposed index. Moreover, the results of performance index were compared to the annual net income and ROE of banks. They concluded that Garanati Bank and Akbank were the best performers in 2009 and 2010. Isbank showed a decrease in performance during 2006 and 2007. Garanati Bank showed most consistent and significant performance increase under eight year review.

Another branch of studies have focused on analyzing the financial performance of conventional *versus* Islamic banks. For example, Siraj & Pillai (2012), Merchant (2012), Rashwan (2012), Parashar & Venkatesh (2010), Loghod (2010), Khamis & Senhadji, and Hassan & Dridi (2010) have compared the performance of Islamic and conventional banks. These studies have documented that during the 2008 financial crisis, Islamic banks were more efficient than their conventional counterparts. Said differently, the performance of Islamic banks was less affected by the financial crisis as compared to conventional banks. Despite Islamic banks suffered more compared to their counterpart conventional in terms of operationg efficiency, they performed relatively better in terms of leverage, capital adequacy, and liquidity management. Indeed, Islamic Shariah compalince mechanism of Islamic banks provided them better resilience to negative profitability shocks and conjecture, which might severely affected conventional banks. Yet, during the crisis period, Islamic banks showed poor performance due to management inefficiency despite lesser financial expense incurred on borrowing resources from outside parties.

Reviewing the literature on Pakistan we find that several empirical studies have examined the performance of Islamic banks in comparison to conventional banks by using different methods. Some studies have examined the performance in CAMEL framework, while others studies have investigated the performance by regression analysis. However, the results of these studies are mixed at best. In particular, we observe that

empirical findings on whether Islamic banks financially perform better than conventional banks or vice versa are mainly attributed to the analyzed ratios. For example, Usman & Khan (2012), Jaffar & Manarvi (2011), and Ansari & Rehman (2010) examined the performance by applying CAMEL test and financial ratios. They found that Islamic banks have better liquidity, economic growth, and profitability as compared to conventional banks, whereas conventional banks are better in management efficiency and earning ability. Specifically, Jaffar & Manarvi (2011) compared and analyzed the performance of full-fledged Islamic (Meezan Bank, Albaraka Islamic Bank, Dubai Islamic Bank, Bank Islami Pakistan, and Dawood Islamic Bank) and conventional banks (Allied Commercial Bank Ltd, Muslim Commercial Bank, Standard Chartered Bank, Habib Bank Ltd, and AL-Falah Bank) in Pakistan through CAMEL test for the period of 2005-2009. They found that management and earnings of conventional banks are better, whereas, Islamic banks perform better in managing the capital and liquidity. Asset quality is same in both types of banks.

Similarly, Shar et al (2010) evaluated the performance of Pakistan's banking sector using bank-o-meter model for the period of 1999-2002. They compared this model with CAMEL test and Credit Leona's Securities Asia (CLSA) stress test. They concluded that it is precise and accurate model rather than previous lengthy models. They have also reported that banks which were solvent or insolvent according to previous literature having same results with this model. Likewise, Hanif, et al (2012) evaluated the Pakistani banks performance through internal and external factors over the period 2005-2009. While internal performance was measured by bank-o-meter model, they measured external performance by customers' satisfaction. They found that Islamic banks were best in solvency and credit risk, while conventional banks performed well in profitability and liquidity. Kouser & Saba (2012) have analyzed performance of full-fledged Islamic banks and mixed banks (conventional banks with Islamic windows). They used CAMEL test to analyze the performance of pure Islamic banks and mixed banks for the period of 2006-2010. They used analysis of variance (ANOVA) to check the significance of variables. Their results showed that Islamic banks have good asset quality, capital, and management as compared to mixed banks. Islamic branches of conventional banks have good earnings as compared to pure Islamic and conventional banks.

Moin (2013) examined the performance of Meezan Bank relative to 5 conventional banks in Pakistan for the period of 2003-2007. He used 12 financial ratios to calculate performance and examined significance by t test

and F test. He concluded that Meezan bank was less efficient and less risky as compared to conventional banks. He further reported that liquidity position was same in both types of banks. Sehrish et al (2012) compared the financial performance of Islamic banks with their conventional counterparts using annual data covering the period 2007-2011. Using six different ratios as a measure of performance, they found that in terms of dealing in loans, Islamic banks are less risky, whereas, in terms of expense management, they are less efficient, as compared to their counterpart conventional banks. Further, they indicated that in terms of profitability, both types of banks are almost identical, however.

In Pakistan, different researchers examined Islamic and conventional banks performance using different statistical methods, such as CAMEL test, regression analysis, data envelopment analysis, and calculating different financial ratios. However, no one developed financial performance index (FPI) for Pakistani banks. Therefore, the current study constructs financial performance index (FPI) based on CAMELS' ratios and ranks the banks according to the constructed FPI. The main purpose of the study is to compare the financial performance of Islamic and conventional banks based on the constructed FPI. Further, the study also aims to examine the performance of both types of banking over time.

3. Methodology

This section presents discussion of methodology, data, sample, and variables description in detail. The performance index developed by Teker, Teker, & Kent (2011) is considered as a basic model to calculate financial performance index for each bank over the sample period. The FPI has been developed based on CAMELS' parameters. Teker, Teker, & Kent (2011) took some CAMEL related ratios of to develop index. This study attempts to analyze the FPI and following Prasad & Ravinder (2012) and Reddy (2012) ranks banks on the basis of the constructed FPI.

