

The Performance and Efficiency of Islamic Banking in South Asian Countries

Muhammad IRFAN¹

Yasir MAJEED²

Khalid ZAMAN³

ABSTRACT

The objective of this study is to estimate and analyze the Islamic banks efficiency in South Asian Countries. The study sample consists of four countries i.e. Pakistan, Iran, Brunei and Bangladesh for being similar legal, social and economic framework for Islamic banking systems. Stochastic frontier approach is used to estimate the performance through input and output method for the period of 2004 to 2011. Results demonstrate that Islamic banking is efficient about 98.19% with respect to return on asset ratio; with respect to return on equity ratio is about 91.4% and 77.03% with respect to net profit ratio. As per the efficiency-ranking measurement, Brunei stands at top followed by Pakistan, Iran and Bangladesh among the South Asian countries.

KEYWORDS: *Bank's performance indicators, Islamic Banks, Stochastic frontier analysis, South Asian Countries.*

JEL CLASSIFICATION: *G21*

INTRODUCTION

The Islamic banking is emerging industry not in the Muslim countries but also in Non Muslim countries of the world. The working of Islamic banking practice Islamic principles, which eliminate the element of uncertainty and exploitation, therefore its growth and performance is better than conventional banking system. The success and survival of conventional banking needs innovation and invention in its product and services. It would be difficult for a conventional bank to retain or increase the customers in a competitive market without improvement in product and services otherwise the growth become stagnant or fall in long run (Ahmed & Hasan, 2007). The Islamic banking systems developed on Islamic principles and its success depend on Islamic values not on innovations. The Islamic or interest free banking is facing challenges in a manner that how to implement the Islamic principles where world now become as global village. The Islamic banking is in its infant stage and face serious problems to practice Islamic laws as proper interbank money market is not available for regulatory framework for interest free banking.

¹ Department of Management Sciences, COMSATS Institute of Information Technology, Abbottabad, 20060, Pakistan

² Department of Management Sciences, University of Lahore, Islamabad, Pakistan.

³ Department of Management Sciences, COMSATS Institute of Information Technology, Abbottabad, 20060, Pakistan, e-mail: khalidzaman@ciit.net.pk

It is very difficult to say when Islamic banking systems have started its operation. The Islamic financial transactions exist after the spread of Islam in 14th century ago, but no institutions perform or work at that time as bank. Muslims practice Islamic financial modes like "Mudarba", "Musharka", "Murabha", "Ijara" etc on individual basis. Since the introduction of conventional banking system in eighteen century, a thrust arises among Muslims for Islamic banking contrary to conventional banking because of faith (Khan, 1986). Today, Islamic banking is also successful in Non Muslim countries and many countries like United State of America, United Kingdom and Europe has opened Islamic banks and windows in conventional bank (Garas, 2007).

1.1. Objective of the Study

The common people and businesspersons due to lack of knowledge assumed that Islamic banks offer and practice only mortgage finance (Ijara). Therefore, the objective of this study is to analyze the performance of different Islamic modes and efficiency of the Islamic Banks in the south Asian countries.

1.2. Scope and Limitation

The purpose of the study is to investigate and evaluate the performance and efficiency of Islamic banks operating in South Asian countries. Due to non-existence of Islamic Banks and availability of data (few observations), the study area consist of four countries in south Asia i.e. Pakistan, Iran, Bangladesh and Brunei.

The study organizes in the following way, literature reviews followed by methodology and results discussion. Conclusion and recommendation is at end.

2. LITERATURE REVIEW

The banking share (investment) in the market increases by 15% per annum in the world in last decade (Moody's, 2008). The rationale behind the growth of Islamic banking is the element of interest free system (Khan, 1986; Khan & Mirakhor, 1987; Dar, 2003). The nature of Islamic Banking is different from traditional (conventional) banking but Islamic banks have moderate impact on Business sector because Islamic banks follow the systems that are resembles to traditional system and governed by State Bank (Stefflar & Cornilisse, 1995).

