

# A Comparative Profitability and Operating Efficiency Analysis of Public and Private Banks in Bangladesh

Udayshankar Sarkar<sup>1</sup>

## Abstract

In this study, a comparative performance analysis between state-owned and privately-owned commercial banks of Bangladesh is carried out over the period between 2006 and 2010. On the contrary to expectations, statistical findings of the study produce surprising results. The results suggest that state-owned banks are as efficient as private banks but Private Banks have much higher mean values relative to public bank. Thus, it raises the question of “whether to privatize banks or not?”

**Key words:** Efficiency, Bank performance, Public bank, Private bank.

## 1. Introduction

Since financial system is vital for an economy and banks play a pivotal role in the financial system, it is important for economies to have a sound financial and banking system. In this concept, liberalization policies have been employed all over the world especially after the 1980s. Bangladesh has made some constructing process to make a liberal structure of the banking system. As a result, financial sectors and especially banking sector have been in a gradual evolution towards too liberal structure.

The current picture of Bangladesh’s banking industry gives us the chance of addressing the issue of government banks’ relative performance. This is important for both the rationale behind bank privatization and the policy implications. In addition, it provides valuable information for further researches to make meaningful comparisons before and after privatization performances of government banks when their privatizations are observed in the future.

According to market forces theory, private banks have an advantage over state banks with respect to financial and operating efficiency. However, our study suggests that government banks are as profitable as private banks. The study, firstly, updates the regarded findings with most current data on Bangladeshi banking industry. Secondly, most studies of this kind apply economies of scale and technical productivity measures whereas our study uses operating efficiency and profitability as the measures.

This study is organized on three main parts. In the first part, theoretical and empirical researches related to the subject, are supplied. In the following part, a summary on the history and working of banking system in Bangladesh is given. The data set employed is described in the third part. Testable hypotheses, methodology and empirical findings are also supplied in this part. Finally, the paper completes with conclusion.

## Objectives

The main objective of this study is to explore and analyze the impact of good governance on the corporate governance in Bangladesh especially considering the strengths or weaknesses of financial market of Bangladesh. In addition, the aim of the study is to recommend regarding the implication of good governance that can assist a lot for developing corporate sectors in Bangladesh.

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<sup>1</sup>Department of Finance Faculty of Business Studies Jagannath University Dhaka-1100, Bangladesh

## **2. Methodology**

The study is exploratory in nature. The study is conducted mainly based on secondary data. Data and information have been collected and analyzed from various published reports of Asian Development Bank, Bangladesh Enterprise Institute, Centre for Policy Dialogue, and World Bank. Moreover, the secondary data for the study have been gathered from different articles published in different journals, daily newspaper and websites.

## **3. Literature Review**

Despite the common belief that the purpose in state-ownership of bank is to provide financing for projects with low profile of profitability yet necessary for macroeconomic goods and development, empirical studies in literature suggest differently. Like many other researchers, La Porta et al. (2002), Caprio and Peria (2000) and Barth et al. (2001) report that state ownership of banks does not serve the purpose of promoting economic growth and development but even lead to worsening economic development. Moreover, they argue that banking crises are linked with bank ownership of governments since political goals may prevent government banks to operate in their original path to serve for economic development and growth.

Since governments continue to own banks in most economies, with the exception of the US, such studies regarding bank performance cannot ignore the role of government in the banking business. In this respect, the role of governments in the industry goes beyond the regulation. When a government controls financial resources and has the ability to direct those resources to politically motivated projects through banks, there appears a possibility for corruption of public funds. This is especially the case for developing and underdeveloped countries that also lack a sound legal system. Despite the supporters of development view in the 1960s and 1970s, empirical findings of many researches like World Bank report (2001), Galindo and Micco (2004), Sapienza (2004), Dinc (2005), and Micco et al. (2007) are consistent with the political view.

It should be also noted that here arises an important discussion issue in government bank ownership and performance. That is, as argued by Yevati et al. (2004), state-owned banks should be evaluated by their function on stabilizing effect but not by their profitability. The researchers underline the importance of causality issue that exists between government bank ownership and such variables as economic development, growth, and corruption. Furthermore, they also introduce new findings which suggest that state bank ownership's negative effects on financial development and growth are not as robust as thought earlier. Their study provides evidence showing that state-owned banks may play a positive role in reducing credit procyclicality as in the case of Latin American economies. Findings in favor of state-owned banks are also reported by Bonin et al. (2005), Yevati et al. (2004), and Micco and Panizza (2004). For example, Bonin et al. (2005) report that private ownership alone does not assure bank efficiency in transition countries. In addition, Micco and Panizza (2004) suggest that state-owned banks may play a positive role in credit-smoothing.

