MEASURING EFFICIENCY OF ISLAMIC BANKS IN BANGLADESH: AN APPLICATION OF DATA ENVELOPMENT ANALYSIS

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ABSTRACT

This paper investigates the technical, pure technical and scale efficiency of the Islamic banks operating in Bangladesh applying a non-parametric, Data Envelopment Analysis (DEA) method. Data were collected from the annual reports of the respective banks, and DEA-solver software was used to analyze the data in two different phases considering different input-output variables. Analysis in the first phase revealed that technical efficiency of all the Islamic banks was very high which amounting to an average of 98 percent, 96 percent, 98 percent and 96 percent in 2010, 2011, 2012, and 2013 respectively. Analysis in the second phase revealed that the inclusion of some new variables changed the result completely. Including some more variables in the analysis of efficiency measurement process, it was found that all the Islamic banks were technically efficient in all the period of the study; except in 2012 SIBL, AAIBL, and ICB Islamic banks which were technically inefficient. Finally, this study came up with some recommendations to enhance the technical efficiency of inefficient banks. Nevertheless, the results of the study are constrained by the lacking of adequate literature in this field of study and robustness of the analysis.

Keywords: DEA, Technical Efficiency, Pure Technical and Scale Efficiency.

1. INTRODUCTION

Any bank, established and operated with the objective to implement and materialize the economic and financial principles of Islamic Shari'ah in the arena of banking is called Islamic bank. The system is based on the Islamic legal concepts of Shirkah (partnership) and Mudaraba (profit sharing). At first, in March 1983, the long drawn struggle to establish an Islamic bank in Bangladesh becomes a reality and Islami Bank Bangladesh Limited (IBBL) was established. Since then, eight full-fledged private Islamic banks and approximately 30 Islamic banking branches of conventional banks have

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been established. At present, IBBL has gained first position in terms of profits, deposits, investment, export , import and remittance collection among the 56 listed commercial banks operating in the country. According to the Bangladesh Bank (BB), the deposits of the Islamic banking systems are now 25 percent of all private banks deposits and its investments are 30 percent. In reality, Islamic banking is a worldwide phenomenon involving a variety of institutions and instruments. In the last few decades, Islamic institutions and instruments have been developed in many countries. Gradually, Islamic banks are expanding all over the world. However, efficiency has always been critical to the enhancement of the output of an organization. This study is designed to determine the technical, pure technical, and scale efficiency of seven Islamic banks currently operating in Bangladesh for the period of 2009-2013 based on DEA approach. The key advantages of DEA over other approaches are that it accommodates more easily both multiple inputs and multiple outputs and is able to measure efficiency. Research undertaken by the previous scholars was given the inspiration to take up the study to analyze the efficiency of Islamic banks using DEA.

1.1 Objectives of the Study

The key objective of the present study is to measure the efficiency of the Islamic banks operating in Bangladesh, except Union Bank Limited, which is a newly established Islamic bank, applying a non-parametric DEA approach. The specific objectives are:

(i) to measure the technical efficiency of Islamic banks selected for this study.
(ii) to assess the pure technical and scale efficiency of Islamic banks under this study.
(iii) to identify the technically efficient and inefficient Islamic banks and
(iv) to suggest recommendation for the technically inefficient banks to overcome the technical inefficiency.

1.2 Literature Review

Islam, Rahman, & Hasan (2014) applied DEA to explore the contributions of technical and efficiency change to the growth of productivity in the Islamic banking sector and considered three inputs, namely deposits, overhead cost, total assets and three outputs, explicitly investment and advances, ROI, ROA respectively to measure efficiency of Islamic banks and found all the Islamic Banks are consistently efficient, both under constant returns to scale and variable returns to scale except IBBL, EXIM bank and SIBL. Meanwhile, IBBL and SIBL are consistently efficient under VRS but not under CRS during the study period. Moreover, the EXIM bank is the least efficient firm for both CRS and VRS versions respectively. Their findings indicate that in the Islamic Banks, the smaller the size of the banks, the higher the probability for the banks to be more efficient in utilizing their inputs to generate more outputs.