Garas (2007) explores that Islamic financial institution facing two types of challenges i.e. internal and external. The internal challenge is to involve those customers who are using conventional banking products whereas external challenge is to fulfill the international transaction requirements due to lack of Islamic regulatory system. To penetrate in international market and increase local potential customers the shariah knowledge and training is required to communicate Islamic product. The application of shariah principles and implication of Islamic products analyze through collaborative research from Shariah scholars and researcher (El-Din & Abdullah, 2007). Whereas, Khan (1986) suggests that Islamic banking utilize the expertise of shariah scholars to judge the shariah compatible problems for financing local and international business.

The working of Islamic banking needs a sharia framework to implement the Islamic transactions. El-Din and Abdullah (2007) study that dual banking is working in Malaysia and when Islamic banks introduce a new concept of hire purchase known as "Ajjara-is-

Iatana", a legal framework is required to implement. The study of Samad et al. (2005) compare the Islamic and non Islamic products in Malaysia and Bahrain. They find that legal framework is required to finance economic activities and payment of "Zakat" according to Shariah principles. Hameed and Bashir (2003) explore the determinants of profitability of the Islamic banking and reveal that profitability has correlation with all sources of funds. They find that Islamic financial products affected by the interest rate and inflation but no significant diversification occurred in earning of Islamic banks. However, the future progress of the Islamic banking may be distorted by the inappropriate protection policy. Ahmed (2007) conducts research in Bangladesh about the performance and regulations of Islamic Banking. He finds that deficiency in the regulatory framework for proper functioning is not according to Shariah rules. The performance of Islamic banking is also affected by the lack of interbank money market and legal requirements of reserve. He suggest that independent banking act should be constituted in Bangladesh for guidance, supervision, control, practice and operations of Islamic banking to provide legal support to the stakeholders.

Stefflar and Cornilisse, (1995) study the comparative analyses of process of privatization and Islamization of bank. They find that banks remain stable in the initial phases of Islamization but their effectiveness is less because Islamic banks bring no change in its product as per the market requirement. Kahf (2002) find that conventional banking is appreciating Islamic banking and Islamic banking is entering into the stream but growth and survival depends on the generation of assets and size of capital. Karbhari et al. (2004) find that the problems face by Islamic Bank in UK for success are the heterogeneous client, lack of expert staff and competition from the conventional banks.

The performance of Islamic banks can be measure through financial ratios. Saleh and Zeitun (2006) use profitability, liquidity, efficiency and solvency ratios to measure the performance of Jordan Islamic Bank for Finance and Investment (JIBFI) and Islamic International Arab Bank (IIAB) in Jordan. They find that profitability of banks increases due to financing short-term ventures. Samad (2004) examines the performance of the interest-free Islamic banks and the interest-based conventional commercial banks for the post Gulf War period of 1990- 2001 in Bahrain. He conclude that there is no major difference between the two sets of banks in terms of profitability and liquidity performances but there is a significant difference in credit performance. The Interest free bank's credit performances are more than non-interest free bank. Kader et al. (2007) compare the performance of Islamic and conventional banks in United Arab Emirates. They examine the balance sheets and income statements of three Islamic banks and five conventional banks for the period 2000 to 2004. The results show that Islamic banks are more profitable, less risky and more efficient than conventional banks. They conclude that the Saving profit and loss (SPL) principle is the main reason for the rapid growth of Islamic banks.

The researchers like Samad (1999), Yudistira (2004). Al-jarrah and Moulyneux (2003), Hussein (2004) use financial, and management ratios for measuring the performance and efficiency of banks through parametric and non-parametric methods. Roger (1998) and Mester (2007) use stochastic frontier approach for measuring the efficiency of Islamic banks. The stochastic frontier approach is less responsive to errors and outliers in minimization of cost by taking translog of inputs and outputs. Mokhtar et al. (2006) use Stochastic Frontier Approach (SFA) to measure cost efficiency of Islamic banks in Malaysia. Their finding shows that on average, the performance of Islamic banking

industry (Islamic banks and Islamic windows) increases during the period of study while conventional banks remain stable. On the other hand, the competence level of Islamic banks is lower than the conventional banks due to limited products. The results further reveal that Islamic banks are more competent than Islamic windows of conventional bank.

