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Analysis of Employee Productivity of Commercial Banks in Bangladesh: A Comparative Study

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ABSTRACT

The study aims at reviewing the employee productivity of a Nationalized Commercial Bank (NCB) in comparison to a Private Commercial Bank (PCB) in Bangladesh. Employee productivity works as a catalyst to the growth of a bank. Commercial banks always play a key role in activating the financial sector of a country. Both NCBs and PCBs are integral parts of the commercial banking system in Bangladesh. Data collected from primary and secondary sources are organized in the forms of tables, time series, percentages, rates, ratios etc. The technique of analysis and interpretation follows mean values, SD, CV, AGR and AAGR. The employee productivity of both the NCBs and the PCBs in Bangladesh was at upward trends in most of the cases although all of them were not at the satisfactory level during the study period. The employee productivity of the NCBs in context of total deposits, advances, investment, assets, income and foreign business per employee were in upward trends during the period under study. On the other hand, the trend of total advances per employee of the PCBs was in downward although the trends in all other respects were at upward trends. They are facing problems in all most all the areas of employee productivity in comparison to other developed and developing countries. Both the NCBs and the PCBs need to be more attentive in professional training, motivational incentives, participatory decision making and, maintaining sound environment and high morale for the further improvement of employee productivity.

Keywords: Bank, Comparison, Employee, Nationalized Commercial Bank, Private Commercial Bank, Productivity

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1. Introduction

Banking system as a whole plays an important role in the economy of a country irrespective of its level of development. The stronger the banking system, the stronger the economic base of a country. It is quite impossible to make sustainable economic progress and industrial development without suitable banking system. To run a bank effectively, evaluation of employee productivity is urgently needed in the truest sense of the term as employee productivity plays the central role in smooth functioning of both the public and the private banks. It works as a catalyst to the growth of a bank. Commercial banks always play a key role in activating the financial sector of a country. Both Nationalized Commercial Banks (NCBs) and Private Commercial banks (PCBs) are integral parts of the commercial banking system in Bangladesh. Employee productivity is a relative concept, but a subjective issue for both the NCBs and PCBs and it always remains at the focal point of all banking activities and focuses different roles in the enhancement of overall performance of commercial banks i.e., NCBs & PCBs in Bangladesh. Except a few journal articles, no systematic and in-depth study has yet been done to examine and evaluate the employee productivity of the public and the private sector commercial banks in Bangladesh. The present study, therefore, aims at reviewing employee productivity of the public and the private sector banking in Bangladesh. "Had there been the same set of objectives for the NCBs and the PCBs, then it would have been easier to evaluate the employee productivity on the basis of uniform criteria. Even then, such an evaluation of employee performance is necessary for the banking sector to improve and maintain commercial viability and encourage inter-bank competitiveness" (Habibullah, 1989). This study is established in that direction.

Background of Banking in Bangladesh

The territories, which now constitute Bangladesh, were the integral part of Mughal Empire and thereafter British India and then Pakistan. Hence, we have the common historical background of banking and banking institutions as that of Pakistan and India. After the partition of British India into Pakistan and India, the territories now form Bangladesh became the integral part of Pakistan and was called East Pakistan. Most of the bank branches available in the then East Pakistan were non-scheduled. Bangladesh, actually, started her own banking journey with the Nationalization Order on March 26, 1972. At the very beginning of our independence on December 16, 1971, the then Government of Bangladesh (GOB) nationalized all the commercial banks to ensure better services and facilities to all areas of the country for the balanced development of the nation as a whole. Thus, NCBs started their journey from the very beginning of our independence although the banking system as it existed in pre-liberated period, suffered from a number of weaknesses and limitations. The banking sector of Bangladesh switched over from the Government owned commercial banking to simultaneously Government and private owned banking in 1983 to ensure a competitive environment in the banking sector with a view to providing better services to the people. Hence, PCBs started their activities from 1983 side by side of the NCBs. Subsequently, many other banks from home and abroad had been given permission for doing banking business in the private sector. At present, there are fifty nine scheduled banks including NCBs and PCBs in Bangladesh.