Sufian and Kamarudin (2014) investigated efficiency and returns to scale in the Bangladesh banking sector applying Slack-Based DEA Method. They attempted to assess the level of profit efficiency of individual banks over the years 2004 to 2011. The empirical findings of their study indicate that the Bangladeshi banking sector has exhibited the highest and lowest level of profit efficiency during the years 2004 and 2011 respectively. They also found that most of the Bangladeshi

banks have been experiencing economies of scale due to being at less than the optimum size, or diseconomies of scale due to being at more than the optimum size. Thus, decreasing or increasing the scale of production could result in cost savings or efficiencies. The empirical findings seem to suggest that Exim bank has exhibited maximum profit efficiency level. Abduh, Hasan, and Pananjung (2013) investigated the efficiency and performance of Islamic Banks in Bangladesh applying DEA and ratio analysis. This study concludes that SJIBL is better than other Islamic banks in terms of its ROA, ROE, ETA, CAR, IER and AU ratios. On the other hand, with regard to banks' efficiency, all Islamic banks have shown an improvement on their efficiency level. Hoque and Rayhan (2012) explained that under the VRS output results Exim bank and SIBL are technically efficient. Other banks are technically inefficient as their efficiency scores are less than one. Bhuia, Baten, Kamil, and Deb (2012) examined online bank efficiency in Bangladesh applying DEA approach. They considered deposits, capital and labor as input variables and advance, investment and profit are defined as output variables. This study revealed that the most efficient banks were AAIBL and SJIBL.

Rahman (2011) examined the branch-wise technical, pure technical, scale and allocative efficiencies of IBBL using panel data and DEA approach for the year 2003 to 2007. The average allocative efficiency is 61-76%, whereas the average technical efficiency is about 51-65% during the study period. This means that the dominant source of inefficiency is due to both technical inefficiency and allocative inefficiency but technical inefficiency has more contribution to inefficiency than allocative inefficiency. These results are consistent with the fact that the Islamic banks do not operate in an overall regulatory supportive environment. They are not even technically sound enough in their operations. Average scale efficiency is about 53%, and average pure technical efficiency is about 68%, suggesting that the major source of the total technical inefficiency for IBBL branches are not pure technical inefficiency (input related) but scale inefficiency (output related). Study results indicate that there has been moderate increase in productivity growth over the years. Productivity increases in IBBL branches are mainly driven by technological change (opening up and penetrating in other markets) not technical efficiency change (efforts of inefficient banks to catch up with the efficient ones). The results show that the larger branch size is associated with the higher efficiency. These results indirectly support the economies of scale arguments in IBBL branches.

Using DEA approach, Rahman (2010) explained that Islamic banks as a whole is the least efficient, while IBBL alone is slightly more efficient. He also showed that Islamic banks in Bangladesh are improving and converging to a high level of efficiency. Study also found that the Bangladeshi Islamic banking industry, especially IBBL, has in terms of assets, deposits, income and financing base, grown rapidly over the study period 2002 to 2007. Finally, he suggested Islamic banks to redirect their marketing and communication strategies to focus more on targeting floating customers.