The literature on efficiency and performance of Islamic Banking in different parts of the world revealed that it is less risky, more efficient and stable than conventional banking system. The current study extends the literature not only the estimation of efficiency but also the comparison of Islamic banking in South Asian countries.

3. DATA SOURCE AND METHODOLOGICAL FRAMEWORK

3.1. Research Design

The objective of the study is to evaluate the efficiency and performance of banks of south Asian countries. There are seven countries in south Asia but Islamic banks are functioning in five countries i.e. Pakistan, Iran, Brunei, Sri Lanka and Bangladesh. The study excludes the Islamic banks of Sri Lanka due to less no of observation as it starts its operation in 2011. The study sample consists of four countries i.e. Pakistan, Iran, Brunei and Bangladesh as the Islamic banking system in these countries have similar legal, social and economic framework. The sample period is 8 years i.e. from 2004 to 2011. The study is panel study with 4 countries, 7 banks and 8 years.

3.2. Methodology

The objective is to maximize the value of the shareholder equity by increasing the profitability of banks. Therefore, a comprehensive plan has been designed for identifying objectives, goals and strategies. The internal and external competitive factors that affect the performance dimensions are becoming a critical factor in evaluating performance. The performance through internal factors can easily judged through profitability ratios, which reflect that how much management planning and strategy is aligned with objective. is internal factor

The researchers like Samad (1999), Al-jarrah and Moulyneux (2003), Hussein (2004) and Yudistira (2004) use financial, and management ratios for measuring the performance and efficiency of banks through parametric and non-parametric methods. The parametric approach for measuring efficiency has three methods i.e. The Stochastic Frontier Analysis (SFA), Thick Frontier Approach (TFA) and Distribution Free Approach (DFA). The frontier function is in Cobb-Douglas form and assumes constant elasticity of substitution in inputs. The study use SFA as it is less responsive to errors and outliers. The study use profitability ratios and liquidity ratios to measure the bank performance, as these ratios is used by Patnam (1983), Sabi (1996), Samad (1999) and Saleh and Zeitun (2006).

The lists of profitability ratios are as follows:

- **Return on Assets (ROA) Ratio:**

It is the key indicator of the profitability of a corporation. It is the ratio of net profits after taxes with total assets. This ratio is calculated through following formula:

$$\text{ROA} = \text{Net Profit after Taxes} / \text{Total Assets}$$

- **Return on Net Worth Ratio:**

It evaluates the capability of a management of corporation to realize a sufficient return on capital investment. This ratio can be calculated by using the following formula:

$$\text{Net Profit after Taxes/Net Worth}$$

Liquidity Ratios:

It shows how much liquidity is readily available. It has following ratio;

- **Debt to Equity Ratio:**

The ratio indicates about that the organization is leveraging its debt against the working capital. If liabilities exceed net worth then creditors have additional stake than the share owners.

$$\text{Total Liabilities (Debts) / Owners Equity or Net Worth}$$

- **Quick Ratio:**

It shows how much cash and accounts receivables are available to meet the corporation's current obligation. It is calculated by dividing the quick assets of a company with its current liabilities.

$$\text{Quick Asset/ Current Liabilities}$$

$$\text{Whereas quick Asset} = \text{Total Current Asset} - \text{Inventory}$$

3.2.1. Stochastic frontier analysis (SFA)

The study uses three output and eight input variables. The output variables are return on asset (ROA), return on equity (ROE) and net profit ratio (NP). The input variables and their expected signs to output variables are shown in Table 1.