2. Literature Review

Review of literature is an inseparable part of conducting a research. This is required to find out the knowledge gap in the proposed field of study. In this field of study, very limited research works were conducted earlier. No in-depth study was undertaken on the subject by any person. But some relevant studies were accomplished. Some of those relevant studies have been reviewed below to find out the knowledge gaps:

Abendin et al. (1989) attempted to make a paper entitled "*A preliminary note on measurement of productivity in the commercial banks of Bangladesh*". The objectives of the study were to measure the recent productivity levels of different types of commercial banks, to see the recent trends of their productivity levels and to make a rough comparison among the level of productivity of different types of commercial banks. They found that working fund per employee rose for all the commercial banks of Bangladesh from 1975 to 1988. The productivity index explained a steady growth of bank output during 1988. There was wide variation in the levels of productivity of PCBs (Tk.20 lakh per employee) was lower than that of all banks (Tk. 23 lakh per employee). The level of productivity of foreign banks was always greater than those of all banks. At the initial stage (1985), the level of productivity of the PCBs was much below the same of all banks. But these banks improved their productivity in 1988 and it moved up to from Tk. 8 lakh per employee in 1985 to Tk. 30 lakh per employee in 1988.

Ahmed and Nizami (1998) in their study on "*Comparative Performance on Nationalized and Private Commercial Banks in Bangladesh: A Study on Important Aspects*" found that the Nationalized Commercial Banks (NCB) in Bangladesh showed better performance in maintaining stability and the deposit lending performance. However, the Private Commercial Banks (PCB) found better than the NCBs in the fields of increased growth rate in profitability, deposit, mobilization of resources and credit disbursement. The NCBs' performance was also better in branch expansion. Some factors that influenced the profit and employee performance included manpower expenses, deposit mix, ratio of advance to deposit along with optional credit mix. The NCBs gave emphasis on social obligation like expansion of branches in rural and remote areas, providing loans and advances to priority sectors at low interest rate etc. On the contrary, the PCBs were mostly urban based. They were providing loans and advances mainly for trade financing. There were the devices for the safe and rapid turnover of the fund developed for contributing to increased profit. Moreover, wide inter-bank performance both among the NCBs and the PCBs had also been observed. This has, basically, attributed to size, operational policies, and leadership dimensions of the management. Against this backdrop, deposit base must be broaden for the NCBs and the PCBs from two different angels. For the NCBs, overall motivational factors should be ensured specially for rural areas in one hand and attracting deposit on the other. For the PCBs, mobilization of savings and expansion of branches in rural areas should be ensured through policy measures. The PCBs should modify their urban biasness and consider increased involvement in priority and rural development financing to widen the base of credit so as to serve the economy of the country in line with Government policy for the development of the neglected sectors, not exactly like the NCBs but to the significant extent. The PCBs could not neglect their social

responsibility. The study didn't attempt to evaluate the factors that had adversely affected the performance rather it pointed out the performance level of both the NCBs and the PCBs. However, for efficient use of scarce resources of our country, there is need to identify and evaluate the obstructing factors so that corrective measures can be taken in the areas of the NCBs and the PCBs where necessary.

Bhattacharjee (1991) made a study on "*Productivity Measurement in the Nationalized Commercial Banks of Bangladesh: A Multivariate Analysis*". This paper aimed at reviewing conceptual dimensions of productivity with reference to the commercial banks and identifying a set of productivity measures for examining productivity trends of the NCBs of Bangladesh with the help of multivariate analysis. In an attempt of classifying the productivity measures on the basis of interrelatedness, selected measures were put to factor analysis. As revealed by factor analysis, there were five underlying factors. Each of these factors represented specific group of homogeneous productivity measures. It revealed that out of five sets of productivity measures representing five different dimensions, two sets showed rising trends while three sets of productivity measures were found to be associated with variations in policies pertaining to structure and processes.

Cookson (1989) in his article titled "*Productivity in the Banking Industry in Bangladesh*" stated that productivity in the banking industry is very difficult to estimate by using available data. He also said that the conceptual difficulties limit comparisons among the banks in Bangladesh. In this paper, the author tried to give a proper definition of labor productivity in commercial banking. He referred to the average labor productivity as the appropriate measure of productivity in the banks. He opined, "Of course if one wishes to examine productivity trends over several years then correction for the inflation in prices must be made." The author considered the period 1979-88 for the Nationalized Commercial Banks (NCBs), 1984-88 for the Private Commercial Banks (PCBs), and 1984-88 for all the banks. He observed that the productivity in the private banks including foreign banks was twice than that of the NCBs but there was no clear evidence of an increasing trend in the private banks' productivity. He pointed out that the productivity of the total commercial banking system was stagnant. However, he took a partial approach for measuring productivity of the banks. In no way it reflected the total productivity scenario of the banking sector.

Das **(**2002) in his article titled "*Risk and Productivity Change of Public Sector Banks*" tried to explore the interrelationships among capital, non-performing loans and productivity in the Indian public sector banks for the period of 1995-96 through 2000-2001. He found that capital, risk and productivity change to be intertwined, with each reinforcing and to a degree, complementing the other. The results implied that inadequately capitalized banks had lower productivity and are subject to a higher degree of regulatory pressure than adequately capitalized ones.