2. CONCEPTS AND RESEARCH METHODOLOGY

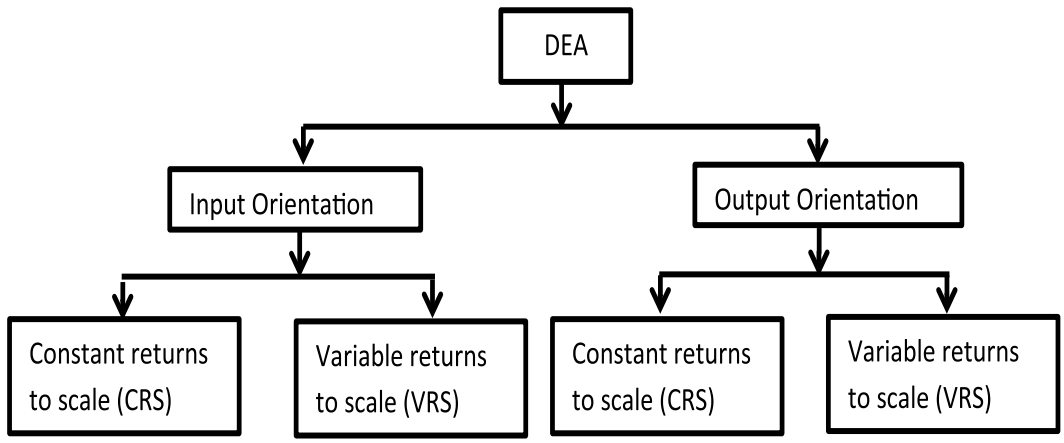
2.1 Concepts of DEA Approach

DEA is a non-parametric operation research approach, which is used to find out the efficiency of different homogenous firms known as Decision Making Units (DMU) where there are multiple inputs or outputs. Charnes, Cooper and Rhodes (CCR) formally developed DEA in 1978 assuming constant returns to scale (CRS) to measure technical efficiency through solving Linear Programming (LP) equation. In 1984, Banker, Charnes and Cooper (BCC) extended the original DEA model assuming variable returns to scale (VRS) to measure pure technical efficiency.

2.1.1 Orientations of DEA Approach

DEA entails two orientations; input-orientation and output orientation. Input-orientation involves minimizing inputs and producing observed level of outputs. On the other hand, output-orientation focuses on output maximization by consuming observed level of inputs. This study is based on input–orientation of DEA. With input-oriented DEA, the LP model is configured to determine how much the input usages of a firm could contract if used efficiently in order to achieve the same output level.

Figure – 1: Orientations and frontiers of DEA.



Source: Author's construction from the DEA concept.

2.1.2 Efficiency Measurement Applying DEA Approach

In this study, using DEA approach the following three efficiencies were attempted to measure

(i) Technical Efficiency,
(ii) Pure Technical Efficiency and
(iii) Scale Efficiency

(i) Technical Efficiency

It denotes the conversion of physical inputs into outputs relative to the best practice. In other words, given current technology, there is no wastage of inputs whatsoever in producing the given quantity of output. An organization operating at the best practice is said to be 100% technically efficient. If operating below the best practice levels, the organization's technical efficiency will be expressed as a percentage of the best practice. The input-oriented CCR model evaluates the technical efficiency of DMUj by solving the following LP function with the objective to minimize input for a given level of output.

Minimize θ***n*** with respect to $w_1, \ldots w_N$. θ*n* Subject to:

$$\sum_{j=i}^{N} w_j y_{ij} - y_{in} \geq 0 \qquad \text{Here, i = 1, 2, 3……. I}$$

$$\sum_{j=i}^{N} w_j x_{kj} - \theta_n x_{kn} \leq 0 \qquad \text{Here, k = 1, 2, 3……..... K}$$

$$w_j \geq 0 \qquad \text{Here, j = 1, 2, 3……..N}$$

Where there are *N* organizations in the sample producing *I* different outputs (*yin* denotes the observed amount of output *i* for organization *n*) and using *K* different inputs (*xkn* denotes the observed amount of input *k* for organization *n*). The *wj* are weights applied across the *N* organizations. When the n^{th} linear program is solved, these weights allow the most efficient method of producing organization *n*'s outputs to be determined.

(ii) Pure Technical Efficiency

The input-oriented BCC model evaluates the pure technical efficiency of DMUj by solving the following LP function. Min θ, Subject to:

$$\sum_{j=1}^{n} w_j x_i^j \leq \theta x_i^t; i = 1,2,3\ldots\ldots\ldots\ldots\ldots m$$

$$\sum_{j=1}^{n} w_j y_r^j \geq y_r^t; r = 1,2,3\ldots\ldots\ldots\ldots\ldots s$$

$$\sum_{j=1}^{n} w_j = 1;$$

$$w_j \geq 0, (j = 1,2,3\ldots\ldots\ldots\ldots\ldots\ldots n);$$

Where w_j=Weight of the j^{th} DMU, x_i^j = Value of the i^{th} input variables for j^{th} DMU, y_r^j = Value of the r^{th} output variables for j^{th} DMU, x_i^t = Value of i^{th} input variable for t^{th} DMU. m = Number of inputs, s = Number of outputs, n = Number of DMUs and θ = the value that signifies the efficiency of the DMU. The *j=l* equation is a convexity constraint, which specifies the VRS framework (Mostafa, 2010). Without this convexity constraint, the BCC model will be a CCR model describing a CRS situation.