Table 1. List of input variables and their expected signs

Input Variables	Expected Sign
Net income to total debt ratio	positive to NP ratio positive to ROE ratio positive to ROA ratio
Financing advancing to deposit ratio	positive to NP ratio positive to ROE positive to ROA
Investment to deposit ratio	negative to NP ratio negative to ROE negative to ROA
Capital adequacy ratio	negative to NP ratio negative to ROE positive to ROA
Musharka	negative to NP ratio negative to ROE negative to ROA

Input Variables	Expected Sign
Mudharba	negative to NP ratio negative to ROE negative to ROA
Istisn'a	negative to NP ratio negative to ROE negative to ROA
Environment of bank	Number of branches has been used as proxy for the bank environment

Note: NP represents Net profit; ROA represents Return on Asset and ROE represents Return on Equity

3.2.2. Econometric model

The study estimates three outputs separately along with inputs using SFA method. The model for Return on Asset ratio is,

$$ROA_{it} = \alpha + \beta_1 NID_{it} + \beta_2 FADR_{it} + \beta_3 IDR_{it} + \beta_4 CAR_{it} + \beta_5 MUD_{it} + \beta_6 IST_{it} + \beta_7 EOB_{it} + \varepsilon_{it} \quad (1)$$

The model for Return on Equity ratio is,

$$ROE_{it} = \alpha + \beta_1 NID_{it} + \beta_2 FADR_{it} + \beta_3 IDR_{it} + \beta_4 CAR_{it} + \beta_5 MUD_{it} + \beta_6 IST_{it} + \beta_7 EOB_{it} + \varepsilon_{it} \quad (2)$$

The model for Net Profit Ratio is,

$$NP_{it} = \alpha + \beta_1 NID_{it} + \beta_2 FADR_{it} + \beta_3 IDR_{it} + \beta_4 CAR_{it} + \beta_5 MUD_{it} + \beta_6 IST_{it} + \beta_7 EOB_{it} + \varepsilon_{it} \quad (3)$$

where i = no of countries i.e. 4
 t = years i.e. 8

4. RESULTS AND DISCUSSIONS

4.1 Descriptive Statistics

Return on Assets (ROA) is a measure of profitability that measures how efficiently a firm has utilized its assets in generating profits. Usually assets are both financed by debt and equity, ROA figure tells capital providers that how efficiently firm has converted their investment into profits. The results of Table 2 show that except for Pakistan Bank Islami, Iran Bank Melli and Bangladesh Melli bank, remaining banks showed a consistent positive growth in return on assets. Pakistan Al Baraka has showed tremendous growth in 2010 and 2011 where its return on assets increases from 86% in 2009 to 245% in 2011. Except for Iran Bank Melli, all banks showed exceptional return on assets in 2012.

In contrast to ROA, return on equity (ROE) tells how much net income a firm has generated from the capital shareholders have invested. Simply put it measures the rate of return on owner's investment. The results show that Meezan Bank, Bangladesh Islami Bank and Brunei Islami Bank have shown consistent growth in ROE. Remaining banks have positive but fluctuating returns on owner's investments.

Net Profit Ratio determines how much profit a firm has generated for every 100 rupee of sales. This is a measure of overall profitability of business. A high ratio indicates the efficient management of assets and funds. The results show that except for Pakistan Bank Islami and Iran Bank Melli, all banks showed that they are consistently efficient in generating returns on sales.

