International Journal of Business and Technopreneurship
Volume 6, No. 2, June 2016 [299-308]

Determinates of Banks' Profitability: A Study on Islamic Banks in Bangladesh

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ABSTRACT

Banks and financial institutions are the heart of the economy of a country. Though Bangladesh is a developing economy, a significant number of financial institutions are in operation now in the country. The present study tried to find out the factors that determine the profitability of Islamic banks in Bangladesh. For the purpose of the study, five Islamic Banks in Bangladesh have been taken as the samples. Only the internal factors of banks' profitability have been taken into consideration in this study. Profitability has been measured in terms of Return on Equity (ROE) and Return on Asset (ROA). In model I the findings indicate that asset management has a significant impact on the profitability of Islamic banks in Bangladesh. On the other hand, price earnings ratio and bank size are negatively correlated in terms of Return on equity with the profitability of Islamic banks in Bangladesh. Capital adequacy ratio and operating efficiency are positively correlated with the profitability of Islamic banks. On the other hand in model II it was found that price earnings ratio, operating efficiency and bank size are negatively correlated with return on equity in terms of profitability of Islamic banks in Bangladesh. But asset management and capital adequacy are positively correlated with Return on Equity in terms of profitability of Islamic banks.

Keywords: Islamic bank, Profitability, Return of Assets, Return of Equity and Bangladesh.

1. INTRODUCTION

Islamic finance has grown rapidly since it first emerged in the 1970s (Hassan 1999). Its expansion is so vast that it occupies a significant portion of world investment amounting USD750 billion and is expected to hit USD1 trillion (Hassan 1999). Nearly 300 Islamic financial institutions are in operation all over the world. Based on the studies of Asian Banker Research Group, the global Islamic industry has an average growth of 15% to 20% annually. The World's 100 largest Islamic banks have set an annual asset growth rate of 26.7% (Hassan

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1999). The scenario of Islamic banks in Bangladesh is not different from the rest of the world. More than 50 banks are in operation in the country now. Among them, eight banks are operating on the basis of Islamic shariah (Sarker 1999).

In Islamic banking system, operations are quite different from that of the conventional banking system. Here, the main concentration is given on the Islamic principles that always call for an equitable society. Moreover, the rate on returns for different types of investments that have banks consider are variable. Islamic banks maintain a standardized system to project evaluation and appraisal, determination of profit sharing ratios, and the establishment of a procedural frame work for the processing, monitoring, supervision, and auditing of various projects. On the liability side, banks collect deposits from the depositors by showing the dividends rather than the interest rates.

Though Islamic banking is in rise in Bangladesh, there are a few studies, if any, about the profitability of Islamic banking. From that ground the present study has been undertaken. The objective of this study is to investigate the determinants of profitability of the Islamic banks in Bangladesh, particularly focusing on the internal factors.

1.1 The Beginning of Islamic Banking in Bangladesh

Bangladesh hereditarily has an interest based banking system right from the British period, when the employment of the Muslims in banks was prohibited by the government. After that Bangladesh was a part of Pakistan for 24 years within the period of 1947-1971. Consequently, the banking system came under the Muslim control; however, the system did not change. Since independence, Bangladesh developed its own trend in Islamic banking both at home and abroad. Islamic Development Bank (IDB) established many of the Islamic Banks all over the world during the seventies (Sarkar 2000). Subsequently, two professional bodies, namely, "Islamic Economics Research Bureau" (IERB) and "Bangladesh Islamic Bankers Association" (BIBA) were formed in Bangladesh (Sarkar 2000).

The overall banking system of Bangladesh consists of different types of banks working as Nationalized Commercial Banks (NCBs), Private Banks, Foreign Banks, Specialized Banks and Development Banks. Among them, Islamic banks have been operating in Bangladesh since 1983, when Islamic Bank Bangladesh was established to ensure the goal of providing banking system based on 'Shariah' alongside the traditional banks (Sarkar 2000).