(iii) Scale Efficiency

Based on the CCR and BCC scores, applying the following formula, scale efficiency is measured (Cooper *et al*., 2007).

$$Scale..Efficiency = \frac{Technical..Efficiency_{CCR}}{Pure..Technical..Efficiency_{BCC}}$$

If the scale efficiency is less than 1, the DMU will be operating either at decreasing returns to scale (DRS), then a proportional increase of all input levels produces a less-than-proportional increase in output levels or increasing return to scale (IRS) at the converse case.

2.2 Research Methodology

Measuring efficiency can be done in two ways either by use of traditional financial ratio analysis; or by the distance function approach whereby a firm's observed production point is compared to a production frontier which denotes best practice, and the distance between the two points provides a measure of technical efficiency. This approach leads to frontier estimation methods such as DEA and stochastic frontier analysis (Johnes, Izzeldin, and Pappas, 2012). In this research, DEA, a non-parametric research approach was applied to analyze collected data in order to meet the objectives of this study. DEA-solver software was used to analyze the data in two different phases considering different input-output variables. In order to measure the TE, input oriented DEA approach developed by CCR is used and to measure the PTE, input oriented DEA approach developed by BCC is used.

2.2.1 Collection of Data

This study is based on secondary data. Required data for this research have been collected from the annual reports and website of BB and respective Islamic banks. At present, there are total eight Islamic banks in Bangladesh, from these; seven banks were included in this study, and only Union Bank Limited was excluded from the study, as it is a new bank and thus there is no previous performance record for measuring efficiency.

Table # 1: List of Islamic Banks

SL No.	Name of Bank	Year of Incorporation	Listing Status	Year of Listing in Stock Market
1.	Islami Bank Bangladesh Limited (IBBL)	1983	Listed	1985
2.	ICB Islamic Bank Limited (ICBIBL)	1987	Listed	1990
3.	Al-Arafah Islami Bank Limited (AAIBL)	1995	Listed	1998
4.	Social Islami Bank Limited (SIBL)	1995	Listed	2000
5.	EXIM Bank Ltd. (EXIM)	1999	Listed	2004
6.	First Security Islami Bank Ltd. (FSIBL)	1999	Listed	2008
7.	Shahjalal Islami Bank Limited (SJIBL)	2001	Listed	2007
8.	Union Bank Limited (UBL)	2013	Unlisted	N/A

Source: Website of BB, April 2015.