Gupta and Kaur (2014) in their article entitled "A comparative study of the performance of selected Indian private and public sector banks," conducted the research for measuring bank's performance by using the CAMEL model and provided rating for top five and bottom five Indian private banks. They identified the productive efficiency of the banks in their own way.

Hoque and Ali (1997) wrote an article titled "*Achievement Motivation and Performance of Public Sector Commercial Bank Employees in Bangladesh*". They assessed the level of achievement motivation of different categories of employees of the Public Commercial Banks (PCBs) in Bangladesh. The results had revealed that achievement motivation had significant positive co-relation with performance of employees. While suggesting recommendations, the authors deliberately confessed that their results of the study might not be true representation of the achievement motivation and performance of the employees in the private commercial banks. They did neither make a single bank based study nor a comparative study and also advocated to undertake an in depth study on this issue by taking larger sample size. Therefore, the present researcher undertakes this study.

Hossain & Bhuiyan (1990) made a study on "*Performance Dynamics of NCBs in Bangladesh: The Case of Sonali Bank*". The object of the study was to find out the dynamics of performance indicators and trace out their casual relationship on the basis of measurable facts. In processing the data, various methods of conventional statistics were deployed. Frequency distribution, measures of central tendency, dispersion, time series analysis, growth rates, analysis of variance, simple correlation and regression analysis etc. were the main statistical techniques used to reveal the inherent characteristics of the phenomenon studied. Analysis of branch performance, employment performance, profitability measures, general business measures, social profitability measures etc. were given due emphasis. But, an in-depth study is required to find out so many measures accurately.

Jahangir & Haq (2005) in their article entitled "Effects of Managerial Leadership Power Bases on Employees' Job Commitment in the Nationalized Commercial Banks of Bangladesh" stated that Lack of efficiency in the NCBs of Bangladesh couldbe attributed to a number of sources. Absence of adequate infrastructure facilities, lack of modern technology and the use of conventional managerial approaches have all contributed to thedismal performance of the NCBs.

Malek (2005) had an article on "*A Comparative Analysis of Commercial Banking Performance in Bangladesh*" and tried to judge and compare the performance of the Nationalized Commercial Banks (NCBs), the Private Commercial Banks (PCBs) and the Foreign Commercial Banks (FCBs) in context of deposit collection, foreign business and over all financial result during 1999 to 2002. The study showed that overall deposit trend was increasing in all three groups but the trend of deposit collection in case of local private commercial banks was sharper compared to other two banks. Foreign banks did not perform well in collecting deposit during 1999 to 2002. Local private commercial banks were holding the major portion of the total international business in all areas of international business except remittance due to absence of foreign branches of local private commercial banks. The study also showed that the performance of the NCBs was low in all respects compared to the performance of the local PCBs and the FCBs in Bangladesh despite of the fact that the NCBs were holding 50% of the total banking assets. This study gave simple picture keeping the room for further study in different areas of bank management.

Mohan and Ray (2004) in their paper on "*Productivity Growth and Efficiency in Indian Banking: A Comparison of Public, Private and Foreign Banks*" compared the performance of state-owned enterprises

with those of the private sector firms in respect of technical efficiency. The comparison was made in eight different sectors over the period 1991-92 to 1998-99. They found that there is no exclusive evidence of superior performance on the part of the private sector.

Rahman (1994) wrote an article on "*Trends of Employees' Productivity in Commercial Banks in Bangladesh*". There are three different categories of Commercial banks in Bangladesh viz., Nationalized Commercial Banks (NCBs), Private Commercial Banks (PCBs) and Foreign Banks having different sizes, objectives and functional areas. In this paper, an attempt was made to show the trend of employees' productivity of the NCBs and the PCBs only using the same productivity indicators. Since the commercial banking system in Bangladesh is service oriented and labor intensive, employees are the main input and therefore employees' productivity is the main measure of banking productivity. Employees' productivity had been calculated as output (volume of taka) per unit of input (employee). It is observed that per employee deposit, advance and expenditure had almost an increasing trend in both the NCBs and the PCBs but per employee profit and investments showed zigzag trend during the study period. In fact, productivity in the PCBs was much higher than in the NCBs.