3.1. Data and Sample

The annual data pertaining to the period from 2006 to 2012 for all Islamic banks and conventional banks (except for a few small or public sector banks) are used in this study. . This study selected a sample of 22 banks and secondary data are collected from income statement and balance sheets of particular banks which are obtained from banks' website.

3.2. Estimation Technique

In this study, we applied CAMELS' test and ranking technique to examine banks' performance. After calculating the ratios, this study develops a

financial performance index using CAMELS' parameters. Each parameter is assigned a particular weight. Specifically, weights are assigned according to the gain earned by the banks and importance of the parameters in CAMELS' model. Equal weights have been assigned to CAMELS parameters including asset quality, earnings, capital adequacy, and sensitivity to risk because these three factors help in the growth, efficiency, and survival of banks, while management, and liquidity are assigned lesser weight because high liquidity reduces profitability of banks (Reddy, 2012). Reddy (2012) assigned weights to individual ratios and overall parameters according to the banks' gains. The current study has used objective method to analyze the performance of Islamic banks in comparison to conventional banks. The construction of financial performance index (FPI) is divided in two sections

- First, the study developed individual bank indices for the bank from 2006-2012 by standardizing the individual ratios.
- Second, the overall FPI was developed for all banks, which is the composite of individual FPIs.

In making index, we standardized the values as follows:

$$\text{standardized value } S_{ijt} = [(\beta_{ijt} - \mu_{jt}) / \sigma_{jt}]$$

μ_{jt} = Sample mean

σ_{jt} = Standard deviation of CAMELS' parameter (j_{th} indicator) at time t .

β_{ijt} = Individual ratio of each CAMELS' parameter for a specific bank at time t .

The FPI of each performance parameter is developed by calculating standardized value of each ratio in CAMELS' parameters with prescribed weights that are described in Table A.1 in Appendix A. Standardization is a normal distribution with a mean 0 and standard deviation 1 and main purpose to standardize the variables is to get appropriate result by combining the different scales variables to one scale variable. Performance parameters and their characteristics are described in Tables A.2 and A.3, respectively, in Appendix A.

Teker, Teker & Kent (2011) developed equations to merge standardized value of each ratio of each CAMELS' parameter. CAMELS' parameters for each bank are calculated as follows:

$$\text{Capital adequacy: } CA_{it} = W_{1it} S_{1it} + W_{2it} S_{2it} + W_{3it} S_{3it}$$

$$\text{Asset quality: } AQ_{it} = W_{1it}S_{1it} + W_{2it}S_{2it}$$

$$\text{Management: } MT_{it} = W_{1it}S_{1it} + W_{2it}S_{2it} + W_{3it}S_{3it}$$

$$\text{Earnings: } ES_{it} = W_{1it}S_{1it} + W_{2it}S_{2it} + W_{3it}S_{3it}$$

$$\text{Liquidity: } LY_{it} = W_{1it}S_{1it} + W_{2it}S_{2it} + W_{3it}S_{3it}$$

$$\text{Sensitivity to risk: } RK_{it} = W_{1it}S_{1it} + W_{2it}S_{2it}$$

S_{it} is a standardized value of CAMELS' parameter of i^{th} bank at time t , whereas, W_{it} is the prescribed weight for any bank at time t . FPI of each bank for each year is calculated through capital adequacy (CA_{it}), asset quality (AQ_{it}), management (MT_{it}), earnings (ES_{it}), liquidity (LY_{it}), and sensitivity to risk (RK_{it}). The FPI for i^{th} bank is then calculated as follows:

$$FPI_i = \alpha_{j1}CA_{it} + \alpha_{j2}AQ_{it} + \alpha_{j3}MT_{it} + \alpha_{j4}ES_{it} + \alpha_{j5}LY_{it} + \alpha_{j6}RK_{it}$$

where α_j is the prescribed weight for banks i^{th} at time t . CA_{it} , AQ_{it} , MT_{it} , ES_{it} , LY_{it} , and RK_{it} are the CAMELS' performance parameters for i^{th} bank at time t . Banks are ranked according to their FPI value for each year. After making performance index, we calculated the progress of the banks through progress ratio (PR) as follows:

$$\text{Progress ratio: } PR = \left[\frac{\text{composite value of bank in 2012}}{\text{composite value of bank in 2006}} \right]$$

It depicts the progress of a particular bank in 2012 with respect to base year 2006. All CAMELS' ratios are averaged to get component value and finally all component values are averaged to get overall composite value of each bank.

The composite value is calculated as follows:

$$\text{component value } (cv_j) = \Sigma wi [(R - LL)/(UL - LL)]$$

$$\text{composite value } (cv) = w_j cv_j$$

cv_j = Component value of each category in CAMELS.²

² Category means all parameters included in CAMELS' model, such as capital, asset, management, earnings, liquidity, and sensitivity to risk.

w_i = Weights assigned to individual ratio in each component of CAMELS.³

R = Value of each ratio in CAMELS.

LL= Lower limit (min ratio among all banks).

UL= Upper limit (max ratio among all banks).

All performance parameters and characteristics are ranked according to prescribed weights.⁴

4. Empirical Results and Analysis

In this section, we have discussed the results of different procedures one by one as applied in this study namely, ranking of banks on the basis of FPI, construction of composite FPI, and banks' progress ratio.