2.2.2 Selection of Input-output Variables

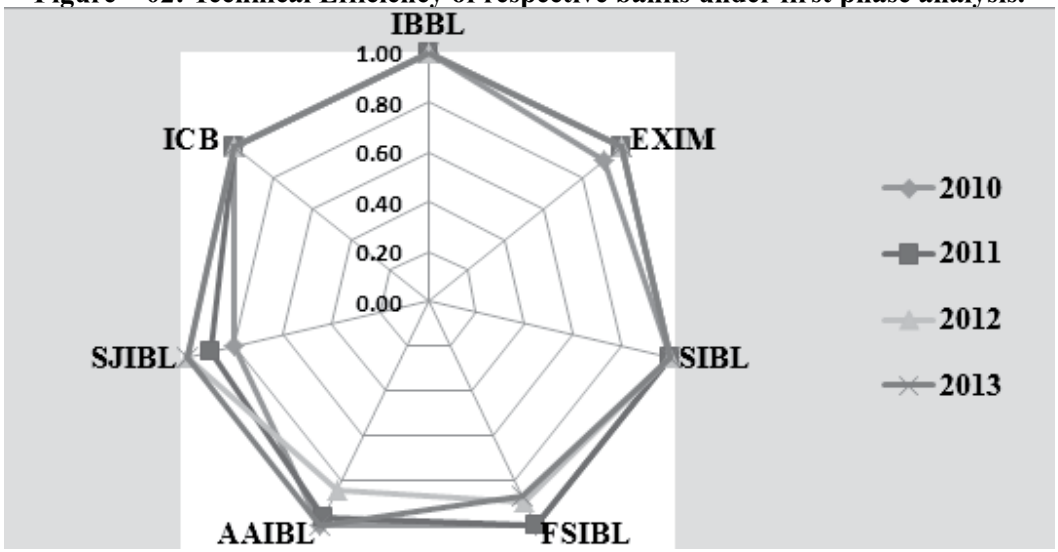
In the first phase of the analysis, profit paid on deposit and operating expenses were selected as the input variables. On the other hand, income from the investment and operating profit were selected as the output variables. In the second phase of the analysis deposit, fixed assets, number of branches, number of total employees, profit paid on deposit and operating expenses were selected as the input variables. Investment, income from the investment and operating profit were selected as the output variables.

3. ANALYSIS AND INTERPRETATION

3.1 Technical Efficiency

Table – 2 in appendices shows year wise average TE scores of Islamic banks where TE scores were 96%, 94%, 86% and 97% in the year 2010, 2011, 2012, and 2013 respectively. RTS of IBBL was constant during the study period, it was increasing in 2010 and decreasing from 2011 to 2013 in case of EXIM bank, in case of SIBL RTS was constant in 2010 and increasing from 2011 to 2013, in case of FSIBL RTS was constant in 2010, 2011, 2013 and increasing in 2012; in case of AAIBL RTS was increasing in 2010, 2012 and constant in 2011, 2013; in case of SJIBL RTS was constant in 2010, 2012, decreasing in 2011and increasing in 2013; in case of ICBIBL RTS was constant in 2010, 2011 and increasing in in 2012, 2013.

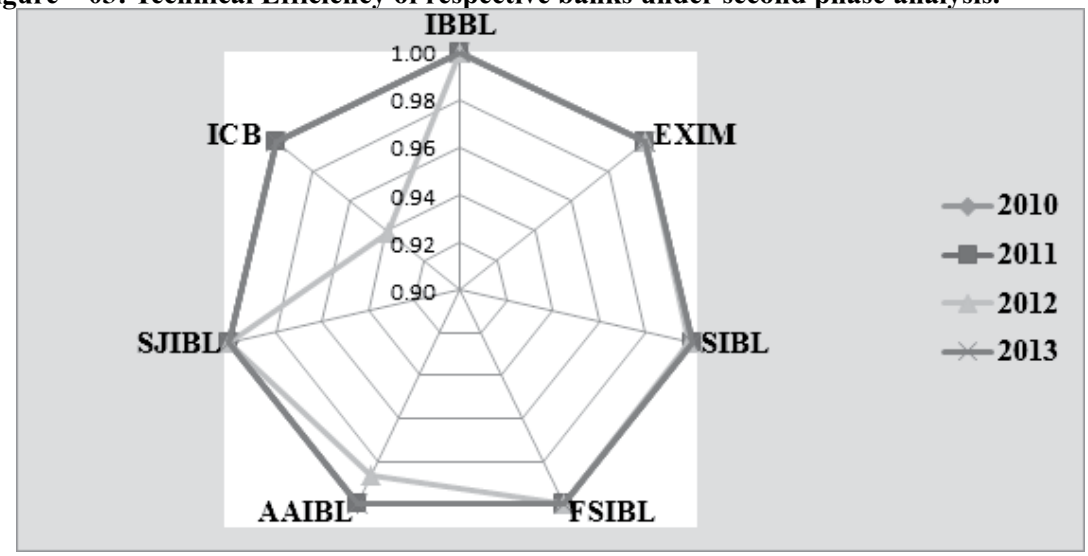
Figure – 02: Technical Efficiency of respective banks under first phase analysis.