Saha et al (2000) in their study namely, "*Cost Efficiency in Banking*" tried to shed light on the relationship between costs and earnings of the banks and tried to identify the potential factors responsible for determining the level of cost efficiency existing among the banks and their branches. The NCBs were found relatively less cost efficient compared to the PCBs in respect of providing services to the customers. This was because of the fact that the PCBs were not providing a number of social banking services which were rendered by the NCBs. Relatively higher productivity was observed in the PCBs as compared to the NCBs. Almost all of the sampled banks depended on the interest income to meet total expenses. The PCBs bear higher average rate of interest on deposit than the NCBs.

Shah and Khan (2000) in their study on "*Efficiency of Some Selected Commercial Banks in Bangladesh*" investigated the efficiency of certain commercial banks operating in the country. It considered 21 commercial banks selected from the groups of nationalized, domestic private and foreign banks. The principal component analysis, a special case of factor analysis, was adopted to measure the efficiency of these banks based on 7 productivity indicators. The analysis revealed that out of 20 banks, only 7 of them were efficient. Of these 7 efficient banks, 6 were foreign banks and only 1 was a domestic private bank. None of the nationalized commercial banks was found to be efficient. Thus, the study supported the general notion that Nationalized Commercial banks were quite inefficient, domestic commercial banks were, somehow, inefficient while foreign banks were quite efficient.

Shakoor's (1989) paper on "*Measurement of Productivity in Commercial Banks in Bangladesh*" investigated into the nature of productivity of four Nationalized Commercial Banks (NCBs) during 1972-86 and that of five Private Commercial Banks (PCBs) during 1983-86. The paper focused on some selected indicators of general productivity and profitability, such as deposits, advances, income, spread, expenditure etc. per employee and per branch. He used some statistical measures, such as averages, standard deviation and coefficient of variation for both the NCBs and the PCBs. The other statistical measures like trend,

correlation, regression analysis etc. were not used by the author. He observed that the productivity of the NCBs in Bangladesh had an increasing trend during 1972-86 and the productivity of the selected private banks showed better situation when compared with that of the NCBs during the period under study. But, his study had limitations and in no way that reflected the total productivity trend of the commercial banking sector as a whole.

Taheruddin (1989) made an attempt to judge the "*Manpower Productivity Situation in Nationalized Commercial Banks in Bangladesh*". Three major nationalized commercial banks i.e. Sonali Bank, Janata Bank and Agrani Bank were taken. Productivity measurement of the banks in the private sector may be slightly premature because of the relatively short period of their operation. There was phenomenal growth in branch network from 1179 in 1971 to about 5500 in 1989. During the period, a number of banks had been allowed to operate in the private sector to cater to the financing needs of the growing private sector. Some ideas could be gathered on the state of productivity in banks through a number of indications like

(i) per employee deposits, advances and such account;
(ii) per employee vouchers;
(iii) per employee income, expenditure & profit; and
(iv) per branch deposits, advances & such accounts etc.

Objectives of the Study

The main objective of the study is to evaluate the efficiency and effectiveness of employee productivity of a Nationalized Commercial Bank (NCB) in comparison to a Private Commercial Bank (PCB) in Bangladesh. The specific objectives of the study are as follows:

(i) To evaluate the growth and development of NCBs & PCBs in Bangladesh.
(ii) To show the analysis of selected ratios of the NCB & the PCB during the period of study.
(iii) To measure the comparative employee productivity of the NCB & the PCB during the period of study.

3. Methodology

The research methodology has been designed in such a way that accomplishes the research objectives by minimizing the constraints of time and research limitations. Though methodology plays greater important roles in any scientific or social research, the method to be used somehow differs from one research to another. The present study makes an attempt to apply the method of documentary analysis. This is defined as "an attempt to find out what happened in the course of time and to correlate the events within the limits of available materials on the one hand and of the researcher's intelligence and understanding into a meaningful sequence on the other.

Data, their Authenticity, Reliability and Presentation

Both the primary and the secondary data have been used in the study. All the data are incorporated in the study in accordance with their suitability and needs with due care, attention and acknowledgements. For justifying the authenticity of the documents and the books, and credibility of the data within the documents and the books, special care has been taken in using the original works and documents, distinguishing between a fact and opinion.[3] Reliability is also justified by the care of the author in acknowledging the sources of information. Data collected from different sources are presented in the forms of tables, time series, percentages, rates, ratios etc. Different techniques of data analysis are also presented keeping pace with the relevance of the respective fields.