Table 2. Descriptive statistics of Profitability Ratios of Islamic Banks

Banks\Ratio	2004	2005	2006	2007	2008	2009	2010	2011
Pakistan Meezan								
Return On Asset(ROA)	.55	0.98	1.07	1.18	1.43	1.77	1.84	1.93
Return On Equity(ROE)	6.12	10.29	12.57	15.64	17.21	18.88	21.64	28.18
Net Profit Ratio	4.21	6.68	6.9	7.23	8.27	8.76	11.17	16.51
Pakistan Dubai Islami								
Return On Asset(ROA)	0.13	0.89	1.01	1.12	1.27	1.45	1.47	1.35
Return On Equity(ROE)	1.21	9.19	13.57	15.83	19.02	16.93	19	17.42
Net Profit Ratio	1.86	6.03	7.23	9.84	11.95	16.88	18.1	14.44
Pakistan Bank Al Baraka								
Return On Asset(ROA)	.06	0.13	0.27	0.38	0.45	0.86	1.9	2.45
Return On Equity(ROE)	2.31	3.84	5.25	6.54	8.45	11.45	9.57	16.87
Net Profit Ratio	55.36	75.89	132.67	155.35	180.64	121.35	119.4	124.16
Pakistan Bank Islami								
Return On Asset(ROA)	.43	0.2	1.56	0.25	0.33	1.84	0.12	1.79
Return On Equity(ROE)	.33	0.63	0.81	1.012	1.33	9.93	0.99	8.29
Net Profit Ratio	4.16	8.06	11.33	8.65	25.01	44.67	2.28	31.29
Iran Bank Melli								
Return On Asset(ROA)	.009	0.01	0.18	0.1	0.11	0.21	0.17	0.5
Return On Equity(ROE)	2.13	2.85	4.13	5.57	7.12	4.37	5.79	6.43
Net Profit Ratio	1.15	2.54	3.26	8.27	4.55	4.93	7.44	8.23

Banks\Ratio	2004	2005	2006	2007	2008	2009	2010	2011
Brunei Islami Bank								
Return On Asset(ROA)	.54	0.84	1.02	1.07	1.15	1.18	1.21	1.27
Return On Equity(ROE)	1.78	2.43	3.97	4.73	5.25	5.5	6.52	8.16
Net Profit Ratio	2.97	3.84	4.23	4.85	7.95	9.58	12.56	18.86
Bangladesh Islami Bank								
Return On Asset(ROA)	.13	0.89	1.01	1.12	1.27	1.34	1.47	1.53
Return On Equity(ROE)	6.08	9.19	13.57	15.83	19.02	16.93	19	21.23
Net Profit Ratio	4.34	6.03	7.23	9.84	11.95	16.88	18.1	19.87

The modes of financing such as Musharka, Mudharba and Istisna shows mix result of percentage growth in Pakistan as well as in other South Asian countries in Table 3. The Meezan bank of Pakistan shows that Istisna account is more than Mudharba and Musharka. It has been observed that people prefer to invest either in Musharka or Mudharba rather than Istisna. However, the percentage growth rate of Istisna is positive except Bank Islami Pakistan.

Table 3. Descriptive Statistics of modes of Islamic Banks (in million)

Modes	2004	2005	2006	2007	2008	2009	2010	2011
Meezan (Pakistan)								
Musharka	0	21000	60000	87000	127000	140000	283000	331000
% growth			65.0	31.0	31.5	9.3	50.5	14.5
Mudharba	470000	630000	1350000	1760000	2021249	3040000	3420000	5470000
% growth		25.40	53.33	23.30	12.93	33.51	11.11	37.48
Istisn'a	2130000	4210000	6380000	9895982	12456687	12810000	12110000	16710000
% growth		49.41	34.01	35.53	20.56	2.76	-5.78	27.53