In Bangladesh, Islamic banks have been functioning for more than thirty years along with the conventional banks. Among more than 50 banks, only eight Islamic banks are functioning in Bangladesh, namely, Islami Bank Bangladesh Limited (IBBL), Al Baraka Bank Bangladesh Limited (AL-Baraka), Al-Arafah Islami Bank Limited (Al-Arafah), Social Islami Bank Limited (SIBL), Shahjalal

Islamic Bank Ltd., EXIM Bank Ltd, ICB Islamic Bank Ltd., and First Security Islmai Bank Ltd. Besides these Islamic banks, some conventional banks have also established branches based on Islamic Banking philosophy.

2. LITERATURE REVIEW

Profitability is considered as one of the important factors in the literature of finance and banking from as early as 70s. There are a number of early studies on the determinants of bank profitability. Research works on the determinants of bank profitability started in 1979 as Short (1979) made an endeavor to measure the relationship between profitability and banking operation. (Short 1979) included scarcity of capital as a determinant of profitability. After conducting the study, he strongly supported that banks' profitability depends on these internal factors. Short used both central bank discount rates and the interest rates on long-term government securities. He found that these variables have positive relationship with the profitability. (Bourke 1989) advanced the study to a great extent by identifying the determinants into two groups' namely internal and external factors of profitability. The study of (Bourke 1989) was the first to divulge that internal factors can affect the profitability of banks. The author used capital ratios, staff expenses and liquidity ratios as the internal variables for measuring the profitability of banks. Bourke (1989) found that bank profitability is positively related with the internal variables. These findings were later supported by (Molyneux and Thornton 1992).

Some of the recent studies, e.g.,(Athanasoglou, Brissimis et al. 2008) classified the determinants of bank profitability into three specific aspects: bank-specific, industry-specific and macroeconomic determinants of bank profitability. However, most of the other scholars classified those into internal and external determinants. An internal determinant of profitability consists of the variables that are included in the financial and non-financial statements. Banks can control the internal determinants. The external determinants of profitability consists of inflation, government policies, taxes, competition, bank management, scarcity of capital, and other external factors normally beyond the control of the banks.

(Bashir 2003) conducted a study on the determinants of profitability in Islamic Banks. It was a cross country analysis of banks' profitability for a five year period. Return on assets and Return on equity were used as the dependent variables. Regression model was used to analyse the data and it showed that profitability is positively affected by loan ratios and capital. However, (Hassan Al-Tamimi 2006) did a comparative study of the determinants of banks' profitability in United Arab Emirate between National and Foreign banks for the period 1987-2002. It was found in the study bank portfolio management and bank size were statistically significant to influence return on assets and return on equity for the National banks performance.

(Akhavein, Berger et al. 1997) reveals that there is a positive and significant relationship between size and bank profitability. (Boyd and Runkle 1993) found that the large size of the institution may result in economies of scale which in turns may reduce the costs of gathering and processing information. (Berger, Hanweck et al. 1987), (Miller and Noulas 1997), and (Athanasoglou, Brissimis et al. 2008) showed that few cost savings can be achieved by increasing the size of banking firm. (Athanasoglou, Delis et al. 2006) and (Amel, Barnes et al. 2004) suggested that the effects of the bank size on profitability may be positive up to a certain limit and beyond that point it could be negative due to various factors such as the sample country selected and period of study. Therefore, the relationship between the bank size and its profitability is expected to be uncertain due to the difference in various factors.

In Bangladesh, (Hassan 1999) examined performance of Islamic Bank Bangladesh Limited and made a comparison with the other private banks in Bangladesh. Findings of the study revealed that the result showed that Islamic Bank Bangladesh Limited was doing better than that of the private banks in terms of deposit growth and investment growth. But the study didn't use any statistical instrument to prove the results (Samad and Hassan 2000). In Pakistan case, (Javaid, Anwar et al. 2011) found that higher total assets may not necessarily lead to higher profits due to the diseconomies of scale and higher loans contribute towards profitability but their impact is not significant. Also it is found that equity and deposits have significant impact on profitability.