Period of the Study

Bangladesh has been experiencing of banking under Government ownership since its independence in 1971, but there was no domestic private commercial bank from the very beginning of independence till 1982. The private commercial banks started their journey from 1983 in the post independent era. Now, the NCBs and the PCBs have already passed three decades i.e., 1983 – 2018 of co-existence. It is the comparative study on employee productivity of the public and the private sector. Hence, the study covers the period of a decade (12 years) on the basis of availability of data maintaining the same year for both the NCB and the PCB.

Selection of Banks

For the proposed study, being a comparative one in nature, two banks each from the public sector, namely Janata Bank Limited and the private sector, namely City Bank Limited have been selected considering their maturity in their respective sector in independent Bangladesh, which are shown as the Nationalized Commercial Bank (NCB) and the Private Commercial Banks (PCB) respectively throughout the study.

Tools and Techniques of Data Analysis

Major statistical formulae and productivity measuring techniques are used to analyze and interpret the collected data carefully. Computer software and programs have also been used to analyze them properly.

Statistical Tools of Data Analysis

Major statistical tools Average (Mean), Standard Deviation (SD), Coefficient of Variance (CV), Annual Growth Rate (AGR) etc. are mainly employed to draw the inferences from the data collected and financial variables used in the study and also to study the interrelationships between the items of the financial statements and their impact on financial performance.

Measures of Productivity

In order to point out the state of improvement brought about by the banks in their functioning during a specified period, incremental ratios approach is used for the measurement.

Incremental ratio approach: Incremental ratios might be framed in the following way **(**Joshi, 1988):

$$Q = \frac{\frac{\Delta O}{O}}{\frac{\Delta I}{I}}$$

Where,

Q = Productivity or output responsiveness to change in inputs

O = Output

I = Input, and

Δ = Changes

In this study, employee productivity is seen from the following points of views:

1. Total Deposit per Employee
2. Total Advances per Employee
3. Total Investment per Employee
4. Total Assets per Employee
5. Total Income per Employee
6. Total Foreign Business per Employee

4. Analysis and Interpretation

Employee Productivity of the NCB and the PCB during the Period of Study

Table 1: Total Deposits per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	4.36	5.98	5.17	7th	8.51	11.24	9.88
2nd	5.09	6.05	5.57	8th	8.67	11.85	10.26
3rd	5.07	5.80	5.44	9th	9.62	12.33	10.98
4th	5.40	7.28	6.34	10th	11.02	12.56	11.79
5th	6.18	8.25	7.22	11th	11.20	12.74	11.97
6th	9.78	10.18	9.98	12th	12.59	11.66	12.13
Average (Avg.)					8.12	9.66	8.89
Standard Deviation (SD)					2.82	2.79	2.81

Coefficient of Variance (CV)	34.66	28.89	31.78
Annual Growth Rate (AGR)	188.58	95.04	141.81
Average Annual Growth Rate (AAGR)	10.74	6.09	8.42
Maximum Level (Max.Lev.)	12.59	12.74	12.67
Minimum Level (Min. Lev.)	4.36	5.80	5.08

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 1: This table shows the position of Employee productivity i.e. Total Deposits per Employee of the NCB & the PCB having AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the period of study. Average position of the PCB i.e., Tk. 9.88 million is higher than that of the PCB i.e., Tk 8.12 million during the period of study. In average, the SD & CV positions of the NCBs were moderate, which indicate the moderate fluctuation during the study period. In average, the SD & CV positions of the PCB were found low, which indicates the low fluctuation during the study period. In case of AGR & AAGR, the NCB is in better position than those of the PCB during the study period. The maximum and the minimum levels of the NCB and the PCB are very close to each other which indicates the little range during the period under study. So, it is clear that the NCB was more favorable than the PCB although the difference between them was not mentionable during the study period.

Table 2: Total Advances per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	2.81	4.19	3.50	7th	6.11	7.93	7.02
2nd	3.09	4.58	3.84	8th	6.35	8.73	7.54
3rd	3.29	4.73	4.01	9th	6.86	9.44	8.15
4th	4.28	5.18	4.73	10th	8.06	2.37	5.22
5th	4.78	5.95	5.37	11th	8.60	2.45	5.53
6th	7.08	7.54	7.31	12th	9.32	2.18	5.75
Average (Avg.)					5.89	5.44	5.67
Standard Deviation (SD)					2.22	2.51	2.37
Coefficient of Variance (CV)					37.78	46.21	42.00
Annual Growth Rate (AGR)					231.67	-47.99	91.84
Average Annual Growth Rate (AAGR)					12.48	3.77	8.13
Maximum Level (Max.Lev.)					9.32	9.44	9.38
Minimum Level (Min. Lev.)					2.81	2.18	2.50

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 2: This table shows the position of employee productivity i.e., Total Advances per Employee of the NCB & the PCB using the statistical tools like AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the period of study. In the NCBs, SB had the highest Average position of the NCB i.e., Tk. 5.89 million is higher than that of the PCB i.e., Tk. 5.44 although they are very close to each other. In average, the SD & CV positions of the PCB were higher than that of the NCB, which indicate the high fluctuation during the study period. In the position of AGR & AAGR, position of the NCB is better than the PCB during the study period. The maximum and the minimum levels were very close to each other, which indicates the little range during the period under study. It is, therefore, clear that the NCB had more favorable position than the position of the PCB during the period under study.