Source: Author's construction from DEA result.

Figure - 2 shows DMU wise average TE score of first phase DEA analysis where IBBL was the best performer with 100% TE, followed by FSIBL with 98% TE, jointly followed by AAIBL and SJIBL with 96% TE, followed by SIBL with 91% TE, followed by EXIM bank with 88% TE, followed by ICBIBL with 84% TE for the study period 2010-2013.

Figure – 03: Technical Efficiency of respective banks under second phase analysis.



Source: Author's construction from DEA result.

Figure-3 presents result of DEA analysis in the second phase, which reveals that inclusion of some new variables change the result completely. If deposit, total assets, number of employees, profit paid on deposits, and operating expenses considered as the input variables; on the other hand investments, investment income, and operating income considered as the output variables, then DEA reveals that all the DMUs are technically efficient in all the periods of the study except in 2012 SIBL, AAIBL, and ICBIBL were technically inefficient.

3.2 Pure Technical Efficiency

Table - 3 shows DMU wise average PTE scores of the first phase DEA analysis where IBBL and ICBIBL were in the 100% PTE level, followed by AAIBL with 99% PTE, jointly followed by FSIBL and SJIBL with 98% PTE, followed by EXIM with 96% PTE, followed by SIBL with 93% PTE for the study period 2010-2013. During 2010-2013, PTE scores were 99%, 97%, 96% and 98% respectively and thus there were 1%, 3%, 4% and 2% pure technical inefficiency respectively.

3.3 Scale Efficiency

Table-3 also reveals that only IBBL was 100% efficient from the view point of SE, followed by FSIBL with 99% SE, jointly followed by SIBL and SJIBL with 98% SE, followed by AAIBL with 97% SE, followed by EXIM bank with 91% SE, and finally ICBIBL was the least efficient with 84% SE. On an average, scale efficiencies were 96%, 97%, 90% and 99% in 2010, 2011, 2012 and 2013 respectively. Thus there were 4%, 3%, 10% and 1% scale inefficiency in 2010, 2011, 2012 and 2013 respectively.

Figure – 2 reveals that only IBBL is on the efficient frontier regarding TE, PTE, SE and others none bank is on the efficient frontiers regarding TE and SE. However, ICBIBL is on the

efficient frontier only from the PTE, means efficient under VRS but very far from the efficient frontier regarding TE and SE. SJIBL, AAIBL and FSIBL are close to efficient frontier regarding TE, PTE and SE. On the other hand, SIBL and EXIM bank are very far from the efficient frontier regarding TE, PTE and SE.

4. MAJOR FINDINGS OF THE STUDY

Based on the above analysis and interpretation, following major issues have been found regarding efficiency of Islamic banks in Bangladesh.

- The mean efficiency scores of TE, PTE, and SE of selected Islamic banks are 0.93, 0.98 and 0.96 respectively, which indicate that the overall efficiency of Islamic banks in Bangladesh are very high and still there are 7%, 2% and 4% possibilities to improve TE, PTE, and SE respectively.
- Only IBBL is on the efficient frontier regarding TE, PTE, SE and no other bank is on the efficient frontiers regarding TE and SE.
- ICBIBL is on the efficient frontier only from the PTE, means efficient under VRS but very far from the efficient frontier regarding TE and SE.
- SJIBL, AAIBL & FSIBL are close to efficient frontier regarding TE, PTE and SE. SIBL and EXIM bank are very far from the efficient frontier regarding TE, PTE & SE.
- Analysis in the second phase reveals that inclusion of some new variables change the result completely.

5. RECOMMENDATIONS

Based on the findings of the study, researcher provides following suggestions to the different stakeholder of banking sector of Bangladesh.