4.1. Ranking of Banks on the Basis of the FPI

The results are presented in Table A.4 in Appendix A and Figures 1-7 in Appendix B that show the ranking of all banks from 2006-2012 with respect to the financial performance index (FPI).

Bank Alfalah limited (BAFL) is ranked at the 1st position in 2006 and 2007; after that BAFL's performance decreased during 2008-2010, but again in 2011, BAFL ranked at the top position. Muslim Commercial Bank (MCB) ranked at the top position in 2008, 2009, and 2012. In the remaining years, MCB is ranked in the top three banks and it shows good performance in overall sample time span. On the other hand, HBL and UBL are ranked at second and third position in 2008, respectively. UBL is ranked at third and fourth position respectively during the period 2007-2008 and 2009-2008. The most surprising performance is that of SAMBA bank. In 2006 and 2008, SAMBA bank was at the 20th and 15th position, but with the passage of time it emerged as on the top three banks in 2009 and 2012. Islamic banks remained in lower position in terms of performance. For instance, Meezan Bank Limited (MBL) stood in 12th to 18th position during the examined period. Other Islamic banks also remained in the bottom position.

We can see from Table A.4 that most of the banks showed poor performance such as Bank Islami, Albaraka Bank, and Burj Bank, but the negative gap in terms of their bad performance reduced in 2011 and 2012.

³ Component depicts the each ratio included in each parameter of CAMELS' model.

⁴ Performance parameters are described in Table A.2.

Silk Bank, Summit Bank, JS Bank and KASB showed bad performance in early years (2006-2008) and then again in 2011 and 2012, mainly due to low capital adequacy ratio and ROA. These banks had negative ROA and low capital adequacy ratio as shown in Tables A.5 and A.6 in Appendix A. High capital adequacy ratio shows that a bank has high capital to meet unexpected losses and reflects better financial health of the bank.

The capital adequacy ratio (CAR) in the range of 8-40% predicts financial soundness of bank according to the literature, such as Shar, Shah, Jamali (2010) and Makkar and Singh (2012). Silk Bank had the CAR ranging from 0.56 in 2009 to 9.77 in 2006. Similarly, KASB also had very low CAR in most of the examined years. In fact, KASB had a negative CAR in 2010 and 2012. As per the BASEL standard, the banks should have CAR above 8 to be financially strong, but in case of the above banks, CAR was below 8% in most of the years. This shows that banks did not have enough capital to meet the possible losses.

4.2. Construction of Composite FPI

Composite FPI shows the average performance of all banks from 2006 to 2012. We calculated average of the FPIs, which is composite of all years' values. We then ranked this value, which is presented in Table 1. According to the ranking of banks, MCB was at the 1st rank, BAFL at the 2nd, HBL at the 3rd, and UBL at the 4th rank. Islamic banks such as MBL, Dubai Islamic Bank (DIBL), Bank Al Islami (BAI), Burj Bank (BBL), Albaraka Bank limited (ABBL) stood at the 13th, 14th, 17th, 20th, and 21st position respectively. So, we can report that conventional banks are at top ranking according to the composite FPI. It shows that they are performing well in all the parameters, namely, capital, assets, management, earnings, liquidity, and sensitivity to risk, as FPI is blend of these parameters. Top three well-performing banks are MCB, BAFL, and HBL, whereas, top badly performing banks are BURJ Bank, KASB, and ABBL. The results also show that Islamic banks' performance was not up to the mark.

One of the possible reasons of their low performance could be that Islamic banks started their business lately and hence they might take some time to improve their performance in all these parameters. Higher cost is another reason for bad performance of Islamic banks. The findings by Merchant (2012) also support our conclusion. He also reported that Islamic banks have much capital but their performance is low due to management inefficiency. Similarly, Jaffar & Manarvi (2011) reported that Islamic banks have better liquidity and adequate capital, but the management of conventional banks is better. Composite FPI is presented

graphically in Figure 8 (see Appendix B), which depicts all banks performance from 1st to 22th ranks. It reveals that how composite FPI moves from top rank bank (MCB) to lowest rank bank (KASB).