Modes	2004	2005	2006	2007	2008	2009	2010	2011
Dubai Islami (Pakistan)								
Musharka	90000	120000	180000	250000	380000	450000	550000	630000
% growth		25.00	33.33	28.00	34.21	15.56	18.18	12.70
Mudharba	150000	630000	1120000	2670000	4040000	4640000	5300000	5470000
% growth		76.19	43.75	58.05	33.91	12.93	12.45	3.11
Istisn'a	2510000	2970000	3130000	4120000	5800000	6750000	7970000	7880000
% growth		15.49	5.11	24.03	28.97	14.07	15.31	-1.14
Bank Al Baraka (Pakistan)								
Musharka	340000	1360000	4560000	6130000	9080000	11020987	19180568	17624596
% growth		75.0	70.2	25.6	32.5	17.6	42.5	-8.8
Mudharba	12450000	18240000	23670000	27680000	30605489	55102561	60572546	61015400
% growth		31.74	22.94	14.49	9.56	44.46	9.03	0.73
Istisn'a	0	0	0	0	0	0	0	1817540
Bank Islami (Pakistan)								
Musharka	1387000	2233965	4080706	4550654	6867850	5126934	3664498	3905870
% growth		37.91	45.26	10.33	33.74	-33.96	-39.91	6.18
Mudharba	2759000	4327000	5714869	7584000	8425650	58835000	41216500	31578400
% growth		36.24	24.29	24.65	9.99	85.68	-42.75	-30.52
Istisn'a	1920000	2600000	4570790	11210000	18623100	11692540	8660000	13152800
% growth		26.15	43.12	59.23	39.81	-59.27	-35.02	34.16
Bank Melli (Iran)								
Musharka	80000	710580	1460860	2030000	3470000	7570000	9150000	11230000
% growth		88.74	51.36	28.04	41.50	54.16	17.27	18.52
Mudharba	25260000	31564500	21045870	43876050	54958795	58181240	60840500	63810450
% growth		19.97	-49.98	52.03	20.17	5.54	4.37	4.65
Istisn'a	0	32105470	56104578	75840000	9067800	13671650	25366500	38514500
% growth		100.00	42.78	26.02	16.36	33.67	46.10	34.14

Modes	2004	2005	2006	2007	2008	2009	2010	2011
Brunei Islami Bank (Brunei)								
Musharka	69440	137900	201780	305300	414450	499200	583480	8970800
% growth		49.64	31.66	33.91	26.34	16.98	14.44	93.50
Mudharba	60480	110950	153140	248220	375750	553280	759800	1050560
% growth		45.49	27.55	38.30	33.94	32.09	27.18	27.68
Istisn'a	36160	66150	124260	160860	189450	246480	302760	446220
% growth		45.34	46.76	22.75	15.09	23.14	18.59	32.15
Bangladesh Islami Bank (Bangladesh)								
Musharka	320000	875500	1640000	2080000	2510000	2940000	4650000	3130000
% growth		63.45	46.62	21.15	17.13	14.63	36.77	-48.56
Mudharba	80000	132540	210841	284500	350458	4306980	5704500	7405896
% growth		39.64	37.14	25.89	18.82	91.86	24.50	22.97
Istisn'a	130000	356600	570134	689700	871540	1124580	1387500	3851840
% growth		63.54	37.45	17.34	20.86	22.50	18.95	63.98

4.2. Profitability Efficiency Estimates

The Islamic banks in south Asia are efficient on average at 98.19% with respect to Return on Asset ratio, 91.44% with respect to Return on Equity ratio and 77.03% with respect to Net profit ratio. The result of Table 4 shows that Islamic banking is highly technical efficient on Return on asset ratio while least efficient with net profit ratio. The findings of the study show that average efficiency of Islamic Banking remain stable. The Bangladesh Bank Islami shows maximum efficiency among the sample country is 98.58 in year 2007 according to ROA ratio. The Meezan bank shows maximum efficiency in year 2009 while Pakistan Bank Islami in year 2010.

Table 4. Efficiency Measures

Banks	Years	ROA	ROE	NP
Bangladesh Bank Islami	2004	0.982843	0.9167	0.7814
Bangladesh Bank Islami	2005	0.983988	0.9274	0.7939
Bangladesh Bank Islami	2006	0.976757	0.8865	0.7138
Bangladesh Bank Islami	2007	0.985829	0.9339	0.8155
Bangladesh Bank Islami	2008	0.980147	0.9051	0.7495