3. METHODOLOGY

The present study aims to investigate the profitability of Islamic banks in Bangladesh. For the purpose of the study, panel data were collected from the annual reports of five leading Islamic banks in Bangladesh for the period 2008-2012. The total number of observations for the study was 35, which was drawn from the annual reports of the respective banks. The financial data of the banks were used to estimate the values of variables. Return on assets (ROA) and return on equity (ROE) are widely used in the literature to measure financial performance (Berger 1995); (Naceur and Goaied 2001); (Williams 2003); (Kosmidou 2008); (Siddiqui 2008); (Sufian and Habibullah 2009). Based on the literature review, following explanatory variables data: Banks' Size, Asset management, Capital Adequacy, pricing and Operating Efficiency, are collected for the same five year period. Pearson correlation was used to see the relationship among the variables. Multiple regression models were used to find out which factors significantly contributed to profitability of banks.
To achieve the objectives of this study, the following Regression models have been used.

Model (I): Return on Equity (ROE)

$$ROA\ (Y_1) = \beta_0 + \beta X_1 + \beta X2 + \beta X_3 + \beta X_4 + \beta X_5 + \epsilon_0 \quad (1)$$

Model (II): Return on Asset (ROA)

$$ROE\ (Y2) = \beta_0 + \beta X_1 + \beta X2 + \beta X_3 + \beta X_4 + \beta X_5 + \epsilon_0 \quad (2)$$

Where, X_1 = Bank's size, X_2 = Asset Management, X_3 = Operating Efficiency Ratio, X_4= Capital Adequacy Ratio, X_5= Pricing, β_0= constant, ϵ_0 = error

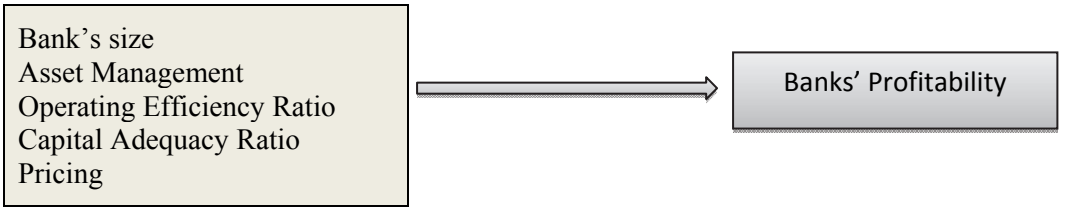

Figure 1: Research Framework (Authors own creation)

4. FINDINGS

4.1 Pearson Correlation statistics

Correlation analysis was conducted to determine the degree and direction of relatedness between constructs used in the present study. As shown in the table, the degree of relatedness between independent and dependent variables are somewhat different. Bank size and price earnings ratio are negatively related to return on equity. And asset management, operating efficiency and capital adequacy are positively related to the return on equity.

Table 4.1: Correlation Statistics for Model I

No	Variables	Mean	St. Deviation	1	2	3	4	5	6
1	Size of bank	5.0209	.3203	1					
2	Asset management	.0817	.0420	-.042	1				
3	Operating efficiency	.0454	.0384	.497	.214	1			
4	Capital adequacy	11.4396	1.5441	.170	.265	.029	1		

5	Price	12.4004	4.3398	-.187	-.516	-.391	-.504	1	
6	ROE	18.2592	6.2013	-.237	.660	.012	.254	-.396	1

The results of Pearson Correlation test for both of the models exhibit (Table 1 and 2) the absence of multicollinearity problem among the variables. Thus it can be said that all of the independent variables are free from the interdependency. Some of the independent variables are negatively correlated with the dependent variables.