Table 1: Composite FPI

BANKS	2006	2007	2008	2009	2010	2011	2012	Cmp.FP I	R	Type
MCB	0.438	0.45	0.56	0.49	0.48	0.44	0.90	0.54	1	CB
ALFALAH	0.513	0.57	0.19	0.37	0.38	0.48	0.54	0.43	2	CB
HBL	0.396	0.29	0.4	0.29	0.50	0.36	0.28	0.361	3	CB
UBL	0.301	0.44	0.39	0.30	0.30	0.22	0.18	0.306	4	CB
BANK AL HABIB	0.33	0.27	0.37	0.20	0.19	0.47	0.26	0.30	5	CB
ABL	0.39	0.15	0.22	0.21	0.17	0.13	0.23	0.21	6	CB
STAN CHART.	0.23	0.19	0.16	0.16	0.25	0.16	0.25	0.20	7	CB
ASKARI	0.25	0.31	0.26	0.19	0.17	0.13	0.001	0.19	8	CB
HABIB METRO	0.22	0.17	0.32	0.14	0.15	0.05	0.05	0.16	9	CB
FAYSAL	0.31	0.29	0.21	0.13	-0.01	-0.00	0.02	0.13	10	CB
SONERI BANK	0.15	0.02	0.27	0.07	0.04	0.05	0.02	0.09	11	CB
SAMBA	-0.61	-0.20	-0.24	0.32	0.24	0.35	0.46	0.04	12	CB
MEEZAN BNK	0.00	-0.02	0.04	0.09	-0.23	0.005	-0.02	-0.02	13	IB
DIBL	-0.36	-0.45	-0.49	-0.08	0.10	-0.17	0.060	-0.2	14	IB
NIB	-0.23	-0.74	-0.35	0.14	-0.19	-0.03	-0.06	-0.2	15	CB
SUMMIT BANK	0.03	-0.06	-0.02	-0.50	-0.09	-0.38	-0.72	-0.25	16	CB
BANKISL AMI	-0.10	-0.35	-0.32	-0.35	-0.30	-0.20	-0.13	-0.25	17	IB
JS BANK	-0.46	-0.26	-0.17	-0.30	-0.40	-0.38	-0.29	-0.33	18	CB
SILK BANK	-0.09	-0.64	-0.65	-0.30	-0.14	-0.07	-0.51	-0.35	19	CB
BURJ BANK	-1.13	-0.33	0.00	-0.14	-0.49	-0.27	-0.21	-0.37	20	IB
ALBARA KA	-1.05	-0.44	-0.46	-0.62	-0.22	-0.20	-0.61	-0.52	21	IB
KASB	-0.12	0.08	-0.60	-0.75	-1.26	-1.15	-0.66	-0.64	22	CB

Note: CB = Conventional Bank, IB = Islamic Bank

Table 2: Progress of Banks

#	BANK	PROGRESS RATIO	PROGRESS
1	BURJ BANK	7.1585	VG
2	ALBARAKA	6.9335	VG
3	SAMBA	5.4625	VG
4	DIBL	4.2884	G
5	JS	4.2732	G
6	NIB	3.7154	M
7	MEEZAN BNK	3.4831	M
8	BANKISLAMI	3.4651	AVG
9	STAN CHART.	3.3471	AVG
10	MCB	3.3089	AVG
11	UBL	3.3079	AVG
12	SILK BANK	3.2588	AVG
13	KASB	3.2343	AVG
14	HBL	3.2204	AVG
15	HABIB METRO	3.1691	AVG
16	SONERI BANK	3.1525	AVG
17	ALFALAH	3.1440	AVG
18	BANK AL HABIB	3.1272	AVG
19	ABL	3.1160	AVG
20	ASKARI	3.1103	AVG
21	FAYSAL	3.0471	AVG
22	SUMMIT BANK	2.8331	AVG

Note: VG = Very good, G = Good, M = Medium, AVG = Average

4.3. Bank Progress

Banks' progress is calculated through progress ratio that depicts the performance of one bank in 2012 with respect to 2006 as a base year. Progress ratios of all banks are presented in Table 2 and Table 3, showing the degree of banks' progress. Progress ratio indicates that Islamic banks remained best in their performance, comparing their performance of 2012 with that of 2006. Among Islamic banks, the progress of Al Baraka Bank Limited (ABBL) and Burj Bank Limited (BBL) is better as compared to other Islamic banks. MBL's performance remained medium, whereas DIBL's progress was good. In conventional banks, SAMBA Bank's progress had been very good; JS Bank showed good progress, whereas, NIB showed medium progress. All other banks' progress remained average. Islamic bank in the beginning were not as better as conventional one because of the high operating cost and smaller bank size. As such, Islamic banks' assets were also at lower level, which affected their productivity. Keeping in view the progress, however, we can say that Islamic banks'

performance remained good vis-à-vis the conventional banks because the former improved their performance from 2006 to onward possibly due to the reason that Islamic banks increase their deposits (mudarabah and demand), which are main source of earnings for banks. Banks' progress is presented in Figure 9 (see Appendix B).

Table 3: Degree of Banks' Progress

Definition of banks' progress	Category
Progress ratio less than mean $-0.842(S.D) = [2.768186]$	Very bad progress (VB)
Progress ratio between mean $-0.842(S.D)$ and mean $-0.253(S.D) = [2.76818---3.475986]$	Average progress (AVG)
Progress ratio between mean $-0.253(S.D)$ and mean $+0.253(S.D) = [3.475986----4.083785]$	Medium progress (M)
Progress ratio between mean $+0.253(S.D)$ and mean $+0.842(S.D) = [4.0837----4.79158]$	Good progress (G)
Progress ratio greater than mean $+0.842(S.D) = [4.79158595]$	Very good progress (VG)
Note: S.D – Standard Deviation of Progress Ratio.	

5. Conclusions

In banks' ranking, conventional banks remained on top of the list, whereas, most of the Islamic banks stood after 12th rank. A reason for this could be the shorter age and experience of Islamic banks that started working from 2003 onward, while conventional banks have many years of operating history. The other reasons might include:

- Islamic banks face a number of limitations with respect to profitability and productivity, for example, Islamic money market is virtually absent and capital market observes longer maturities.
- Statutory liquidity requirement (SLR) is profitable for conventional banks that can invest in T-bills; whereas, Islamic banks have limited access to SLR eligible sukuk.
- Cross-country investments are hard to materialize for Islamic banks due to prohibition of interest.
- In view of displaced commercial risk, some Islamic banks might be forced to donate a part of their profit share to the saving and investment deposit accounts in an effort to retain them, when

conventional banks' rates might exceed the returns of Islamic banks.