- SIBL and ICBIBL operate at IRS, therefore these banks should invest more on input to improve output, which will lead closure to the efficient frontier.
- As IBBL and FSIBL operate at CRS, therefore these banks should sustain existing level of investment on input to withstand current output, which is to the efficient frontier.
- EXIM bank operates at DRS, therefore it should reduce invest on input to improve efficiency, which will lead closure to the efficient frontier.
- SIBL, AAIBL, and ICB Islamic banks must have to emphasis on efficient utilization of input and output variables in order to remove their present unstable efficiency and ensure stable efficiency.
- Conventional banks can convert their traditional banking mechanism into Islamic banking mechanism as this mechanism is permitted by Islamic Shariah and has proved high efficiency in the utilization of input-output variables.
- Bangladesh Bank, central bank of the country can encourage conventional banks to implement full-fledged Islamic banking due to higher efficiency of this type of banking.

6. CONCLUSION

The forgoing analysis reveals that outstanding result that all the Islamic banks are highly efficient regarding utilization of inputs and their outputs. Analysis in the first phase reveals that technical efficiency of all the Islamic banks is very high which are on an average 98 percent, 96 percent, 98 percent and 96 percent in the year 2010, 2011, 2012, and 2013 respectively. Analysis in the second phase reveals that inclusion of some new variables change the result completely. Including some more variables in the analysis of efficiency measurement process, study finds that all the Islamic banks are technically efficient in all the period of the study except in 2012 SIBL, AAIBL, and ICB Islamic banks which were technically inefficient. Therefore, it can be concluded that the AAIBL and ICB Islamic banks have to be more careful in utilization of input and output variables in order to improve technical efficiency. IBBL can be taken as reference or base by the other banks to adjust their input and output variables to improve their efficiency.

7. LIMITATIONS AND FURTHER SCOPE OF THE STUDY

This study attempted to measure the efficiency of Islamic banks only based on DEA approach, although there are alternative tools to measure efficiency. This study may be useful for the future researchers who will do research in this field and they can do this research applying Malmquist Productivity Index model, Cob Douglas model, and commonly used financial ratio analysis.

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APPENDICES

Table – 2: TE Scores & RTS for the first phase analysis.

DMU Name	**Input-Oriented CRS: Technical Efficiency (TE)**								Mean
	2010	RTS	2011	RTS	2012	RTS	2013	RTS	
IBBL	1.00	Constant	1.00	Constant	1.00	Constant	1.00	Constant	1.00
EXIM	0.80	Increasing	0.87	Decreasing	0.89	Decreasing	0.94	Decreasing	0.88
SIBL	1.00	Constant	0.78	Increasing	0.91	Increasing	0.96	Increasing	0.91
FSIBL	1.00	Constant	1.00	Constant	0.91	Increasing	1.00	Constant	0.98
AAIBL	0.90	Increasing	1.00	Constant	0.94	Increasing	1.00	Constant	0.96
SJIBL	1.00	Constant	0.93	Decreasing	1.00	Constant	0.91	Increasing	0.96
ICBIBL	1.00	Constant	1.00	Constant	0.39	Increasing	0.98	Increasing	0.84
Mean	0.96		0.94		0.86		0.97		0.93

Source: Author's calculation using DEA software.

Table # 3: PTE Scores, SE Scores & RTS for the first phase analysis.

DMU Name	Input-Oriented VRS: Pure Technical Efficiency (PTE)				DMU Wise Mean of PTE	Scale Efficiency (SE) = TE ÷ PTE				DMU Wise Mean of SE
	2010	2011	2012	2013		2010	2011	2012	2013	
IBBL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
EXIM	0.95	1.00	0.90	1.00	0.96	0.84	0.87	0.99	0.94	0.91
SIBL	1.00	0.79	0.96	0.97	0.93	1.00	0.99	0.95	0.99	0.98
FSIBL	1.00	1.00	0.93	1.00	0.98	1.00	1.00	0.98	1.00	0.99
AAIBL	1.00	1.00	0.96	1.00	0.99	0.90	1.00	0.98	1.00	0.97
SJIBL	1.00	1.00	1.00	0.91	0.98	1.00	0.93	1.00	1.00	0.98
ICBIBL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.39	0.98	0.84
Year wise Mean	0.99	0.97	0.96	0.98	0.98	0.96	0.97	0.90	0.99	0.96

Source: Author's calculation using DEA software.