Table 3: Total Investment per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	0.92	0.48	0.70	7th	1.82	1.43	1.63
2nd	1.11	0.51	0.81	8th	1.43	2.00	1.72
3rd	1.04	0.55	0.80	9th	1.81	1.75	1.78
4th	1.12	0.87	1.00	10th	1.90	0.68	1.29
5th	1.20	0.96	1.08	11th	1.96	0.69	1.33
6th	1.61	1.17	1.39	12th	2.30	0.81	1.56
Average (Avg.)					1.52	0.99	1.26
Standard Deviation (SD)					0.44	0.50	0.47
Coefficient of Variance (CV)					29.11	50.21	39.66
Annual Growth Rate (AGR)					149.30	68.13	108.72
Average Annual Growth Rate (AAGR)					9.72	7.27	8.50
Maximum Level (Max.Lev.)					2.30	2.00	2.15
Minimum Level (Min. Lev.)					0.92	0.48	0.70

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 3: This table shows the position of employee productivity i.e. Total Investment per Employee of the NCB & the PCB having the tools of statistics like AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the study period. Here, the average position of the NCB and the PCB is 1.52 million and 0.99 million respectively, which indicates higher position of the NCB than the PCB. In average, the SD & CV positions of both the NCB and the PCB were low, which indicate the minimum fluctuation during the study period. In the position of AGR & AAGR, the NCB is also in better position the PCB during the study period. The maximum and the minimum levels of both of them were also low, which indicates the minimum range during the period under study. Hence, it is clear that the NCB had more favorable position than the position of the PCB during the period under study.

Table 4: Total Assets per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	0.62	5.63	3.13	7th	1.27	13.98	7.63
2nd	0.77	6.16	3.47	8th	1.31	14.01	7.66
3rd	0.84	6.93	3.89	9th	1.25	14.63	7.94
4th	0.95	8.97	4.96	10th	1.23	3.97	2.60
5th	1.09	10.28	5.69	11th	1.27	4.23	2.75
6th	1.53	12.28	6.91	12th	1.67	3.94	2.81
Average (Avg.)					1.15	8.75	4.95
Standard Deviation (SD)					0.31	4.16	2.24
Coefficient of Variance (CV)					26.99	47.57	37.28
Annual Growth Rate (AGR)					170.56	-29.91	70.33
Average Annual Growth Rate (AAGR)					10.61	7.18	8.90
Maximum Level (Max.Lev.)					1.67	14.63	8.15
Minimum Level (Min. Lev.)					0.62	3.94	2.28

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 4: This table shows the position of employee productivity i.e. Total Assets per Employee of the NCB & the PCB with the formula of statistical techniques such as, AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the period of study. The PCB i.e., 8.75 million is in higher position than the NCB i.e., 1.15 million in the context average position. In average, the SD & CV positions of the PCB were high, which indicate the high fluctuation during the study period. In this respect, the NCB indicates low fluctuation. In case of AGR & AAGR, the NCB is more positive than that of the PCB during the study period. The maximum and the minimum levels of the PCB is higher than that of the NCB during the period under study. So, it is clear to us that the PCB had more favorable position than the position of the NCB during the period under study.

Table 5: Total Foreign Business per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	3.79	7.04	5.42	7th	6.94	21.10	14.02
2nd	4.06	8.91	6.49	8th	7.80	29.57	18.69
3rd	4.39	9.94	7.17	9th	9.80	61.13	35.47
4th	4.35	11.41	7.88	10th	10.30	4.46	7.38
5th	5.30	12.95	9.13	11th	10.51	4.57	7.54
6th	7.87	20.72	14.30	12th	12.16	4.34	8.25

Average (Avg.)	7.27	16.35	11.81
Standard Deviation (SD)	2.92	16.14	9.53
Coefficient of Variance (CV)	40.15	98.73	69.44
Annual Growth Rate (AGR)	220.77	-38.41	91.18
Average Annual Growth Rate (AAGR)	12.16	20.71	16.44
Maximum Level (Max.Lev.)	12.16	61.13	36.65
Minimum Level (Min. Lev.)	3.79	4.34	4.07

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 5: This table shows the position of branch productivity i.e. Total Foreign Business per Employee of NCBs & PCBs having AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the period under study. The average position of the PCB i.e., Tk. 16.35 is much higher than that of the NCB i.e., Tk. 7.27 million In average, the SD & CV positions of the PCB were high, which indicate the high fluctuation during the study period. In the position of AAGR, the PCB was also in better position than the NCB during the study period. The maximum and the minimum levels indicate the little range during the period under study. Hence, it is clear to us that the PCB had more favorable the NCB during the period under study.