Nevertheless, efficiency studies on banks have been producing contradictory results. This is probably attributable to one or more of country, timing, measure and methodology specific reasons. For instance, Omran (2007) analyzes both private and government banks' relative performances and also evaluates bank privatization process in Egypt by comparing the pre and post privatization performances of privatized banks; and reports that private banks outperform government banks. On the other hand, carried out a study on a developed country other than the US, Altunbas et al. (2001) provide evidence that government banks in Germany are as efficient as their private counterparts.

The issue of reasons behind governments' motivation to own banks is also another popular side of the topic grabbing researchers' attention. In this respect, considering that government bank-ownership is still common in this global modern world (La Porta et al. (2002), several studies attempt to reveal reasons behind state bank-ownership. Among conclusions, first, government bank ownership is positively associated with countries' level of poverty and underdevelopment (e.g., Barth (2001), La Porta et al. (2002), and Beck and

Levine (2002)). Second, countries' legal structure appears to be a key determinant that affects government bank-ownership. Studies of La Porta et al. (1998 and 1999) reflect that in civil law countries, especially French civil law countries, government intervention into economic life is much broader than in common law countries

### **The Current View of the Bangladesh Banking Industry**

Banks in Bangladesh fall into two groups of scope; one is commercial banks and other is investment and development banks, which do not accept deposits. The number of banks in all now stands at 49 in Bangladesh. Out of the 49 banks, four are Nationalized Commercial Banks (NCBs), 28 local private commercial banks, 12 foreign banks and the rest five are Development Financial Institutions (DFIs). Sonali Bank is the largest among the NCBs while Pubali is leading in the private ones. Among the 12 foreign banks, Standard Chartered has become the largest in the country. Besides the scheduled banks, Samabai (Cooperative) Bank, Ansar-VDP Bank, Karmasansthan (Employment) Bank and Grameen bank are functioning in the financial sector. The number of total branches of all scheduled banks is 6,038 as of June 2000. Of the branches, 39.95 per cent (2,412) are located in the urban areas and 60.05 per cent (3,626) in the rural areas. Of the branches NCBs hold 3,616, private commercial banks 1,214, foreign banks 31 and specialized banks 1,177. The commercial banking system dominates the financial sector with limited role of Non-Bank Financial Institutions and the capital market. The Banking sector alone accounts for a substantial share of assets of the financial system. The banking system is dominated by the 4 State Owned Commercial Banks, which together controlled more than 30% of deposits and operates 3383 branches (50% of the total) as of June 30, 2008.

Bank Company Act, 1991, empowers BB to issue licenses to carry out banking business in Bangladesh. Pursuant to section 31 of the Act, before granting a license, BB needs to be satisfied that the following conditions are fulfilled: "that the company is or will be in a position to pay its present or future depositors in full as their claims accrue; that the affairs of the company are not being or are not likely to be conducted in a manner detrimental to the interest of its present and future depositors; that, in the case of a company incorporated outside Bangladesh, the Government or law of the country in which it is incorporated Bangladesh as the Government or law of Bangladesh grants to banking companies incorporated outside Bangladesh and that the company complies with all applicable provisions of Bank Companies Act, 1991." Licenses may be cancelled if the bank fails to comply with above provisions or ceases to carry on banking business in Bangladesh.

## **4. Statistical Analysis**

### **Data and Methodology**

The data used in the study are gathered from the annual balance sheets and income statements of commercial banks, published by the DSE, Bangladesh. The data cover a five year period between 2006 and 2010. Due to the differences in their unique scope, investment and development banks are not included in the study. Instead, we rather perform our analysis on the commercial banks. In the application part of this study, the main goal is discovering whether there are any performance differences or not between public and private banking in Bangladesh. Profitability and operating efficiency are chosen to test the hypotheses of this study. Return on Assets (ROA) and Return on Equity (ROE) are the proxies used to measure profitability indicator. Net profit and net asset efficiencies relative to total employment and total number of branches are used to measure operating efficiency.

A non-parametric approach is used to see whether private banks perform better than public ones. In order to analyze performance differences, mean values and all other statistics are calculated by using Microsoft excel. Following the calculations, t tests are used for mean equality hypotheses.

The simple format used in the hypotheses is as follows:

$$H_0: \mu_{ipub} = \mu_{ipri}$$

$$H_1: \mu_{ipub} \neq \mu_{ipri}$$

Notes: 1) Superscript pr means private

2) Superscript pub means public

3) Subscript i mean the proxy to measure profitability or operating efficiency.

Pre-test expectations about the performances of public and private banking are as follows: Bangladeshi economy has a more liberal structure. In this respect, it is expected that privately owned firms perform better. Therefore the primary hypothesis of this study is: “Performance efficiency will be better for private banks than for state banks”. All testable hypotheses are given below in Table 1.