Table – 4: Technical Efficiency Scores & RTS for the second phase analysis.

DMU Name	**Input-Oriented CRS: Technical Efficiency**							
	2010	RTS	2011	RTS	2012	RTS	2013	RTS
IBBL	1	Constant	1	Constant	1.000	Constant	1	Constant
EXIM	1	Constant	1	Constant	1.000	Constant	1	Constant
SIBL	1	Constant	1	Constant	0.999	Increasing	1	Constant
FSIBL	1	Constant	1	Constant	1.000	Constant	1	Constant
AAIBL	1	Constant	1	Constant	0.987	Increasing	1	Constant
SJIBL	1	Constant	1	Constant	1.000	Constant	1	Constant
ICBIBL	1	Constant	1	Constant	0.939	Increasing	1	Constant

Source: Author's calculation using DEA software.

Table-05: Data sets of input-output variable of respective banks. (All figures are in BDT and in million except no. of branch and no. of staff)

DMUs		Input Variables						Output Variables		
		Deposit	Total Assets	Profit Paid on Deposit	Operating Expense	Branch No.	No. of Staff	Investments	Investment Income	Operating Income
IBBL	2010	291,937	330,785	14,472	6,087	251	10,349	275,196	24,766	15,657
EXIM	2010	94,949	113,071	6,020	1,810	59	1,686	98,889	9,606	7,704
SIBL	2010	44,850	55,169	5,436	1,328	64	1,252	39,730	3,886	4,515
FSIBL	2010	56,344	63,620	4,126	882	66	929	54,983	5,547	2,085
AAIBL	2010	54,093	75,374	3,134	1,329	78	1,711	55,662	4,244	4,489
SJIBL	2010	62,964	78,800	4,658	1,322	63	1,521	63,669	6,417	4,851
ICBIBL	2010	13,594	18,642	276	565	33	679	13,918	703	506
IBBL	2011	341,855	389,376	18,401	7,292	266	11,465	321,643	32,020	20,123
EXIM	2011	107,881	129,874	9,358	2,488	62	1724	107,353	13,123	6,444
SIBL	2011	66,853	84,406	6,795	1,805	76	1375	59,150	6,922	4,905
FSIBL	2011	78,145	90,957	6,671	1,146	84	1342	73,444	8,748	2,736
AAIBL	2011	82,447	103,519	5,543	1,469	88	1,807	77,063	8,974	5,124
SJIBL	2011	83,350	107,229	7,376	1,633	73	1,624	85,884	10,108	4,630
ICBIBL	2011	12,619	18,015	338	536	33	686	14,233	884	566
IBBL	2012	417,846	482,665	25,870	8,746	276	12,188	398,481	43,672	24,344
EXIM	2012	140,025	166,998	12,229	2,823	72	1909	129,705	17,322	8,117
SIBL	2012	93,594	115,166	7,542	1,897	86	1625	82,169	11,319	5,515
FSIBL	2012	109,906	129,733	10,310	1,793	100	2090	101,218	13,340	3,735
AAIBL	2012	119,380	146,335	9,576	2,119	100	2,110	106,765	14,119	6,523
SJIBL	2012	102,177	132,823	11,170	1,822	84	1,881	101,347	15,242	6,269
ICBIBL	2012	12,381	15,119	414	581	33	688	11,220	906	646
IBBL	2013	472,122	549,979	30,900	11,065	286	12,980	472,704	48,145	25,346
EXIM	2013	165,392	195,542	15,423	3,331	80	2229	156,446	20,476	8,284
SIBL	2013	102,104	126,617	9,707	2,578	94	1802	94,461	13,629	5,503
FSIBL	2013	139,521	161,823	14,598	2,384	117	2367	121,597	18,278	4,410
AAIBL	2013	141,705	170,936	12,052	2,548	110	2,387	127,827	16,989	6,763
SJIBL	2013	96,481	121,963	10,578	2,338	92	2,173	85,707	13,615	5,031
ICBIBL	2013	11,970	14,303	423	584	33	656	9,999	642	324

Source: Annual reports and websites of the respective banks.