This research has also computed banks' performance in terms of progress ratio. The progress of Islamic banks remained better than that of conventional banks. The Islamic banks established during 2003-2006, improved their performance in 2012 as compared to 2006. Overall performance was calculated by averaging the all years' FPIs (2006-2012) to get composite of individual FPI. According to composite FPI, MCB, BAFL, HBL, and UBL emerged as top four conventional banks, whereas, MBL stood at the 13th position and other Islamic banks ranked after 14th position. Among Islamic banks, MBL topped the list.

Based on the results we presented in this paper, we can conclude that Islamic banks have performed better in terms of progress ratio while conventional banks have performed well in terms of FPI and ranking procedure. Overall our results are in line with the existing theories and consistent with the previous empirical studies including Zeitun (2012), Almazari (2014), Akhter, Ali and Ahmed (2011), Jaffar and Manarvi (2011), Merchant (2012), and Alper & Anber (2011). However, from the year 2013 onwards, Islamic banks have devised new products like *ṣukūk murābaḥah* for liquidity placements, running *mushārakah* for corporate sector, currency hedging, etc. Similarly, SBP has introduced *bai'al-mu'ajjal* of GoP *ijārah ṣukūk* based Open Market Operation for Islamic banks. However, there are Sharī'ah issues in such products (Ayub, 2014), Future researches need to explore these issues and performance and progress of Islamic banks since 2012 onward.

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Appendix A

Table A.1: Overview of weights assigned to parameters

Performance Parameters	Composite Weights	Parameters Characteristics	Weights
Capital Adequacy	20%	1. Capital Adequacy ratio 2. Leverage ratio 3. Coverage ratio	40% 30% 30%
Asset Quality	20%	1. Govt. security/total investment 2. Standard advances/total advances	50% 50%
Management	10%	1. Earning asset/total assets 2. Asset utilization ratio 3. Total advances to deposits	40% 40% 20%
Earnings	20%	1. Return on Assets (ROA) 2. Return on Equity (ROE) 3. Spread to total asset	40% 40% 20%
Liquidity	10%	1. Net loan /total assets 2. Net loan/customer and short term funding 3. liquid assets /total assets	35% 35% 30%
Sensitivity to Risk	20%	1. Market risk 2. Shariah risk (operational risk)	50% 50%

Note: Weights are assigned according to the gain earned by the banks and importance of the parameters in CAMELS' model by following the paper of Reddy (2012).

Table A.2: Overview of performance parameters description

Performance Parameters	Description	Parameters Characteristics
Capital Adequacy	Capital adequacy describes that how a bank can meet unexpected losses with their funds and capital. Bank can avoid bankruptcy issues by having much capital and can satisfy their customers.	<ol style="list-style-type: none"> 1. Capital adequacy ratio 2. Leverage ratio (debt to equity) 3. Coverage ratio (net worth-Nonperforming asset/total assets).
Asset Quality	Asset quality describes how a bank can use their advances in generating the income.	<ol style="list-style-type: none"> 1. Govt. security/total investment 2. Standard advances/total advances
Management	This parameter is used to examine the management & efficiency of banks. It indicates how banks maximize their profits and business activity.	<ol style="list-style-type: none"> 1. Earning asset/total assets 2. Asset utilization ratio 3. Total advances/deposits
Earnings	Earning describes how banks earn and sustain their earnings in the future. It also shows the growth of banks in the form of profits.	<ol style="list-style-type: none"> 1. Return on Assets (ROA) 2. Return on Equity (ROE) 3. Spread/total assets
Liquidity	Liquidity is most important parameter for any bank. It indicates how bank meets its obligations. Among all assets, Cash and investment are most liquid bank assets.	<ol style="list-style-type: none"> 1. Net loan/total assets 2. Net loan/customer and short term funding 3. Liquid assets/total assets
Sensitivity to Risk	It depicts how risks affect the performance of the banks.	<ol style="list-style-type: none"> 1. Market risk 2. Shariah risk (operational risk)

Table A.3: Description of parameter characteristics

	Parameters Characteristics	Description
Capital Adequacy	<ul style="list-style-type: none"> a. Capital adequacy ratio b. Leverage ratio(debt to equity) c. Coverage ratio(net worth-non performing asset/total assets) 	<ul style="list-style-type: none"> a. Capital Adequacy Ratio is taken from balance sheet of particular bank Higher value shows better financial health and depicts less chances off losses b. It shows the financial leverage of a bank. It indicates the relative proportion of shareholders equity and debt used to finance banks assets. c. It shows the availability of capital to meet losses. Higher value depicts the capital abundance to absorb the losses.
Asset Quality	<ul style="list-style-type: none"> a. Govt. security/total investment b. Standard advances/total advances 	<ul style="list-style-type: none"> a. Govt. security to total investment ratio depicts the strategy of banks “high risk high profit” or” low risk low profit”. Govt. securities are risk free and safe debt instrument. b. Standard advances are sum of total advances and gross non-performing assets. High value depicts banks have high performing assets.
Management	<ul style="list-style-type: none"> a. Earning asset/total assets b. Asset Utilization c. Total advances to deposits 	<ul style="list-style-type: none"> a. It shows the effectiveness of management to put its asset into work. High ratio shows effectiveness of the banks. It is not 100% controlled by the management. b. It shows management ability to best use of its asset to generate income. It is calculated as net income / avg. total assets. It shows how much income is generated for one dollar. c. It depicts the ability of bank to convert its deposit on high earning advances.
Earnings Management	<ul style="list-style-type: none"> a. Return on Assets (ROA) b. Return on Equity (ROE) c. Spread/total assets 	<ul style="list-style-type: none"> a. It is the ratio of net profit after tax over total assets. Higher value means bank has earned high amount on assets. b. It is calculated as annual net income divided by avg. shareholders’ equity. It shows net income as percentage of shareholders equity. Higher value shows bank is efficient in generating income on investment. c. It shows how a bank can earn revenue for one rupee of investment on assets. High value depicts banks performance is better.