Most of the performance criteria researches on banking sector are specifically about the consequences of privatization (e.g., Omran (2007), Bonin et al. (2005), Clarke et al. (2005)). These studies basically compare financial and operating performances of firms before and after privatization. Most of these studies find that (e.g., Omran (2007), Nakane and Weintraub (2005), Clarke et al.(2005)) firms show better performances after privatization. The very first idea of this study emerges at this point. Then we decided that the performance comparison of current public and private banks should have been analyzed in Bangladesh. This analysis firstly aims to compare the financial and operating efficiency in the banking sector. Secondly, it is targeted to get beneficial results on the performances of government and private banking before privatization initiates in the sector.

## 5. Empirical Findings

We could not reach strong evidence that the mean levels of profitability and operating efficiency of state and private banks are statistically different than each other. In fact, all 5 proxies to measure profitability and operating efficiency could be accepted as the same for the private bank and public banks according to our statistical results.

When the profitability performances of state and private banks are compared, it is found that statistically, there are no meaningful differences in means. Three proxies are used to test whether profitability performances are different or not. When net profit/loss levels are controlled, it could be easily observed from Table 2 that state banks’ net profits are much higher than those of private banks. T value is 0.43 at most and the test gave the result of no difference. Similar results are seen when ROA and ROE figures of state and private banks are employed. It could not be claimed that government banking or private banking would give better results in terms of these ratios. However, when mean values are taken into account, there is a difference relative to net profit figures. This time, private banks have stronger means than state banks. Still, t test reports no difference in means in terms of ROA and ROE statistically. When the results are gathered to see general view in terms of profitability, it is found that there is no performance difference between state and private banks in Bangladesh for the period between 2006 and 2010.

**Table 1: Summary of Testable Hypotheses**

Characteristics	Proxies	Hypothesis
<b>Profitability</b>	Net profit- Loss(NPL) Return on Assets (ROA) Return on Equity/ROE)	$NPL_{pub} = NPL_{pr}$ $ROA_{Pub} = ROA_{Pri}$ $ROE_{Pub} = ROE_{Pri}$
<b>Operating Efficiency</b>	Net profit efficiency (NPE1)=Net profit/Total employment (NPE2) = Net profit/ Total number of Branches Net Assets efficiency (NAE1)= Net assets/Total employment (NAE2) = Net assets/Total number of branches	$NPE_{Pub} = NPE_{Pri}$     $NAE_{Pub} = NAE_{Pri}$

**Table 2: Results of the Tests for Equality of Means**

Series (Profitability)	t value
NPL <sub>Pub</sub> and NPL <sub>Pri</sub>	0.432
ROA <sub>Pub</sub> and ROA <sub>Pri</sub>	0.345
ROE <sub>Pub</sub> and ROE <sub>Pri</sub>	0.346
Series ( Operating efficiency)	
NPE1 <sub>Pub</sub> and NPE1 <sub>Pri</sub>	0.342
NPE2 <sub>Pub</sub> and NPE2 <sub>Pri</sub>	0.021
NAE1 <sub>Pub</sub> and NAE1 <sub>Pri</sub>	0.278
NAE2 <sub>Pub</sub> and NAE2 <sub>Pri</sub>	0.007

**Table 3: Means and Standard Deviation**

Variables	Means	Std. dev.	Variables	Means	Std. dev.
NPL <sub>Pub</sub>	2,322,749,646.60	1234592225	NPE1 <sub>Pub</sub>	230,767.32	104964.085
NPL <sub>Pri</sub>	255,913,290.98	16171440021	NPE1 <sub>Pri</sub>	255,913,290.98	565665975
ROA <sub>Pub</sub>	1.11	0.859094928	NPE2 <sub>Pub</sub>	3,048,726.21	1556923.74
ROA <sub>Pri</sub>	3.23	589.9689116	NPE2 <sub>Pri</sub>	16,437,936.11	10325190
ROE <sub>Pub</sub>	22.04	18.67443603	NAE1 <sub>Pub</sub>	17,361,710.98	8882758.69
ROE <sub>Pri</sub>	24.23	2337947357	NAE1 <sub>Pri</sub>	228,020,021.34	405271212
NAE2 <sub>Pri</sub>	1,304,551,846.26	658512973	NAE2 <sub>Pub</sub>	221,313,261.06	105470928.6

Note: Except for ratios, all figures are in Taka

In order to see whether there is any difference between public and private banking in terms of operating efficiency, net profit-loss and net assets are presented in terms of total employment and total number of branches. After the tests, there is no clear conclusion to say that private banks show better results than state-owned ones in operating efficiency performances. When net profit-loss is used, whether in terms of employment or branches, t values are so small that we could not reject the null hypothesis stating that operating efficiency in terms of net profit-loss is the same for private and state banks. When net assets are used in description of operating efficiency, the test results show the same result.