Table 4.2: Correlation Statistics for Model II

No	Variables	Mean	St. Deviation	1	2	3	4	5	6
1	Size of bank	5.0209	.3203	1					
2	Asset management	.0817	.0420	-.042	1				
3	Operating efficiency	.0454	.0384	.497	.214	1			
4	Capital adequacy	11.4396	1.5441	.170	.265	.029	1		
5	Price	12.4004	4.3398	-.106	-.516	-.391	-.504	1	
6	ROA	1.7720	.6185	-.304	.348	-.094	.090	-.106	1

4.2 Regression Analysis Output for Model I

Table 4.3: ROE as Dependent Variable

Independent Variables	Beta	T value	significant
Size of bank	-.225	-1.151	.264
Asset management	.579	2.999	.007
Operating efficiency	-.048	-.230	.820
Capital adequacy	.082	.416	.682
Price	-.117	-.510	.616

R-*square* = .502
Adj R-*square* = .371
Durbin-Watson = 1.505

Table 3 presents the regression results of Model I where Return on Equity has been used as dependent variable. The resulted value of R square is .502 that indicates that the dependent variable ROE is influenced by the independent variables by approximately 50% and the remaining 50% by the other variables that have not been considered in the study. The relationship between asset

management ratio and Islamic banks' profitability is positive and the coefficient is statistically significant at 5% level of significance. Other independent variables like size of the bank, operating efficiency, capital adequacy and price earnings ratio were found to statistically insignificant. Though some previous studies supported these variables as significant, the present study found them insignificant that needs to be investigated in further studies.

4.3 Regression Analysis Output for Model II

Table 4.4: ROA as Dependent Variable

Independent Variables	Beta	T value	significant
Size of bank	-.291	-1.181	.252
Asset management	.345	1.419	.172
Operating efficiency	-.004	-.015	.988
Capital adequacy	.076	.307	.762
Price	.054	.188	.853
R-*square* = .210			
Adj R-*square* = .002			
Durbin-Watson = 1.701			

Table 4.4 presents the regression results of Model II where Return on Asset has been used as dependent variable. The resulted value of R square is .210 that indicates that the dependent variable ROA is influenced by the independent variables by approximately 21% and the remaining 79% by the other variables that have not been considered in the study. The relationship between asset management ratio, operating efficiency, price earnings ratio, capital adequacy and Islamic banks' profitability is positive but the coefficient is not statistically significant at 5% level of significance. Though some previous studies supported these variables as significant, the present study found them insignificant that needs to be investigated in further studies.

5. CONCLUSION

Banks and financial institutions are the heart of the economy of a country. Though Bangladesh is a developing economy, a significant number of financial institutions are in operation now in the country. Islamic banks are among some of them contributing hugely to the economy of Bangladesh. Five Islamic banks have been taken as the samples for analysing the profitability in the context of Bangladesh. In model I the findings indicate that asset management has a significant impact on the profitability of Islamic banks in Bangladesh. On the other hand, price earnings ratio and bank size are negatively correlated in terms of Return on equity with the profitability of Islamic banks in Bangladesh. Capital adequacy ratio and operating efficiency are positively correlated with the

profitability of Islamic banks. On the other hand in model II it was found that price earnings ratio, operating efficiency and bank size are negatively correlated with return on equity in terms of profitability of Islamic banks in Bangladesh. But asset management and capital adequacy are positively correlated with Return on Equity in terms of profitability of Islamic banks. Due to some limitations, the paper couldn't address all the issues like, the inclusion of all Islamic banks in study samples, external factors as determinants of profitability and shortage of time, unavailability of required materials were the bars to do an extensive research. However this research will pave the ways for the future researchers to create a new horizon of knowledge in the field of profitability analysis of Islamic banks in Bangladesh. Despite these limitations, the findings of this study would be a valuable contribution to the body of knowledge for the policymakers, industry leaders, as well as bank managers with regard to attaining optimal utilization of capacities, improvement in managerial expertise, efficient allocation of scarce resources, and most productive scale of operation of the banking industry of Bangladesh. From the policymakers' point of view, the findings of this study may help them facilitate future directions for sustainable and competitive banking operations in Bangladesh. The findings may also help bank managements to figure out on ways to further improve their bottom line consequences.

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