

PERFORMANCE ANALYSIS OF SELECTED LOCAL PRIVATE COMMERCIAL BANKS IN BANGLADESH

Kazi Naim Morshed¹

Abstract

Performance of private commercial banks (PCBs) in Bangladesh depends on some internal and external factors such as bank size, risk management, overhead cost, capital, ownership of the bank, interest rate spread, bank expenses, inflation, central bank interest rate, GDP, taxation, variables that represents market characteristics (e.g. market concentration, industry size and ownership status etc) on the performance of the bank. This paper uses a multi-criteria, performance based index to rank 27 PCBs operating in Bangladesh. Total profit (TP), return on asset (ROA), return on equity (ROE), and labor productivity (LP) for the year ended 2012 have been considered as pillars of the performance based index. After construction of performance index the hypothesis that there is a relationship between bank performance and bank size is tested through regression analysis. It is found that there is significant positive correlation between bank size and their performance.

Keywords: *performance ROA, ROE, Labor productivity, bank size, performance factors, loan, performance index*

1. Introduction

Banking system of Bangladesh comprises of four nationalized commercial banks (NCBs), twenty eight conventional private commercial banks (PCB), seven islami shariah based PCBs, nine foreign banks and four specialized banks (Bangladesh Bank (BB)). NCBs are dominating the banking sector in terms of deposit size, asset and number of branches. Therefore, their performance is expected to be better than that of PCBs. But NCBs are losing their market share to private commercial banks to a large scale and to foreign bank to a lesser extent because of directed lending, weak standard of corporate governance and under-developed risk management system etc. (Fitch Report, 2009). Islam et al. (2014) identified lack of corporate governance and presence of undue political pressure in loan disbursement as the major problems of NCBs. Jahangir & Haq (2005) stated that inadequate infrastructure, obsolete technology, conventional managerial approaches contributed to the depressing performance of NCBs.

¹ Kazi Naim Morshed is Assistant Vice President at Mutual Trust Bank Ltd.

Banking system of Bangladesh faces the challenge of reducing interest rate spread & non-performing loan, improving asset quality, increasing profitability, maintaining adequate provisioning for loan losses and strengthening capitalization. It was observed that interest rate spread (IRS) in Bangladesh is considerably higher than many other countries. Higher IRS indicates lack of risk management skill and practice, high level of non-performing loan etc. However, as competition increases average interest rate spread of banking sector is going to achieve regulatory target of 5% in recent years. From liberation to till late 1990s, a huge amount of non-performing loan mounted up due to political pressure, inefficiency, directed credit and corruption. Until 2011, classified loans were in declining trend. Then it shows an increasing trend. The new stricter loan classification and provisioning regulations of Bangladesh Bank in 2012 are considered as major cause of rising tendency of classified loans. As a result, bank performance in terms of ROA and ROE is deteriorated. In addition, the rising capital adequacy ratio of the banking sector of Bangladesh declines slightly (Financial stability report of BB, 2012).

As stated earlier, NCBs are losing share to PCBs to larger extent which indicates that PCBs are performing better in terms of different performance indicators. Obviously not all PCBs are attaining the same profit. It depends on some internal and external factors. Bank size is one of them. It may be argued that generally large banks show better performance. Hence, it will be interesting to see whether there exist correlation between bank size and profitability. This paper mainly tries to find out the degree to which there is a correlation between performance and bank size (total assets) in the private commercial banking industry of Bangladesh. The paper uses a multi-criteria, performance based index to rank the private commercial banks operating in Bangladesh. Total profit (TP), return on asset (ROA), return on equity (ROE), and labor productivity (LP) are considered as pillars of the performance based index.

Literature review is discussed in the next section. The methodology is explained in section three. Before conclusion the empirical results have been discussed.

2. Literature Review

Like other business, profitability is the key factor for the existence of banking business. Profitability performance indicates the success of bank management. Labor productivity, ROA, ROE are some widely accepted indicators to measure bank performance. Among them, ROA and ROE are the important indicators of bank's profitability. Both indicators show net profit earned per dollar of asset and equity respectively. They indicate the efficiency of bank management in terms of profit generation. Literature (e.g. Venkartraman and Ramanujam, 1986) distinguishes bank performances into three types: financial, business and organizational. Financial performance includes ROA, ROE and earning per share (EPS). Chang et al. (2010) considers ROE as the most important and a representative indicator among all traditional indicators. Bank performance can be expressed as a function of internal and external determinants. Internal determinants of bank profitability

applied in literature are bank size, risk management, capital, ownership of the bank, interest rate spread, bank expenses etc. External determinants of bank profitability employed in study are inflation, central bank interest rate, GDP, taxation, variable that represents market characteristics (e.g. market concentration, industry size and ownership status etc).