Banks	Years	ROA	ROE	NP
Bangladesh Bank Islami	2009	0.979298	0.9017	0.74
Bangladesh Bank Islami	2010	0.983572	0.9218	0.7896
Bangladesh Bank Islami	2011	0.98221	0.9162	0.7735
Brunei Darul Islam	2004	0.981569	0.9129	0.7655
Brunei Darul Islam	2005	0.981446	0.9118	0.7645
Brunei Darul Islam	2006	0.98404	0.9249	0.7954
Brunei Darul Islam	2007	0.977996	0.899	0.7215
Brunei Darul Islam	2008	0.983017	0.9134	0.7868
Brunei Darul Islam	2009	0.982645	0.9194	0.7776
Brunei Darul Islam	2010	0.985515	0.9325	0.8127
Brunei Darul Islam	2011	0.978737	0.8991	0.733
Iran Bank Meli	2004	0.982155	0.9154	0.7727
Iran Bank Meli	2005	0.981788	0.9128	0.7684
Iran Bank Meli	2006	0.983699	0.9238	0.791
Iran Bank Meli	2007	0.98054	0.9075	0.7539
Iran Bank Meli	2008	0.98172	0.9134	0.7677
Iran Bank Meli	2009	0.982401	0.9162	0.7755
Iran Bank Meli	2010	0.982329	0.9161	0.7748
Iran Bank Meli	2011	0.981951	0.9147	0.7703
Pak Al Baraka	2004	0.982045	0.9148	0.7714
Pak Al Baraka	2005	0.982022	0.9149	0.7712
Pak Al Baraka	2006	0.983098	0.9198	0.7837
Pak Al Baraka	2007	0.980468	0.9074	0.7531
Pak Al Baraka	2008	0.982535	0.9172	0.7772
Pak Al Baraka	2009	0.982275	0.9159	0.7741
Pak Al Baraka	2010	0.981989	0.9146	0.7707
Pak Al Baraka	2011	0.982015	0.9147	0.7711
Pak Bank Islami	2004	0.981767	0.913	0.768
Pak Bank Islami	2005	0.983032	0.9198	0.7831
Pak Bank Islami	2006	0.980119	0.9057	0.7494
Pak Bank Islami	2007	0.98384	0.9234	0.7922
Pak Bank Islami	2008	0.981244	0.9112	0.7624
Pak Bank Islami	2009	0.979845	0.9058	0.7467
Pak Bank Islami	2010	0.98516	0.9289	0.8078
Pak Bank Islami	2011	0.981227	0.911	0.7622

Banks	Years	ROA	ROE	NP
Pak Dubai Islamic Bank	2004	0.982278	0.9152	0.774
Pak Dubai Islamic Bank	2005	0.98071	0.9107	0.7563
Pak Dubai Islamic Bank	2006	0.983211	0.9167	0.7845
Pak Dubai Islamic Bank	2007	0.979837	0.9144	0.75
Pak Dubai Islamic Bank	2008	0.985791	0.927	0.8124
Pak Dubai Islamic Bank	2009	0.979764	0.903	0.746
Pak Dubai Islamic Bank	2010	0.978334	0.8996	0.7319
Pak Dubai Islamic Bank	2011	0.983428	0.9216	0.787
Pak Meezan	2004	0.982151	0.9154	0.7726
Pak Meezan	2005	0.982672	0.9172	0.7786
Pak Meezan	2006	0.980194	0.9063	0.75
Pak Meezan	2007	0.983573	0.9218	0.7891
Pak Meezan	2008	0.981966	0.9174	0.7714
Pak Meezan	2009	0.983868	0.9206	0.7922
Pak Meezan	2010	0.981465	0.9131	0.7648
Pak Meezan	2011	0.982232	0.9154	0.7735
Mean Efficiency		0.981967	0.914494	0.7703

Table 5 shows the estimates of cost efficiency frontier. The results show that net income to debt ratio, financing advances to deposit ratio is positive to ROA, ROE and NP ratio. The efficiency of Islamic banks in each country is different. The efficiency of Islamic banks of Brunei is higher in south Asia with 93.25% followed by Islamic banks in Pakistan with 92.34 % efficiency level. The efficiency level of Islamic banks in Bangladesh and Iran is 91.93% and 91.6% respectively. Kablan and Yousfi (2011) measured 92.72% efficiency of Islamic banks of the world. The efficiency result of this study is 98.18% as compare to Kablan and Yousfi study because the study area is only Islamic countries where demand of Islamic banking system exists. Mokhtar et all (2006) used stochastic frontier approach to estimate the efficiency of Malaysian Islamic banks by using only ROA ratio and their efficiency level is 80%, while this study used ROA, ROE and NP ratio for the south Asian country. The results of this study show that Islamic banks are efficient 98% efficient on ROA and 91% on ROE base ratios in south Asia.