Liquidity	<ul style="list-style-type: none"> a. Net loan/total assets b. Net loan/customer and short term funding c. Liquid assets/total assets 	<ul style="list-style-type: none"> a. It indicates how much percentage of bank assets confined in loans. Higher value shows less liquidity of bank. b. It is also a measure to check liquidity. Low value is better. High value shows lower liquidity of particular bank. c. This ratio measures liquid assets contribution or proportion among all assets. High value depicts bank have more liquid assets.
Sensitivity to Risk	<ul style="list-style-type: none"> a. Market Risk b. Shariah Risk (Operational risk) 	<ul style="list-style-type: none"> a. It depicts how market price fluctuations affect banks performance. Market risk is calculated by variance and standard deviation of market return index as; $R_I = \ln \left(p_t - \frac{p_{t-1}}{p_{t-1}} \right)$ <p>\ln = natural log, p_t = current value of KSE-100 index, p_{t-1} = previous year value of KSE-100 index. After that we take standard deviation and variance of R_I.</p> b. Shariah risk calculated by Basic Indicator Approach (BIA) (IFSB standard). According to BCBS (Basel Committee on Banking Supervision) calculations, a bank that holds α (15%) of its gross income can generate enough capital which absorbs operational risk (Izhar, 2010). $\text{Gross Income} = \text{Net Interest Income} + \text{Net Non Interest Income}$ <p>Operational Capital = $\alpha \times \text{Gross income}$</p> <p>= 15% \times Gross income</p>

Table A.4: Ranking of banks from 2006 to 2012

BANKS	Ranking of Banks on The basis of FPI						
	2006	2007	2008	2009	2010	2011	2012
ALFALAH	1	1	10	2	3	1	2
MCB	2	2	1	1	2	3	1
HBL	3	5	2	5	1	4	4
ABL	4	10	8	6	8	9	7
BANK AL HABIB	5	7	4	7	7	2	5
FAYSAL BANK	6	6	9	12	12	13	12
UBL	7	3	3	4	4	6	8
ASKARI	8	4	7	8	9	8	13
STAN CHART.	9	8	11	9	5	7	6
HABIBMETROPOLITAN	10	9	5	10	10	10	10
SONERI BANK	11	12	6	14	13	11	11
SUMMIT BANK	12	14	14	20	14	20	22
MEEZAN BNK	13	13	12	13	18	12	14
SILK BANK	14	21	22	17	15	15	19
BANKISLAMI	15	18	17	19	19	18	16
KASB	16	11	21	22	22	22	21
NIB	17	22	18	11	16	13	15
DIBL	18	20	20	15	11	16	9
JS Bank	19	16	15	18	20	21	18
SAMBA	20	15	16	3	6	5	3
ALBARAKA BANK	21	19	19	21	17	17	20
BURJ BANK	22	17	13	16	21	19	17

Table A.5: Capital adequacy ratio for all the Banks from 2006-2012

Banks	2006	2007	2008	2009	2010	2011	2012
ALBARAKA	0	50.04	30.33	25.53	15.88	15.29	11.18
MEEZAN BANK	12.8	10.71	9.58	12.77	12.42	14.88	14.08
BANKISLAMI	62.01	39.99	39.83	20.39	19.5	17.57	15.19
DIBL	55.94	25.16	20.7	20.05	20.88	20.85	19.06
BURJ BANK	0	51.8	45.15	50.98	38.44	41.81	22.5
ABL	12.8	9.29	10.9	13.47	13.84	13.43	16.17
ALFALAH	9.48	9.85	8.03	12.46	10.53	11.6	12.67
ASKARI	10.93	12.25	9.22	11.75	10.3	11.35	11.81
MCB	18.65	17.88	16.28	19.07	22.07	21.79	22.13
JS	39.13	34.03	28.89	23.99	17.64	16.13	16.46

KASB	7.36	12.32	9.02	3.53	-3.56	0.08	-0.61
HBL	12.81	11.6	12.33	13.07	13.72	15.15	15.14
HABIB METRO-POLITAN	11.88	11.28	10.43	11.87	10.64	13.93	17.05
FAYSAL	11.42	11.76	9.41	12.36	9.95	10.65	10.75
BANK AL HABIB	9.66	10.84	11.09	14.98	12.82	16.69	15.96
NIB	11.6	6.47	19.53	19.58	14.73	14.11	12.96
SAMBA	28.68	65.43	55.13	57.04	52.61	43.41	43.92
UBL	11.1	10.85	9.96	13.18	14.51	14.28	14.81
SONERI BANK	13.39	12.3	12.66	12.75	12.61	12.4	12.64
SILK BANK	9.77	5.55	7.99	0.56	6.76	6.65	5.69
STAN CHART.	10.19	11.46	9.99	11.57	12.22	12.9	14.28
SUMMIT BANK	56.22	45.03	20.85	12.39	5.35	7.77	4.42