Table 6: Total Income per Employee of the NCB & the PCB during the Period of Study

Year	NCB	PCB	Avg.	Year	NCB	PCB	Avg.
		(In %)				(In %)	
1st	0.31	0.46	0.39	7th	0.67	1.21	0.94
2nd	0.38	0.54	0.46	8th	0.72	1.46	1.09
3rd	0.42	0.55	0.49	9th	0.70	1.50	1.10
4th	0.47	0.68	0.58	10th	0.86	1.52	1.19
5th	0.54	0.81	0.68	11th	0.94	1.58	1.26
6th	0.79	1.04	0.92	12th	1.15	1.62	1.39
Average (Avg.)					0.66	1.08	0.87
Standard Deviation (SD)					0.25	0.45	0.35
Coefficient of Variance (CV)					37.64	41.95	39.80
Annual Growth Rate (AGR)					271.36	250.86	261.11
Average Annual Growth Rate (AAGR)					13.65	12.61	13.13
Maximum Level (Max.Lev.)					1.15	1.62	1.39
Minimum Level (Min. Lev.)					0.31	0.46	0.39

(Source: Annual Report of Selected Banks & Resume during the Period of Study)

Table 6: This table shows the position of employee productivity i.e. Total Income per Employee of the NCB & the PCB having AVG., GA, SD, CV, AGR, AAGR, Maximum & Minimum level during the period of study. The average position of the PCB i.e., 1.08 million is higher than the PCB i.e., 0.66 million. In average, the SD & CV positions of the PCB were high, which indicate the high fluctuation during the study period. In the position of AGER & AAGR, the NCB is better position than the PCB during the study period. The maximum and the minimum levels of both of them indicate the little range during the period under study. So, it is clear that the PCB had more favorable position than the position of the NCB during the period under study.

5. Findings

The common people throughout the country have easier access to the NCBs than that of the PCBs. It also reflects the more social banking of the NCBs than that of the PCBs. On the other hand, the PCBs show favorable position in comparison to the NCBs in context of assets quality and average growth rate of deposits. In the same way, the PCBs shows better performance in the areas of customer services, capital adequacy, quality of assets, income ratios etc.

The employee productivity of both the NCBs and the PCBs in Bangladesh was at upward trends in most of the cases although all of them were not at the satisfactory level during the study period. The employee productivity of the NCBs in context of total deposits, advances, investment, assets, income and foreign business per employee were in upward trends during the period under study. On the other hand, the trend of total advances per employee of the PCBs was in downward although the trends in all other respects were at upward trends. The NCBs were in better position in some areas of employee productivity and the PCBs were in better position than the NCBs in some other areas. Inadequate training, lack of motivational incentives, absence of participatory decision making, inability in maintaining high morale of the employees can be said to be the common reasons of unsatisfactory level of employee productivity.

In overall consideration, it can be said that the PCBs were in more favorable position in the areas of profitability, customer services and motivational incentives than that of the NCBs during the period under study. On the other hand, the NCBs were more favorable in the areas of job security, expansion of branches to rural areas, priority sector services and the reduction of regional disparity than that of the PCBs. Moreover, some crucial national and international problems such as, nepotism, corruption, default culture, money laundering etc. are responsible for the unsatisfactory employee performance in both the cases.