Study shows that in the 70s and 80s, labor efficiency of American banks was lower than that of banks in Japan and other industrialist countries (Choi and Tschoegl 1984, Hunter and Timme 1990). Before that, i.e. in 60s, the result was opposite (Kaufman, 1970). American banks required less labor to produce same financial service than that of Japanese banks. This exposes that they had a better economies of scale earlier. Experience reveals that the impetus for merger and acquisition among banks was the cost saving which, in essence, helped them to attain economies of scale. Demircuc-Kunt and Maksimovic (1998), Akhavein et al. (1997), Smirlock (1985) found a positive and significant relationship between bank size and profitability. Big banks usually disburse big amount of loans and advances and invests in non-traditional business, thus, earn higher revenue. Hunter and Timme (1986) point out that there is a positive relationship for size of bank assets and non-traditional banks profit.

While some study shows a positive relationship between bank size and profit, other shows that profitability actually depends on bank size to a certain limit. For example, economies of scale do exist in the industry where bank asset size is less than USD100 million. Beyond that, efficiency decreases (Berger and Humphrey, 1993). Allen and Rai (1996), Hameetmam et al. (2000) find better economies of scale for smaller banks. In other words, there is a negative relationship between bank size and bank profit.

2.1 Literature on internal factors except bank size that affect bank performance

Apart from bank size, other internal determinants of bank performance are risk management, interest rate margin, capital, bank expenses etc.

It is expected that bank's profit may increase with the increase of loan to total asset ratio. This ratio can be treated as a proxy variable for risk which has a positive effect on the profitability (Abreu and Mendes, 2002). That means, bank loans (can be explained as risk) have a positive impact on its profit (Naceur, 2003). Some study find negative and significant relationship between the level of risk and profitability (Bourke, 1989, Molyneux and Thornton, 1992). Staikouras & Wood (2003) also find negative impact of higher loan ratio to negative profit. A big chunk of unpaid loan may be the cause of these results. Thus, poor risk management causes banks to have lower profit in their basket.

Besides, if interest rate margin becomes narrow and loan loss provision happens to be higher, the profitability of the bank will go down. Therefore, interest rate spread and the quality of loan matters more significantly than loan size (Vong, 2005). Therefore, those banks are better performed banks, which have higher net interest margin and stable growth

rate (Hashlem et al. 1983). These banks also do better by controlling their non-interest expenses. Samuelson (1945) also expressed the same view that banks gain more by raising the interest rate. On the contrary, it may reduce bank profit and increase the risk (Silverberg, 1973)

Chang et al. (2011) explores the impact of interest spread on the profitability of bank in Taiwan with different capital size. In order to find the relationship, they have divided banks into four capital groups. They found positive relationship between bank profit and loan-deposit interest spread for the 3rd capital group. For the other three groups, the result is negative. Their study also reveals that ROE is positively correlated with net commission income, net interest income and net non-operating income.

Capital is another internal determinant of bank performance which is considered as the best single indicator of measuring bank's strength and performance. Olalekan and Adeyinka (2013) found positive relationship between capital and bank performance. A well capitalized bank may not require external funding, which reduces its cost of funding and results in higher profitability. In extreme cases of severe credit default, capital works as cushion if a bank fails to meet its losses from loan loss provision. Therefore, capital can be treated as the symbol of bank's soundness and safety.

Apart from the factors mentioned above, bank expenses also play important role in determining bank's profitability. An efficient bank management always tries to keep its level of expenditure at an optimum level by adopting advance technologies in communication, information and financial technologies. As a result, cost-to-income ratio reduces and profitability of the bank increases. Almazari (2014) found negative relationship between cost-to-income ratio and profitability.

2.2 Literature on external factors that affect bank performance

External determinants of bank profitability as mentioned earlier are inflation, central bank interest rate, GDP growth, ownership status etc.