Table A.6: ROA for the period of 2006-2012

Banks	2006	2007	2008	2009	2010	2011	2012
ALBARAKA	-4.4	-0.65	-1.57	-2.85	-1.71	0.566	-0.87
MEEZAN BANK	1.3	1.43	0.73	0.83	1.06	1.69	1.28
BANKISLAMI	-0.208	-0.26	-0.28	-1.39	0.103	0.7	0.553
DIBL	-4.88	-1.85	-0.57	0.64	0.021	0.39	0.55
BURJ BANK		0.745	0.342	-2.24	-3.029	-1.044	0.18
ABL	1.745	1.273	1.134	1.702	1.83	1.97	1.85
ALFALAH	0.639	0.952	0.373	0.231	0.235	0.748	0.849
ASKARI	1.36	1.47	0.187	0.44	0.3	0.474	0.356
MCB	3.55	3.72	3.46	3.04	2.97	2.97	2.73
JS	-0.003	0.174	0.253	-1.81	-1.03	0.667	0.87
KASB	0.517	0.483	-1.88	-7.13	-4.8	-3.33	-1.2
HBL	2.54	1.23	1.39	1.5	1.76	1.95	1.42
HABIB METRO-POLITAN	1.41	1.62	1.79	1.15	1.12	1.14	1.13
FAYSAL	2.44	1.61	0.806	0.664	0.445	0.437	0.455
BANK AL HABIB	1.53	1.57	1.37	1.14	1.195	1.18	1.2
NIB	0.271	-0.198	-4.18	0.332	-6.15	-1.32	0.019
SAMBA	-7.51	-6.4	-4.5	-2.49	-0.392	0.755	0.863
UBL	0.24	1.58	1.37	1.48	1.59	1.99	2.01
SONERI BANK	1.39	0.013	0.865	0.153	0.116	0.604	0.696
SILK BANK	-0.513	-5.67	-3.62	-4.23	-1.56	0.767	-0.386
STAN CHART.	2.317	1.082	0.256	0.214	1.12	1.53	1.519
SUMMIT BANK	1.65	1.27	-0.772	-5.41	-0.646	-1.28	-2.03