6. Conclusion

Bangladesh is, now, a rising economy of the world. The commercial banks are considered the nerve center of all economic development in Bangladesh. Nowadays it has been recognized that banking sector, one of the most rising sector in Bangladesh, has been competing with each other and each of the banks is trying to concentrate in making more profits. But they cannot ignore the social profits. Hence, banks either in public sector or in the private sector have to bear some public responsibilities in addition to the satisfaction of their

private interests. The productive efficiency and social banking have, therefore, become the twin objectives of both the NCBs and the PCBs in the present socio-economic context of Bangladesh. The study shows that the NCBs need to improve productive efficiency and customer services along with sustaining the present trends of social banking for being commercially viable in the 21st century. The PCBs need to ensure social banking like expansion of the branches to rural areas, priority sector services, reduction of regional disparity etc. side by side of maintaining the present trends of productive efficiency and customer services in consideration of socio-economic condition of the common people in Bangladesh. Besides the internal factors and socio-economic conditions, other external factors like technological advancement, political stability, rule of law, democracy and globalization etc. must be brought into consideration for the smooth functioning of all the banks available in Bangladesh. If the aforesaid findings are accepted in the right direction, not only the productive efficiency but also the overall performance of the public and the private sector banks in Bangladesh is expected to improve further. It is, therefore, expected that this study may be of great use to the management of all banks, bankers, policy makers, planners, researchers, academician, students and those working to formulate future action plans for the betterment of the banking sector in particular and the economy as well as the country as a whole.

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Appendices

Appendix-A: Consolidated Information of the NCB during the period of Study

(Taka in Million)

Year	Total Deposits	Total Advances	Total Investment	Total Assets	Foreign Businesses	Total Income	Total Employees
1st	75704.20	48754.60	15979.00	10707.90	65751.00	5359.50	17351
2nd	87031.70	52946.10	19058.00	13133.00	69547.00	6576.70	17113
3rd	88489.00	57329.90	18065.00	14580.50	76601.00	7304.00	17451
4th	92479.00	73409.90	19223.00	16214.70	74616.00	8112.50	17138
5th	104678.00	80952.90	20368.00	18402.80	89758.00	9207.00	16947
6th	124122.00	89862.00	20455.00	19360.00	99941.00	10013.00	12692
7th	138893.00	99748.70	29719.00	20740.20	113325.00	10990.00	16330
8th	138597.00	101461.90	22822.00	20915.90	124724.00	11518.40	15989
9th	151035.00	107786.00	28375.00	19556.10	153874.00	10934.50	15705
10th	168895.00	123546.00	29168.00	18866.00	157880.00	13148.00	15321
11th	172603.00	132564.00	30125.00	19542.00	161943.00	14547.00	15406
12th	192603.00	142564.00	35120.00	25542.00	185943.00	17547.00	15297
AVG	127927.49	92577.17	24039.75	18130.09	114491.92	10438.13	16062
SD	38602.81	31132.66	6132.30	3954.21	41714.86	3491.69	1340
CV	30.18	33.63	25.51	21.81	36.43	33.45	8.35
AGR	154.42	192.41	119.79	138.53	182.80	227.40	-11.84
Max. lev.	192603.00	142564.00	35120.00	25542.00	185943.00	17547.00	17451
Min. Lev.	75704.20	48754.60	15979.00	10707.90	65751.00	5359.50	12692

Appendix-B: Consolidated Information of the PCB during the period of Study

(Taka in Million)

Year	Total Deposits	Total Advances	Total Investment	Total Assets	Foreign Businesses	Total Income	Total Employees
1st	10286.00	7215.25	834.13	9685.76	12113.62	792.75	1721
2nd	10377.00	7856.56	882.25	10556.67	15275.92	918.74	1714
3rd	10510.00	8564.98	995.16	12545.26	18009.84	999.41	1811
4th	12544.00	8935.54	1492.80	15468.45	19676.60	1179.30	1724
5th	13804.00	9964.54	1614.36	17209.10	21675.60	1356.50	1674
6th	17184.00	12729.22	1977.95	20726.40	34970.60	1749.07	1688

7th	19684.00	13884.90	2511.40	24481.60	36951.10	2120.89	1751
8th	20047.00	14778.55	3379.26	23698.56	50024.44	2475.04	1692
9th	22237.00	17027.82	3161.38	26375.56	110216.63	2707.84	1803
10th	23773.00	4492.07	1290.28	7512.40	8448.14	2875.87	1893
11th	24136.00	4652.00	1302.00	8014.00	8666.00	2993.00	1895
12th	26636.00	4982.00	1862.00	9014.00	9906.00	3693.00	2285

AVG	17601.50	9590.29	1775.25	15440.65	28827.87	1988.45	1804
SD	5957.33	4182.35	849.67	6910.08	28718.02	960.00	169
CV	33.85	43.61	47.86	44.75	99.62	48.28	9.37
AGR	158.95	-30.95	123.23	-6.94	-18.22	365.85	32.77
Max. lev.	26636.00	17027.82	3379.26	26375.56	110216.63	3693.00	2285
Min. Lev.	10286.00	4492.07	834.13	7512.40	8448.14	792.75	1674