As a result of our analyses, it could be claimed that there is no clear difference between public and private banking in terms of profitability and operating efficiency performances in Bangladesh between 2006 and 2010. Private Banks have much higher mean values of ROA, ROE, net profit efficiency and net asset efficiency relative to public bank. In terms of net profit public banks seem to perform better results. However, when statistical tests are run, the whole picture gets new meanings. These mean differences in related indicators are losing their values in terms of statistical meanings.

## **6. Conclusion**

Although bank privatizations have accelerated all over the world since the beginning of the 1990s, the case of Bangladesh it is also same. Bangladeshi banking system is also coping with the privatization process. Even more interestingly, a number of troubled public banks have been privatized in recent years. Despite the fact that they were either liquidated or sold to private capital again after restructuring, this cannot be treated as privatization. Therefore, we currently had the chance to identify relative performances of government and private banks, and to reach insights whether our results are in line with findings on other countries' experiences.

First, it should be noted that even though the number of government banks are considerably less than that of private banks, government banks' financial figures are massive in amount. That is attributable to their much larger sizes as a result of over branching.

The study's statistical test results clearly show that performance of public banks does not differ from that of private banks with respect to the proxies employed. Moreover, government banks even outperform their private counterparts. The results are important for both the rationale behind bank privatization and the policy implications. Moreover, the study provides valuable information for further researches to make meaningful comparisons before and after privatization performances of state banks when their privatization occurs in the future. Majority of privatization studies in the literature stand in favor of privatization regarding both non-banking and banking firms. However, there are a number of studies presenting inconclusive results. As opposed to the majority, our study finds its place in the latter. Its findings make bank privatization appreciable in our country.

## **References**

- Altunbas Y., L. Evans, P. Molyneux (2001), "Bank Ownership and Efficiency", *Journal of Money, Credit and Banking*, No. 33, pp. 926-954
- Barth J.R., G. Caprio, Jr., R. Levine (2001), "Banking Systems Around the Globe: Do Regulation and Ownership Affect Performance and Stability?", *The World Bank Policy Research Working Paper Series*, No.2325, 63 pp.
- Beck T., R. Levine (2002), "Industry Growth and Capital Allocation: Does having a Market- or Bank Based System Matter?", *Journal of Financial Economics*, No. 64, pp. 147-180.
- Bonin J.P., I. Hasan, P. Wachtel (2005), "Bank Performance, Efficiency and Ownership in Transition Countries", *Journal of Banking & Finance*, No. 29, pp. 31-53.
- Caprio G., M.S.M. Peria (2000), "Avoiding Disaster: Policies to Reduce the Risk of Banking Crises", *ECES Working Paper*, No. 47, 33 pp.
- Clarke G.R.G., R. Cull, M.M. Shirley (2005), "Bank Privatization in Developing Countries: A Summary of Lessons and Findings", *Journal of Banking & Finance*, No. 29, pp. 1905-1930.
- Dinc I.S (2005), "Politicians and Banks: Political Influences on Government-Owned Banks in Emerging Markets", *Journal of Financial Economics*, No.77, pp. 453-479.
- Galindo A., A. Micco (2004), "Do State Owned Banks Promote Growth? Cross-Country Evidence for Manufacturing Industries", *Economics Letters*, No.84, pp. 371-376.
- La Porta R., F.L. de Silanes, A. Shleifer (2002), "Government Ownership of Banks", *Journal of Finance*, No. 57, pp. 265-301.
- La Porta R., F.L. de Silanes, A. Shleifer (1999), "Corporate Ownership around the World", *Journal of Finance*, No. 54, pp. 471-517.
- La Porta R., F.L. de Silanes, A. Shleifer, R.W. Vishny (1998), "Law and Finance", *Journal of Political Economy*, No. 106, pp. 1113-1155.

- Micco A., U. Panizza (2004), "Bank Ownership and Lending Behavior", Inter-American Development Bank Research Department Working Paper, No. 520, 19 pp.
- Micco A., U. Panizza, M. Yanez (2007), "Bank Ownership and Performance. Does Politics Matter?" *Journal of Banking & Finance*, No. 31, pp. 219-241.
- Nakane M.I., D.B. Weintraub (2005), "Bank Privatization and Productivity: Evidence for Brazil", *Journal of Banking & Finance*, No. 29, pp. 2259-2289.
- Omran M. (2007), "Privatization, State Ownership, and Bank Performance in Egypt", *World Development*, No. 35, pp. 714-733.
- Sapienza P. (2004), "The Effects of Government Ownership on Bank Lending", *Journal of Financial Economics*, No.72, pp. 357-384.
- World Bank (2001), *World Development Report 2000/2001: Attacking Poverty*. Washington, DC United States: World Bank, p.123.
- Yevati E.L., A. Micco, U. Panizza (2004), "Should the Government Be in the Banking Business? The Role of State-Owned and Development Banks", Inter-American Development Bank Research Department Working Paper, No. 517, 47 pp.