Appendix B

FPI for all Banks for the Period 2006-2012

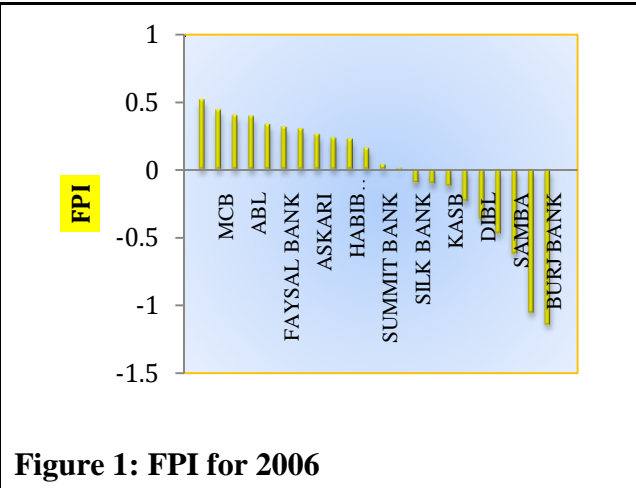


Figure 1: FPI for 2006

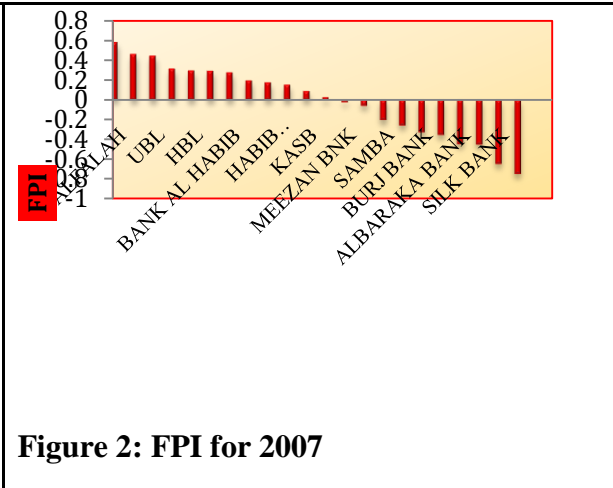


Figure 2: FPI for 2007

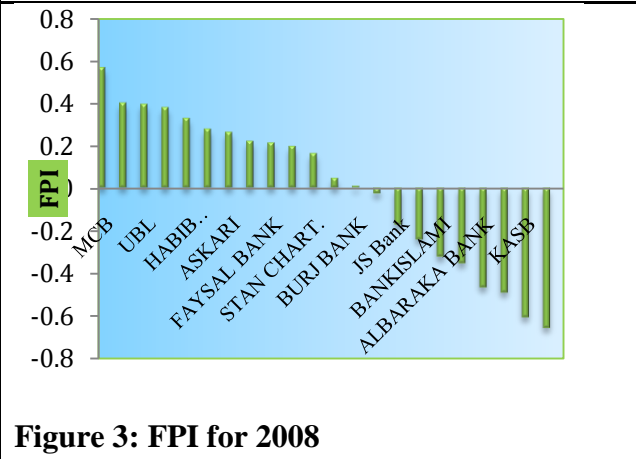


Figure 3: FPI for 2008

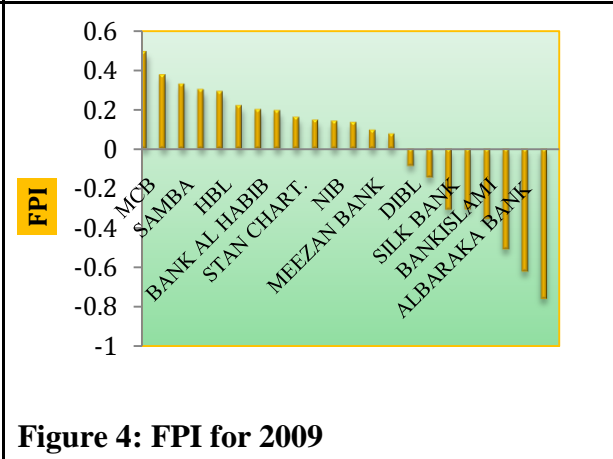


Figure 4: FPI for 2009

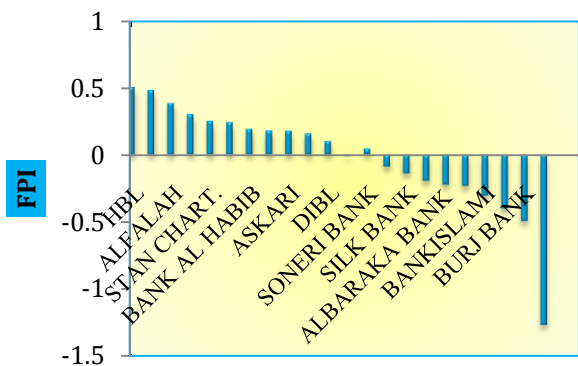


Figure 5: FPI for 2010

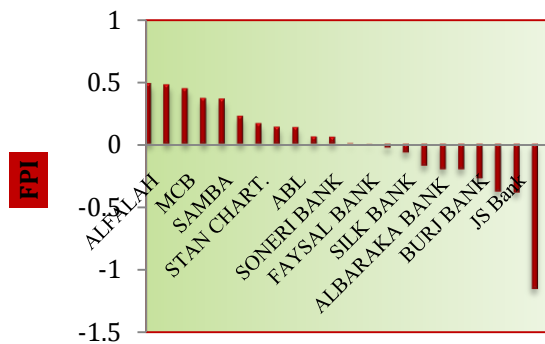


Figure 6: FPI for 2011

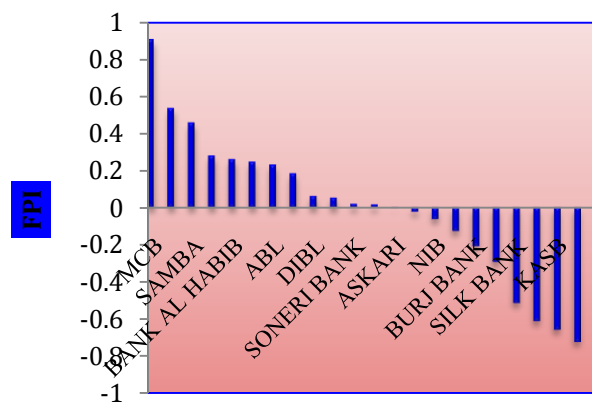


Figure 7: FPI for 2012

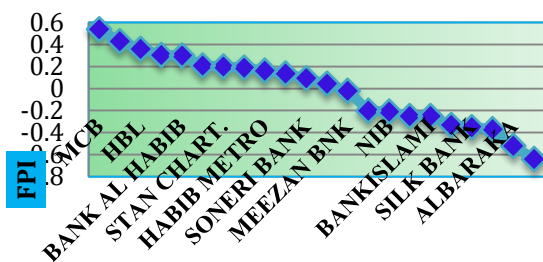


Figure 8: composite FPI

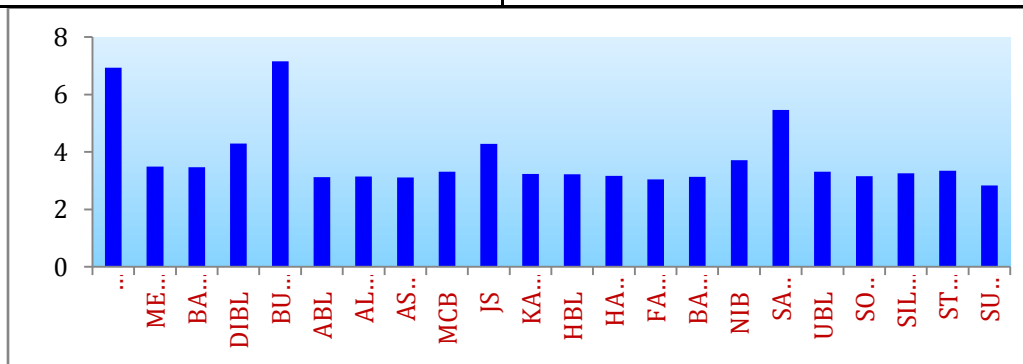


Figure 9: progress of Banks