Inflation generally reduces the real income of the bank. If expected inflation can be anticipated correctly, bank gets opportunity to adjust the interest rate accordingly, in order to boost the revenue quicker than cost, with a positive impact on profitability. Thus, exact anticipation of expected inflation has a positive impact on profitability of the bank. While Hefferman and Fu (2008) found positive relationship between inflation rate and profitability, Hong and Razak (2015), however, found that inflation rate has no significant impact on profitability.

GDP growth also positively affects bank performance. During economic boom, banks earn more by disbursing more loans and advances and thus acquire higher economic profit. Hong and Razak (2015) found that nominal GDP affects profitability positively.

If central bank eases monetary policy by lowering interest rate, bank can disburse more

loans and advances and results in higher profitability. Adrian and Shin (2009) found that low short term interest rate improves banks' profitability.

Ownership of the bank, another external determinant, can influence the performance of the bank. It is expected that private-owned banks do better than state-owned banks. In his study, Kiruri (2013) claimed that government ownership had significant negative effects on bank profitability or efficiency, while domestic and foreign ownership had significant positive effects on bank profitability.

3. Data and Methodology

3.1 Sample and data

The data set in this study includes 27 private commercial banks namely Islami Bank Limited, Eastern Bank Limited, Dutch Bangla Bank Limited, Prime Bank Limited, Shajalal Islami Bank Limited, EXIM Bank Limited, Al-Arafah Islami Bank Limited, Standard Bank Limited, Social Islami Bank Limited (SIBL), Southeast Bank Limited, One Bank Limited, National Credit and Commerce Bank Limited (NCC), AB Bank Limited, Pubali Bank Limited, Bank Asia Limited, Uttara Bank Limited, Mercantile Bank Limited, Jamuna Bank Limited, Dhaka Bank Limited, National Bank Limited, First Security Bank Limited, Premier Bank Limited, The City Bank Limited, Mutual Trust Bank Limited (MTB), Brac Bank Limited and Trust Bank Limited.

Data set includes profit after provision and before tax or total profit (TP), profit after tax (PAT), size of the bank or total assets (TA), total equity (TE) and total revenue (TR). TR is the sum of total interest income and total non-interest income. In case of shariah-based bank, this is the sum of investment income and non-investment income. Data for TP, PAT, TA, TE and TR have been gathered from the financial statement for the year 2012 as on 31st December. Total number of employees of stated banks for the same year has been taken from the annual report of that year.

3.2 Methodology

Based on the information, return on asset (ROA), return on equity (ROE) and labor productivity (LP) are calculated. ROA is calculated by dividing PAT by TA, ROE is found by dividing PAT by TE, LP is found by slashing TR by the total number of employees. As data for the particular date have been considered for the analysis, instead of return on average asset (ROAA) and return on average equity (ROAE); ROA and ROE have been considered.

Towards construction of performance index, relative value of TP, ROA, ROE and LP are found. Relative value is obtained by dividing the value of a variable of an individual bank by the sum of values of that variable of all banks. The sum of all relative values of a particular bank is multiplied by 100 to calculate the score of that bank. Score of each bank

is divided by the highest score to find the performance index. The index value ranges from zero to one where zero indicates the lowest performance and one indicates the highest. After construction of performance index the hypothesis that there is a correlation between bank performance and bank size was tested through regression analysis.

Empirical Results

Table 1: Performance Index of Selected Private Commercial Bank, 2012 (BDT Million)

Rank	Index	Bank Name	Size	Total Profit	ROA	ROE	LP
1	0.9999	Islami Bank	482,649.49	12,237.18	0.0116	0.1416	4.15
2	0.8919	Eastern Bank	147,148.00	4,369.61	0.0163	0.1387	13.26
3	0.7971	Dutch Bangla	155,918.60	4,817.10	0.0148	0.2132	3.46
4	0.7880	Prime Bank Limited	236,833.00	5,335.09	0.0114	0.1298	10.20
5	0.7874	Shajalal Bank	133,900.01	3,584.26	0.0130	0.1807	9.45
6	0.7311	EXIM Bank	166,997.92	3,613.89	0.0125	0.1259	10.66
7	0.7177	Al-Arafah Islami	149,320.36	3,944.09	0.0130	0.1385	7.91
8	0.6742	Standard Bank	93,895.97	2,472.89	0.0133	0.1521	7.91
9	0.6713	SIBL	114,829.11	2,772.15	0.0128	0.1443	8.06