4.3. Cost Efficiency Frontier

The estimates of cost efficiency frontier are given in Table 5. The positive coefficient shows that efficiency increase while the cost decreases. The ROA and ROE increase by 7.6 and 9.6 time if net income to total debt increase by one percent. This also shows that cost of net income to total debt also decrease by 7.6 time and 9.6 time respectively. However the cost decreases by 165 time by net profit ratio to net income to total debt. The ratio of FADR and CAR also shows positive relation with ROA, ROE and NP while negative relation with costs. The ROA decreases by 2.6, 9.9 and 21 percent if cost of Musharka Mudharba and Istins increases by 1 percent respectively. The net profit decreases

by 383 time when cost of istisna increase by one percent. The environment of bank in this study is measured by no of branches of bank which shows that cost of one additional branch has negative impact on profitability ratio especially in case of ROA which is 5.1 percent per additional branch.

Table 5. Estimates for the Cost Efficiency Frontier

Estimates of the Cost Efficiency Frontier			
Variables	ROA	ROE	NP
Constant	178.85***	943.33***	2955.50***
Ni/T.Debt	7.68***	9.61***	165.13***
FADR	5.79***	26.36***	77.42***
IDR	-3.54***	-14.77***	-40.66***
CAR	6.24***	-2.66***	-6.27***
Ln Musharka	-2.68***	-25.73***	-3.29***
Ln Mudharba	-9.95***	-55.33***	-164.20***
Ln Istisn'a	-21.60***	-90.78***	-383.20***
Ln EOB	-5.11***	-4.40***	-3.16***
No of Observation	369	369	369
Gamma	0.9457	0.7866	0.8745

*, ** & *** shows 10%, 5% & 1% level of significance

CONCLUSION AND RECOMMENDATION

The Islamic banks in south Asia are efficient on average at 91.44% with respect to Return on Asset ratio, 98.19% with respect to Return on Equity ratio and 77.03% with respect to Net profit ratio. The efficiency of Islamic banks parameters shows that Return on Asset ratio is more efficient as the financing mode of Islamic banks is based on equity basis. The mode of Islamic financing like Musharka, Mudharba and Istisna is cost effective in ROA and ROE ratio. Since the cost has direct negative impact on net profits therefore the financing of Islamic finance and adverse impact on net profit ratio.

The Islamic banks are overall growing at the rate 18% per annum since 2004 in Asian countries (Samad and Zeitun, 2006). The regulatory authorities have attempted to put sufficient rule for facilitation to incorporate the whole banking system of those countries. The results indicate that the Environment of the bank has negative sign to cost efficiency which means that cost will increase if we improve the environment of bank. The proxy for environment of bank is the number of branches or outlets opened by Islamic banks. However, the increase in number of branches will increase the profitability of banks. The variables like financing advancing to deposit ratio (FADR), investment to deposit ratio (IDR), MUSHARKA, MUDHARBA and ISTISNA have negative impact on the profitability but have positive impact on the efficiency. The variable capital adequacy ratio (CAR) has positive impact on the profitability as net profit increases when capital floated in the bank.

The study tries to provide empirical results of Islamic Banking in South Asian countries. The Islamic Banking in South Asia especially in Pakistan grow rapidly. The modes of Islamic Finance have negative impact on cost but positive impact on efficiency. It would be easy to formulate policies either focusing on cost side or on efficiency side. The results also provide significant insights to bank management and policy makers for the optimal utilization of scarce resources.

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