10	0.6318	Southeast Bank	189,921.58	3,603.83	0.0087	0.0833	11.51
11	0.6308	One Bank Bank	84,592.20	2,125.24	0.0132	0.1532	6.48
12	0.6107	NCCBL	126,068.22	2,814.91	0.0115	0.1194	7.54
13	0.6106	AB Bank limited	175,517.13	3,496.26	0.0083	0.0902	10.49
14	0.6099	Pubali Bank	192,947.92	6,135.80	0.0091	0.0992	3.10
15	0.5368	Bank Asia Limited	141,235.37	2,681.01	0.0060	0.0648	12.16
16	0.5208	Uttara Bank	123,790.62	2,549.23	0.0100	0.1329	3.84
17	0.4906	Mercantile Bank	154,147.70	2,377.44	0.0089	0.1247	4.13
18	0.4876	Jamuna Bank	109,678.50	2,200.81	0.0095	0.1251	3.86
19	0.4871	Dhaka Bank	133,616.09	1,594.08	0.0059	0.0806	11.14
20	0.4697	National Bank	204,613.86	3,258.20	0.0070	0.0640	6.65
21	0.4665	First security	129,937.80	1,503.21	0.0059	0.1335	6.74

22	0.3553	Premier Bank	81,805.03	920.18	0.0074	0.0844	4.48
23	0.3506	The City Bank	130,313.87	1,815.90	0.0061	0.0440	5.94
24	0.3366	MTBL	93,162.05	818.82	0.0035	0.0678	7.98
25	0.2980	Brac Bank Limited	180,396.13	2,176.11	0.0039	0.0610	3.03
26	0.2626	Trust Bank	96,339.25	951.95	0.0019	0.0267	7.96
27	0.1934	IFIC Bank Limited	114,772.95	1,462.00	0.0004	0.0060	5.86

After regression analyses following results have been found:

Table 2 : Model Summary

R	R Square	Adjusted R Square
<i>0.531</i>	<i>0.282</i>	<i>0.254</i>

Table 3 : Coefficients

		t	P value
Constant		<i>4.776</i>	<i>0.000</i>
Bank Size	0.531	<i>3.135</i>	<i>0.0043</i>

Confidence interval = 95%

Table 4 : Correlations

		Index
Bank Size	Pearson Correlation	<i>0.531</i>

First, there is a positive relationship between performance score or index and bank size. Second, The value of R-square of 0.28 means only 28% percent of the variation in the performance score is explained by the bank size. This might seem rather a low value, but in cross sectional data, typically one obtains low R-square value possibly because of the diversity of the units in the sample. Third, coefficient of correlation of 0.531 shows that the two variables are, performance score and bank size are positively correlated. Fourth, at the 95% confidence level, the t-statistic is 3.135 which falls in the critical region implies that we can reject the null hypothesis that the true population value of regression co-efficient is zero. Fifth, The exact probability (i.e. *p* value) of obtaining a t value of 3.135 or greater is 0.0043. Therefore, if we reject the null hypothesis, the probability of committing Type I error is about 43 in 10,000, a very small probability indeed. Thus, it can be concluded that the true population co-efficient of bank size is different from zero.

4. Conclusion

The performance of PCBs in Bangladesh depends on some internal and external factors. Bank size is one of them. The paper uses a multi-criteria, performance based index to rank the private commercial banks operating in Bangladesh. Total profit (TP), return on asset (ROA), return on equity (ROE), and labor productivity (LP) are considered as pillars of the performance based index. After construction of performance index the hypothesis that there is a correlation between bank performance and bank size is tested through regression analysis. It is found that there is significant positive correlation between bank size and their performance. The limitation of the study is its small sample size (27). Further research is suggested to study the role of other internal and external factors such as - labor productivity, risk management, overhead cost, capital, ownership of the bank, interest rate spread, bank expenses, inflation, central bank interest rate, GDP, taxation, variables that represents market characteristics (e.g. market concentration, industry size and ownership status etc) on the performance of the bank.

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